





Annual Report 2011-12

HEC Mission

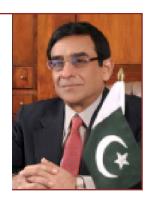
To Facilitate Institutions of Higher Learning to Serve as an Engine of Socio-Economic Development of Pakistan

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Chairperson's Message -

The Higher Education Commission (HEC) has continued to focus on faculty and human resource development, quality education, technology readiness, research and innovation despite availability of limited resources and cuts in funding. Under the leadership of HEC, the universities have assumed their new roles as producers of knowledge and research, and builders of community and economy. Improvement in the quality of academic standards and research has been the top priority of HEC. For this purpose, a multi-dimensional approach has been adopted which includes, among others, defining goals and establishing processes, training of faculty and senior management, improvement of internal performance and evaluation mechanisms,



curriculum development, accreditation of programmes, and implementation of quality standards. Universities were ranked for the first time as per global standards to inculcate a spirit of competiveness and improve quality.

A major target as per Education Policy 2008 is the increase in accessibility to higher education. For this purpose, in addition to establishing new universities and campuses, HEC is focusing on improving quality of distance learning students through improved monitoring mechanisms. The criteria for private universities have been enhanced to improve quality, with a simultaneous clampdown on sub-standard universities and programmes. Sustained and comprehensive faculty development programmes have been managed to cater to the growing needs of the universities and R&D organizations in Pakistan by awarding PhD scholarships in local and foreign universities. The number of faculty with PhD degree has increased considerably in the higher education institutions and with a significant growth in research culture, there has been an impressive increase in the number of research publications.

Meaningful research relevant to the socio-economic development of Pakistan is now being conducted at all our universities, and a spirit of entrepreneurship has been introduced. There has been a focus on technology transfer programmes, particularly through ORICS, Incubators, and Conferences and with the participation of the local industry. The institutions of higher learning have been empowered with a strong ICT infrastructure within campuses, and interconnected through a high speed backbone of Pakistan Education and Research Network (PERN). There has been a significant increase in the use of digital library. Lectures continue to be offered and shared through the state-of-the-art video-conferencing facilities available at all public universities. With the massive increase in MOOCs, an on-line policy is currently under development to take advantage of such knowledge exchange programmes through the use of technology.

The Commission has put a special emphasis on good governance, as there can be no quality in institutions without good leadership. HEC has taken measures on several fronts to tackle governance and management issues in HEIs, which aim to instil a culture of accountability, clarify administrative procedure and strengthen management performance. Capacity building initiatives include, among others, a two day orientation workshop for all newly appointed Vice Chancellors. We are thankful to our partners, particularly the USAID and the British Council, and to many other global partners and universities who have provided us the support to strengthen our higher education sector. We have finally started getting return of our investment on higher education. A significant human resource has been developed and processes and systems have gained strength. All stakeholders, including the Government, must move forward to further strengthen this institution for the youth, for the betterment of future generations, and for the prosperity of Pakistan.

———— Dr. Javaid R. Laghari

Executive Summary

The efforts made by the Higher Education Commission (HEC) during the last 10 years have revolutionized the higher education sector of Pakistan. The Commission has adopted a wholesome approach for development through research, ranging from personal development to strengthening of universities, development of research incubators, capacity development of human resource, exposure of faculty and researchers to international academia, establishing university-to-university linkages to name a few. As a result, research activities have increased manifold in both public and private sector universities and



research output in international impact factor journals has increased tremendously. Now is the time that a special emphasis be given so that this research corresponds with economic and social needs of the country. HEC has started facilitating universities to organize all research activities under the Offices of Research, Innovation and Commercialization (ORIC). During 2011-12, HEC has established ORIC at 18 institutions across the country. Trainings for selected members of ORIC were conducted on Knowledge Exchange programmes. In order to encourage research culture in the country, HEC has recognized 193 research journals, including 106 in Social Sciences, 81 in Sciences and six in multi-disciplinary category.

Various scholarship schemes launched for MS and PhD level studies within Pakistan and abroad have provided amazing opportunities to faculty members as well as fresh students to pursue their higher studies in top-notch institutions and prepare themselves to effectively contribute for strengthening the higher education sector. Out of over 6000 scholars sent abroad/financed under various programmes for MS, PhD, Post-Doc research, nearly 3000 have successfully completed their studies and returned to Pakistan. During the year under review, as many as 730 scholars completed their studies and returned to serve their country. Similarly, around 200 scholars completed their studies from local institutions of higher education while total number of indigenous scholars completing their studies exceeds 1000. Various need based scholarship programmes were also initiated to facilitate our youth to complete their higher studies in local universities especially for those students coming from less developed areas.

During 2011-12, HEC invested Rs. 1,379 million for the promotion of research and related activities. The major portion of this funding was utilized to support research proposals of the faculty to execute research activities in basic and applied disciplines through National Research Programme for Universities and access to scientific information through Digital Library Programme. During the year, 513 new research proposals from university faculty were received out of which 134 proposals were approved for funding after rigorous peer-review and technical evaluation. Over 843 faculty members and scholars were provided travel grants to proceed abroad for paper presentation. In 2011-12, Rs. 128.024 million were provided as travel grant support. Similarly, during this period 131 seminars, conferences, symposia and workshops were sponsored with the support of Rs. 66.347 million.

Under Learning Innovation initiative, faculty members from public and HEC funded private sector HEIs across Pakistan were given short and long term training courses, seminars and workshops in generic and specified areas under NAHE and ELTR projects.

HEC emphasizes the establishment of Business Incubation Centres (BIC) in public sector universities to support researchers and young entrepreneurs who intend to develop promising early-stage business ventures. During the year, two BICs were established at the University of Veterinary and Animal Sciences, Lahore and Sukkur Institute of Business Administration. Extensive trainings on knowledge exchange and business plan competition has been conducted. A steering Committee on BICs has been established to revamp the role of BICs in entrepreneurship development.

Quality Assurance Programme of the HEC has been developed with the aim to assure and enhance the quality of higher education being imparted so that Pakistani HEIs are equally compatible with international standards. The QA criteria development was the first milestone achieved by the Quality Assurance Division of HEC by developing Minimum Criteria for MPhil and PhD, Faculty Appointment Criteria, Plagiarism Policy, Tenure Track Statutes, QA Criteria for Recognition of Journals etc. These criteria are the benchmarks to be followed by all HEIs in Pakistan. The internal quality assurance processes within universities are being strengthened by Quality Assurance Agency through the Quality Enhancement Cells that are presently functioning in 69 public and 15 private sector universities of the country. Similarly, four Councils established by HEC, namely National Agriculture Education Accreditation Council (NAEAC), National Council for Teacher Education (NACTE), National Business Education Accreditation Council (NBEAC) and National Computing Education Accreditation Council (NCEAC) continue to make progress towards assigning rating to programmes through peer-review process.

HEC has been empowering the institutions of higher learning with strong ICT infrastructure through a high speed backbone of Pakistan Education and Research Network (PERN). Concrete steps were taken to provide high availability and reliability of services and applications, strong captive infrastructure to the universities. Major operational highlights over the last year include special emphasis on power management at PERN PoPs. Enhancements have been made in the video conferencing setup to improve efficiency of interactive sessions and to provide ease of connectivity. Access to reputed journals and text book were continued through our digital library programme. Provision of these facilities to all our universities is a unique opportunity for our faculty and student to get latest published material in their respective fields. In the development side, universities were asked to consolidate their activities and try to finish on-going projects rather starting new development projects. Keeping in few financial constrains very few new development projects were initiated.

In a nutshell, the Government of Pakistan's investment in higher education is already paying dividends. It is now perhaps the right time to focus consolidation of the various HEC initiatives. After a decade of frenzied progress, we must review our progress and evaluate our performance. We need to move from quality assurance which focused mainly on self-assessment to improving the quality and now dwell on the quality of our products, which are our graduating students, research outputs, learning techniques, etc. University governance is another area where lot of work need to be done. Last but not the least social integration of our institution is urgently required. More focus need to be paid on contribution to society, community building and sharing the fruits of research for the socio-economic development.

Dr. Mukhtar AhmedExecutive Director

Members of the Commission (2011-12)



Dr. Javaid R. Laghari Chairperson



Prof. Dr. A. Q. Mughal Vice Chancellor, Sindh Agriculture University, Tandojam



Engr. Syed Imtiaz Hussain Gilani Vice Chancellor University Engineering and Technology, Peshawar



Dr. Ihsan Ali Vice Chancellor, Abdul Wali Khan University, Mardan



Mr. Qamar Zaman Ch. Federal Secretary, Education and Training



Mr. Akhlaq Ahmed Tarrar Federal Secretary, Science and Technology



Mr. Abdul Jabbar Principal Secretary to Governor Balochistan



Prof. Dr. Nilofar Shaikh Former Vice Chancellor Vice Chancellor, Shah Abdul Latif University, Khairpur



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Mrs. Rozina Alam Khan Former Chairperson, Senate Standing Committee on Education & S&T



Lt. Gen. Agha M. Umar Farooq former President National Defence University



Engr. Ahmed Farooq Bazai Vice Chancellor, BUITEMS Quetta



Prof. Dr. S. Sohail H. Naqvi Executive Director Higher Education Commission

GLOSSARY

A&A Accreditation and Attestation
A&C Administration and Coordination
AAUR Arid Agriculture University, Rawalpindi

AIOU Allama Iqbal Open University
AIT Asian Institute of Technology
AJK Azad Jammu and Kashmir
APAN Asia Pacific Advanced Network
APQN Asia Pacific Quality Network

ASSMS Abdus Salam School of Mathematical Sciences

AUP Agricultural University Peshawar
AWKU Abdul Wali Khan University
BAS Business Automation System
BIC Business Incubation Centre

BIRT Business Intelligence Resource Team
BISP Benazir Income Support Programme

BOLD Barcode of Life Data Systems

BPAS Business Processes Automation System

BPM Business Process Management

BUITEMS Balochistan University of Information Technology, Engineering and Management Sciences

BZU Bahauddin Zakariya University

CALL Computer Assisted Language Learning

CASE Council for Advancement and Support of Education

CASE Centre for Advanced Studies in Engineering

CDSSHP Committee for Development of Social Sciences and Humanities in Pakistan

CDWP Central Development Working Party
CGPA Cumulative Grading Point Average

CIIT COMSATS Institute of Information Technology

CPD Continuous Professional Development

DAI Degree Awarding Institution
DAS Degree Attestation System

DDWP Departmental Development Working Party

DES Degree Equivalence System
DLP Digital Library Programme
DNS Domain Name System
DSF Degree Supplement Form

DUHS Dow University of Health Sciences
ELTR English Language Teaching Reforms

e-Rater Essay Rater

ESP English for Specific Purposes
ETS Educational Testing Service
FAQs Frequently Asked Questions

FATA Federally Administered Tribal Areas FDP Faculty Development Programme FFHP Foreign Faculty Hiring Programme
FPSC Federal Public Service Commission
FUO Federal Universities Ordinance

FUUAST Federal Urdu University of Arts, Sciences and Technology

FY Financial Year

GPA Grade Point Average

GCU Government College University
GIS Geographic Information System
HEC Higher Education Commission
HRD Human Resources Development
HRM Human Resource Management
HSSC Higher Secondary School Certificate
IBA Institute of Business Administration

ICT Information and Communication Technology

IDB Islamic Development Bank

IDRC International Development Research Centre
IEEE Institute of Electrical and Electronics Engineers

IF Impact Factor

IFIP International Federation for Information Processing

IIU International Islamic University
IMF International Monetary Fund

INASP International Network for the Availability of Scientific Publications
INQAAHE International Network of Quality Assurance in Higher Education
INSPIRE International Strategic Partnership in Research and Education

IP Internet Protocol

IPFP Interim Placement of Fresh PhDs IRP International Resource Persons

IRSIP International Research Support Initiative Programme
ISESCO Islamic Educational, Scientific and Cultural Organization

ISI Inter-Services Intelligence

ISTIC International Science, Technology and Innovation Centre

ITE Incorporating Technology in Education

KAIST Korean Advanced Institute Of Science & Technology

KIU Karakoram International University

KUST Kohat University of Science and Technology

LAN Local Area Network

LID Learning Innovation Division

LUMS Lahore University of Management Sciences

LUWAMS Lasbela University of Agriculture, Water and Marine Sciences, Uthal

M&E Monitoring and Evaluation

MNBSP Merit and Needs Based Scholarship Programme

MOAC Microsoft Official Academic Curriculum
MoST Ministry of Science and Technology

MPhil Master of Philosophy

MTDF Medium Term Development Framework

MT-FPDP Master Trainers-Faculty Professional Development Programme)

MUET Mehran University of Engineering and Technology

MUG Modern University Governance

NAEAC National Agriculture Education Accreditation Council

NAHE National Academy of Higher Education

NBEAC National Business Education Accreditation Council

NCBAE National College of Business Administration and Economics

NCE National Committee on English

NCEAC National Computing Education Accreditation Council

NCRC National Curriculum Revision Committee

NIBGE National Institute for Biotechnology and Genetic Engineering

NIS New Item Statement

NREN(s)
National Research and Education Networks
NRPU
National Research Programme for Universities
NSMC
National Scholarship Management Committee

NTS National Testing Service (NTS)

NUML National University of Modern Languages
NUST National University of Sciences and Technology
ORIC Office of Research Innovation and Commercialization

PCEPT Professional Competency Enhancement Programme for Teachers

PCST Pakistan Council of Science and Technology
PERN Pakistan Education and Research Network

PhD Doctor of Philosophy

PIREN Pan-Islamic Research and Education Network

PJSI Pakistan Journal of Social Issues
POA Pakistan Olympic Association
PQR Pakistan Qualification Register
PRR Pakistan Research Repository

PSB Pakistan Sports Board

PSDP Public Sector Development Programme

PUSB Pakistan University Sports Board

QA Quality Assurance

QAA Quality Assurance Agency
QAU Quaid-i-Azam University
R&D Research and Development

RDA Rural Development Administration RFID Radio Frequency Identification

SAARC South Asian Association for Regional Cooperation

SAC Self Access Centre

SALU Shah Abdul Latif University
SAU Sindh Agriculture University
SAU South Asian University

SBBU Shaheed Benazir Bhutto University
SBKWU Sardar Bahadur Khan Women University
SDPI Sustainable Development Policy Institute

SIU Statistical Information Unit SOPs Standard Operating Procedures

SPELT Society of Pakistan English Language Teachers

SSHRCP Social Sciences and Humanities Research Council of Pakistan
SZABIST Shaheed Zulfikar Ali Bhutto Institute of Science and Technology

TEIN TransEurasia Information Network
TELS Transforming English Language Skills
TESL Teaching English as a Second Language
TESP Tertiary Education Support Programme

TIP Textile Institute of Pakistan

TTS Tenure Track System
UAT User Acceptance Test

UBDS Universal Bioactive Delivery Systems

UCP University of Central Punjab

UET University of Engineering and Technology

UGC University Grants Commission
UHS University of Health Sciences

UITSP University Industry Technology Support Programme

UNESCO United Nations Educational Scientific and Cultural Organization

UoB University of Balochistan

UTCC University of Thailand Chamber of Commerce

VC Vice Chancellor

VSP Visiting Scholars Programme

WISE World Innovation Summit for Education

YEF Young Entrepreneurs Forum

Human Resource Development

Human Resource Development

Enhancing intellectual capacity of faculty and provision of an enabling academic environment is vital to cope with the challenges faced by our institutions of higher education. The principle focus of the HRD strategy of HEC is to provide equal opportunities for PhD level education to the youth of Pakistan in order to prepare them for taking up responsibilities as faculty members, researchers of R&D organizations and experts in their respective fields. Therefore, faculty development has remained the leading organizational activity of HEC this year as well to help strengthen the institutions of higher learning and allowing them to play their multiple academic and research roles effectively.

A sustained and comprehensive faculty development programme has been managed by the Human Recourse Development Division of HEC to cater to the needs of the universities and R&D organizations in Pakistan by awarding MPhil and PhD level local and foreign scholarships in the top universities of the world. Fresh PhDs having no jobs are offered placement in the universities of Pakistan at lucrative salaries.

Since 2003, various HRD overseas scholarship schemes have been launched for MS and PhD level studies in European Universities of Austria, France, Germany, Sweden, The Netherlands, Turkey and Italy and also in South Korea and China, where fee structure is comparatively low. A small number of scholars have also been sent to the UK, USA, Australia and Canada. A special Fulbright Programme, jointly funded by USAID and HEC, was also launched to provide opportunities to the scholars to study in USA.

An outstanding feature of the scholarship programme is transparency in the selection of candidates for award of scholarships. For the selection of suitable candidates on merit, a special Committee was constituted by the ECNEC, Government of Pakistan named "National Scholarship Management Committee (NSMC)". The Committee is also responsible for policy decisions to regulate the major HRD scholarship programmes. NSMC has representatives from all four provinces, Planning Commission, PAEC and federal ministries apart from the HEC.

HEC also offers a six-month research fellowship abroad to full time PhD students enrolled in Pakistan to enhance their research capabilities under its International Research Support Initiative Programme (IRSIP). The scheme is assisting ongoing Indigenous PhD programmes by providing a mechanism for PhD scholars to travel abroad and conduct research in advanced industrialized countries. This scheme is helping to provide doctoral students international exposure to carry out research projects of high standard. Total 1510 scholars have been provided this opportunity while 353 scholars were awarded scholarships during the year 2011-12.

The HEC Post-Doctoral Fellowship Programme provides further research opportunity at advanced level to the faculty members of universities and researchers of R&D organizations. This programme helps the researchers to improve their research skills at state-of-the-art laboratories in technologically advanced countries and to establish strong linkages with universities and research centres of the world. During the year 2011-12, 116 fellowships have been awarded.

In 2011-12, an HEC proposal was approved by the Government for award of scholarships managed by the HEC on regional quota basis. Consequently, besides maintaining a balance among various disciplines of human knowledge, regional quota is also maintained. This year also saw addition of Turkey as a major new destination for HEC scholars. A major focus in the current year was placed on helping scholars complete their respective PhDs and take up productive assignments in the academic and research institutions of the country.

Under the HRD overseas scholarship schemes, a total of 6352 scholars have been sent abroad/financed under various programmes for MS, PhD, Post-Doc research and IRSIP. Out of these, total 3437 have successfully completed their studies and returned to serve in Pakistan. During 2011-12, 888 foreign scholarships were awarded while 730 scholars completed their studies under various HRD programmes.

Detail of HEC Overseas Scholarships							
Programme	Proceeded	Completed/Returned	Completed/Returned 2011-12				
PhD Scholarships	2903	956	402				
PhD (jointly funded and closed programmes)	376	164	31				
Partial Support for PhD Studies Abroad	245	132	10				
Split PhD Scholarships	92	58	03				
International Research Support Initiative Programme (IRSIP) for Indigenous PhD Scholarships	1270	866	105				
Post-Doctoral Fellowship Programme	540	458	53				
MS/MPhil/Masters Scholarships (HEC/Jointly Funded and Others)	926	803	126				
Total	6352	3437	730				

A strict watch is kept on the scholars who complete their studies or are near completion to ensure that they return to serve Pakistan as per agreement signed by them. Defaulters are strictly dealt through decisions taken by NSMC. So far, 28 cases have been filed in the court of law for recovery against the scholars who have completed their PhD and not returned to serve Pakistan as per agreement signed with HEC. Ten scholars are paying back/paid back the cost along with penalty as prescribed by NSMC. During 2011-12, 443 scholars returned to serve the country after the completion of PhD.

	Total Overseas PhDs completed till June 2012 (Discipline/Gender -wise)									
G	ender		Discipline							
Male	Female	Agriculture	Biological	Physical	Engineering	Business	Social	PhDs	PhDs	
		and	and	Sciences	and	Education	Sciences	Returned	Returned	
		Veterinary	Medical		Technology			to date	in	
		Sciences	Sciences						2011-12	
1089	163	142	164	397	394	43	112	1252	443	

In addition to HRD overseas scholarship schemes, HEC has also launched a number of Indigenous Scholarship schemes for PhD studies in all disciplines. A total of 5,524 scholars were selected under Indigenous PhD scholarships. Out of these, 1041 have completed their PhD from universities of Pakistan.

To overcome shortage of PhDs and to provide supervisors to indigenous PhD scholars in all disciplines, HEC started faculty hiring programmes from abroad under its Foreign Faculty Hiring Programme (FFHP). Foreign nationals as well as expatriate Pakistani scientists and engineers in academia have also been invited under

HEC's Short Term Foreign Faculty Hiring Programme (SFHP) and Visiting Scholars Programme (VSP). The Foreign Faculty Hiring Programme (FFHP) has entered its 9th year of commencement. A total of 325 foreign professors joined the programme and 107 are currently serving in various institutions/universities of Pakistan. During 2011-12 around 35 foreign professors visited the public sectors universities under SFHP and 25 under VSP). The foreign faculty has been serving in various public and private institutions as an agent of change for the creation of research environment and leadership. HEC Distinguished National Professors programme was also launched in 2003 to recognize the dedicated services of the eminent Professors and Scientists in their specialized fields. The positions of Distinguished National Professors were created to benefit from their research experiences. Forty-one Distinguished National Professors have been selected by the HEC since the commencement of the programme while seven Distinguished National Professors are currently onboard.

	PhDs Completed under Indigenous Scholarships (Discipline -wise/Gender-wise)									
G	ender		Discipline							
Male	Female	Agriculture and Veterinary Sciences	O	Physical	and	Arts and Humanities	Business Education		PhDs Completed to date	PhDs Completed in 2011-12
842	199	203	197	408	107	17	38	71	1041	198

To support the economically deprived scholars studying at home, HEC continued its efforts by managing foreign and locally funded "Need Based" scholarship programmes at graduate and undergraduate level. The theme of the programmes is to extend help to those students who are good in academics but lack the resources and may leave education if not financed. HEC need based scholarship programme was also launched in 2011-12 while 891 scholarships have been awarded under the scheme. Total 1465 need based scholarships have been awarded under different need based schemes during the year. In addition, a major scholarship programme for FATA and Balochistan is also being undertaken since 2007 to address the issues of less privileged areas of Pakistan. The project has achieved the target of awarding 2000 indigenous graduate and postgraduate level scholarships. During 2011-12, 441 undergraduate and 386 postgraduate scholarships were awarded. This year 45 scholars completed their degrees, out of which five scholars got distinction in their studies. In 2011-12, HEC awarded 3715 foreign and indigenous scholarships under its various schemes while 1193 scholars completed their studies. The following table provides the details in this regard.

	Scholarships Status 2011-12							
S. No.	Scholarship	Advertised	Awarded	Proceeded /Joined	Completed			
1.	Overseas PhD Scholarships	714	374	270	402			
2.	Overseas PhD (Partial Support)	-	45	45	10			
3.	Fulbright MS and PhD (Overseas)	-	-	104	114			
4.	IRSIP (Overseas)	-	353	154	105			
5.	Indigenous PhD Scholarships	650	535	535	198			
6.	Scholarships for FATA and Balochistan (Indigenous)	827	827	775	45			
7.	Needs-Based Scholarships (Indigenous)	Direct/ through universities	1465	1465	273			
8.	Post-Doc Fellowships (Overseas)	-	116	82	53			
	Total	2765	3715	3430	1193			

Through the introduction of Faculty Development Programme (FDP) in 2005, the faculty of public sector degree awarding institutions (DAIs) of Pakistan has been provided opportunity to complete PhD from the reputed institutions of technologically advanced countries. There are 109 development projects having HRD component for 41 Pakistani universities. All Universities/DAIs running FDP under the umbrella of HEC have their own approved projects. The scholars are selected under the HEC scholarship criteria. The role of HEC is to monitor and coordinate with the universities. Under the FDP programme, 1932 overseas scholarships have been awarded for MS leading to PhD and PhD programme, out of these 551 have completed their studies successfully and returned to their parent institutions. HRD Division regularly monitors the progress of its scholars and manages their placement after completion of their PhD as faculty member in the universities of the country at handsome salary structure provided by the Tenure Track scales. Interim Placement of Fresh PhDs (IPFP) programme of HEC provides all Pakistani fresh PhD graduates an opportunity for one year to start their career as Assistant Professor in public or private university. Under the programme, during 2011-12, 483 scholars were placed as faculty members in various educational institutions.

Pakistan has now started getting the return on its investment of higher education. Effectiveness of faculty development and promotion of research culture in Pakistan is evident from the results of forecasting exercise "How World Scientific Output will be in 2018" conducted by SCOPUS, the world's largest abstract, citation database of research literature and analytical tool, stating that Pakistan is expected to register the second highest increase in research output ranking in the world.

Overseas PhD Scholarships

The process of sending scholars abroad for MS/MPhil leading to PhD continues while scholars of early batches sent by HEC are returning home to serve the country. HEC signed MoUs with educational exchange agencies and universities aboard for the successful implementation of the scholarship schemes for the admissions, monitoring of its scholars and discounted tuition fee. The agencies include DAAD (Germany), SFERE and EGIDE (France), NUFFIC (Netherlands), KTH (Sweden), CSC (China), OAED (Austria), apart from the Massey and Auckland University of New Zealand. These efforts continued and new MoUs have been signed with the universities of Turkey and Italy in 2011-2012. The following table provides the detail of existing foreign PhD scholarship schemes and the approved number of scholarships.

Scholarship Schemes	Number of Scholarships
Overseas Scholarships for MS/MPhil Leading to PhD in Selected Fields (Phase -II)	2000
Overseas Scholarships for PhD in Selected Fields (PhaseI)	800
Human Resource Development Initiative MS leading to PhD for Faculty Development Programme for the UESTPs (Phase-I)	1500
MS/MPhil leading to PhD Scholarship in Engineering, Natural and Basic Sciences/ Humanities/ Social Sciences, for the Teachers of Weaker Universities	100
PhD Scholarship for Study of Science, Engineering and Technology, Austria	55
PhD Scholarship in Natural and Basic Sciences, Austria	45
PhD Scholarship for Natural and Basic Sciences, France	40
PhD Scholarship in Engineering and Sciences, Germany	40
Masters leading to PhD in Economics and Finance Abroad	50

A total of 2903 PhD/MS leading to PhD scholarships have been awarded under the above mentioned schemes. So far, 949 scholars have completed their PhD and returned back while 402 scholars completed their PhD during 2011-12. The country and discipline wise detail of the scholarships awarded is as under:

Overseas PhD Scholarships Awarded till June 2012									
				<u> </u>	Discipli				
		Engineering and	Physical	Biological and Medical	and Veterinary	Social	Business	Arts and	
S. No.	Country	Technology	Sciences	Sciences	Sciences	Sciences	Education	Humanities	Total
1.	FRANCE	203	108	60	115	55	48	12	601
2.	NETHERLANDS	42	65	23	51	22	16	3	222
3.	AUSTRIA	71	192	47	23	30	17	3	383
4.	GERMANY	139	130	63	47	32	6	7	424
5.	NEW ZEALAND	38	36	11	18	16	20	15	154
6.	CHINA	101	27	20	26	7	7	1	189
7.	SWEDEN	76	73	27	16	0	0	1	193
8.	AUSTRALIA	4	0	10	12	14	5	1	46
9.	CANADA	4	2	0	2	2	0	0	10
10.	UNITED KINGDOM	36	35	54	24	67	13	10	239
11.	USA	17	5	0	0	9	2	1	34
12.	NORWAY	15	22	4	2	9	2	0	54
13.	SOUTH KOREA	111	14	14	1	5	3	0	148
14.	Italy	96	22	0	1	0	0	0	119
15.	Thailand	33	8	2	9	12	8	0	72
16.	Turkey	8	3	4					15
	Total	994	742	339	347	280	147	54	2903

• Overseas Scholarships for MS/MPhil Leading to PhD in Selected Fields (Phase-II) This scholarship programme continues to process awards for PhD studies at top ranked institutions of USA, UK, Canada, Australia, Austria, China, France, Germany, Netherlands, Norway, Sweden, Thailand, Italy and New Zealand etc. Most of the countries and universities are offering discounted tuition fee to HEC where a good number of scholars are being placed for doctoral programme.

Since the initiation of the project, 1528 candidates have availed the scholarship. Out of these, 964 are currently studying abroad in seven major disciplines i.e. 115 in Agriculture, 164 in Biological & Medical Sciences, 250 in Physical Sciences, 245 in Engineering and Technology, 54 in Business Education, 108 in Social Sciences and 28 in Arts and Humanities; 333 scholars have successfully completed PhD under the programme.

During the year, HEC arranged interviews for award of scholarships for PhD studies in leading universities of South Korea, China, Germany, Austria, Thailand, UK, USA, Canada and Australia, whereby 127 scholars were selected by the foreign Professors. While 216 scholars returned, during 2011-12, after successful completion of their PhD.

Signing of New MoUs

In 2011-12, The Project Management Unit continued its efforts to find new agencies/partners to support HEC scholars. In April 2012, MoUs were signed with the following Turkish Universities:

- Istanbul Technical University, Istanbul, Turkey
- · Middle East Technical University, Ankara, Turkey
- Sabanci University, Turkey
- Bilkent University, Turkey

Foreign Funded PhD Positions Secured by Scholars

During the year 2011–12, many HEC scholars, due to their excellent academic achievements, secured partial foreign funding to complete their PhD studies.

Country	Country-wise Detail of Foreign Funded PhD Positions Secured by OSS-II Scholars					
S. No.	Country	Number of Scholars				
1.	Austria	10				
2.	France	10				
3.	Germany	10				
4.	The Netherlands	36				
5.	New Zealand	2				
6.	Sweden	35				
	Total	103				

Distinctions Earned by OSS-II scholars

Patent Filed

Dr. Saeed Gul completed his PhD studies from Vienna University of Technology, Austria. A patent has been filed of some of his published PhD work (Method and device for concentrating material solutions). Based on this patent and considering the significance of the invention, a project application for the design and start-up of a prototype titled "Energy efficient process for the concentration of valuable product solutions", the scholar received €150000 grant from the Federal Ministry of Economics and Research, Austria, giving him an opportunity to develop a prototype to test the new technology on pilot scale. In recognition of that project he was awarded the highly endowed scientific prize award "PRIZE2010" by the Federal Ministry of Science and Research. His research work was



also recognized in the 14th International Conference on Process Integration, Modelling and Optimization for Energy Saving and Pollution Reduction (PRES'11) held in May 2011 in Italy, where he was awarded the 1st prize in the Competition for the Best Poster Zdenek Burianec Memorial Award for the paper entitled "Energy Saving in Sugar Manufacturing with the Implementation of New Membrane Process."

First Pakistani to Win Austrian Life Science Award

Dr. Mariam Anees, an HEC scholar, became the first Pakistani to receive the highly prestigious 'Austrian Life Science Award' along with a cash prize of € 10,000. She was awarded for her contribution to clinical research in the working group of prostate cancer. Her publication titled "Recurrence-free survival in prostate cancer is related to increased stromal TRAIL expression" was a joint study by Medical University of Vienna, Austria and Harvard Medical School, USA, and was selected as the best scientific publication by a young scientist. The award ceremony was held at Schönbrunn Palace in Vienna.



According to the study findings, a protein 'TRAIL', involved in the tumour immune surveillance, is highly altered in prostate cancer cells and its presence in the tumour microenvironment improves the survival prospects of the patients. Dr. Mariam has managed to find evidence for more accurate forecasts and innovative therapies for advanced prostate cancer.

Patent Filed

Dr. Zaffar Mehmood completed his PhD from the University of Queensland, Australia. His research title was "Preservation of Fresh Foods with Phytochemical Loaded Nanoemulsions". During the course of his research, he invented a new technology called Universal Bioactive Delivery Systems (UBDS). A patent application is filed in Australia and USA for the same. After initial contact with major multinational manufacturing companies, it was found that the technology is highly significant and can be used as a platform technology. This platform technology can be used for various purposes such as pharmaceuticals, nutraceutical, food, agriculture and natural medicines.



He was also granted a research funding for further exploring the potential of technology from UniQuest under its Pathfinder Programme and he carried out preliminary work on technology development for preservation of fresh foods such as poultry and beef meat, fruits and vegetables etc. He also worked on solubility of natural medicines including Rhadioloa extract and propolis and carried out further work on delivery nuetraceuticals to the infant formula powdered milk. His work was recognized at International Food Conference in Melbourne and his poster was awarded as "Most Innovative Research" with a cash prize and a certificate.

Excellent International Student Award

Dr. Muhammad Ishaq Asif Rehmani, who recently completed his PhD from Nanjing Agricultural University (NAU), China received Excellent International Student Award for the year 2011 in Agronomy with specialization in Agroclimatology and Environmental Ecology.



Dr. Rehmani, recipient of HEC scholarship programme "Overseas Scholarships for MS/MPhil leading to PhD in Selected Fields" (Phase - II) won this award for the second time. During 2011, seven students were selected as excellent international students based

on their academic achievements from more than 150 international students from 30 countries registered at NAU.

Overseas Scholarships for PhD in Selected Fields (Phase-I)

Overseas Scholarship Scheme for PhD in Selected Fields - Phase 1 (OS-1), the first-ever mega project for PhD scholarships, was approved in January 2004 by ECNEC and execution period of eight years, with the objective to create a critical mass of highly qualified human resource to improve the R&D potential of our teaching and research institutions, training potentials of our universities, and to feed the industrial entrepreneurial sector of Pakistan.

As many as 687 scholars preceded to the high ranking universities of Asian and European countries i.e. Australia, Canada, USA, UK, France, Germany, Sweden, Netherlands, China, Austria and New Zealand. So far, 449 scholars have successfully completed their PhD and have returned home. A total of 123 returned scholars of OS-1 have been placed in Pakistani universities under the Interim Placement of Fresh PhD programme of HEC while 203 scholars have rejoined parent organizations.

During 2011-12, 144 scholars completed their PhDs and returned home and joined the universities/R&D organizations in Pakistan. After reviewing the financial and physical status of the project, National Scholarship Management Committee (NSMC) allowed for new intake of 70 scholars to fill the vacant slots within approved cost of the project.

Distinctions Earned by the Scholars of OS-1 Programme

Brilliant Performance

Dr. Waheed Samraiz Khan completed his PhD from Beijing Institute of Technology in Nanotechnology. The topic of his research was "Synthesis, Characterization, Growth Mechanism and Properties of Zn & Cd based Nanomaterials with Novel Morphologies". The scholar published 22 research articles as principal or co-author in the accredited journals of prestigious publishers like Elsevier, IOP, ACS, RSC, ASP etc with cumulative impact factor of about 50. He also won the title of "Excellent International Student at BIT" for the year 2010. He has re-joined his parent organization.



Dr. Samraiz was a very active student and arranged admissions of 19 Pakistani youngsters in various Chinese Universities for PhD/MS studies funded by Chinese Government Schemes including CSC Scholarships and Chinese Universities Funded Programmes e.g. Chancellor's Scholarship at University of Science and Technology Beijing.

Distinction Earned

Dr. Hammad Hassan from Mardan, KPK completed his PhD with distinction from Institute of Immunology, Medical University of Vienna, Austria in Immunology. His thesis title was "Transcriptional control mechanisms of Cd8a gene expression in naïve and effector CD8+ T cells". The scholar is motivated to contribute in the development of country by finding cures for diseases, transfer of knowledge based skills to youth and integration of industry and research institutions. Dr. Hassan won the PhD dissertation prize from the Association for the Advancement of Science and Research, Medical University of Vienna, Austria. The scholar has joined Sarhad University, Peshawar.



Honoured with "European Doctorate"

Dr. Salik Hussain successfully completed PhD in the domain of Cellular Toxicology/Nanotoxicology with highest distinction from Université Paris Diderot, Paris, France. Dr. Hussain was additionally honoured with label of "European Doctorate". He was the first student from his university who fulfilled the requirements for the attribution of this honour. The scholar explored the adverse health effects of engineered nanoparticles using in vitro and in vivo cellular/molecular and diseased animal model approaches. During his graduate research the focus of in vitro studies was to understand the nature and signalling of different biological mechanisms (cell death, inflammation) induced by nanoparticle exposures in airway epithelial cells. Two chemically distinct model nanoparticle types



(carbon black and titanium dioxide) were chosen for these studies and work was done on transformed as well as primary airway epithelial cells. The focus of his in vivo studies was to evaluate the effects of nanoparticles in susceptible populations. Animal models of respiratory and skin disease were explored to study the effects of titanium dioxide and gold nanoparticles. Dr. Hussain published eight articles in the top ranked journals of his domain. During his scholarship period he presented his work in multiple international conferences in Europe and USA and won best presented work award in the 11th International Inhalation Symposium in Hanover, Germany. Dr. Hussain is serving a Pharmaceutical Company in Pakistan.

PhD Completed with Honours

Dr. Haroon Akbar successfully completed his PhD with best possible note in France "Très honorable avec félicitations du jury" in Life and Health Sciences, Parasitic Immunology from Université François Rabelais de Tours, France. His thesis title was "Role of regulatory T cells in a murine model of acute toxoplasmosis". Dr. Akbar won the Best Oral Presentation Award at Doctoral School of Health, Science and Technology, Université François Rabelais de Tours, France. The title of talk was "Depletion of Regulatory T cells during Toxoplasmosis". The scholar was also awarded an additional honorary degree of Doctorate from the University. He has joined back his parent organization, University of Veterinary and Health Sciences, Lahore.



First HEC Scholar Defends PhD Thesis via Video Conferencing

Dr. Muhammad Naveed Zafar successfully defended his PhD thesis via HEC video conference facility at Islamabad head office. The jury was present at the University of Auckland, New Zealand. Dr. Naveed was selected for PhD studies under the "Overseas Scholarship scheme for PhD in Selected Fields" – Phase-1 for New Zealand. He proceeded abroad in 2007 and completed his PhD in Chemistry from the University of Auckland under the supervision of Professor James Wright. His PhD thesis title was "Development of New Ligands for Homogeneous Transition Metal Catalysts". Dr. Naveed is of the view that the opportunity of studying in a multi-cultural and multi-ethnic environment in Auckland broadened his horizon and understanding towards better and successful life. He is proud of being the first PhD of his entire family. Dr. Naveed has joined GC University Lahore as Assistant Professor.



• MS leading to PhD under Faculty Development Programme for UESTPs (Phase-I) HEC announced the scheme for scholars in Engineering Sciences and Technology. With the objective to produce 1500 PhD engineers and scientists who would be potential faculty members and academic resource persons for the Universities of Engineering Sciences and Technology in Pakistan. The first batch of 144 scholars was sent abroad for PhD in different disciplines of engineering in European countries and China, three scholars have successfully completed their PhD Studies from China and have been placed through IPFP programme of HEC. In September 2011, 400 scholarships were advertised under the HRDI–UESTPs scheme. Total 1700 applications were received, out of that 900 eligible applicants were short listed for further processing. The detail of 249 awarded scholarships by June 2012 is as under:

	HRDI-UESTPs Batch-II							
S. No.	No. Country PhD MS leading to PhD							
1.	Italy	30	33	63				
2.	South Korea	75	21	96				
3.	China	19	52	71				
4.	Turkey	0	17	17				
5.	France	1	0	1				
6.	Canada	1	0	1				
	Total	126	123	249				

MS/MPhil leading to PhD Scholarship for Teachers of Weaker Universities

This project was approved in August 2004. The basic objective of the scheme was to create a critical mass of highly qualified manpower in high-tech fields and capacity building of the Weaker Universities in Pakistan through addition of 100 PhDs in priority fields of Engineering, Natural and Basic Sciences and Social Sciences/Humanities. 100 scholarships were allocated by November 2007 while 98 scholars proceeded to Austria, France and Germany to join their studies during August 2006 to July 2008.

University-wise Distribution of Scholars Sent Abroad from Various Weaker Universities

Name of University	Austria	France	Germany	Total
Hazara University Dhodial, Mansehra		01	07	08
Gomal University, D.I. Khan		02	04	06
Kohat University of Science and Technology, Kohat		01	01	02
Karakuram International University, Gilgit		01	02	03
University of Malakand, Chakdara, Dir, Malakand		02	01	03
University of AJK, Muzaffarabad	02	02	02	06
Quaid-e-Awam University of Engineering,	0.1	0.5	0.2	00
Sciences and Technology, Nawabshah	01	05	02	08
Shah Abdul Latif University, Khairpur		02	02	04
Sindh Agriculture University, Tandojam	02	04	07	13
Government College University, Faisalabad		03	04	07
Islamia University, Bahawalpur	03	03	03	09
University of Sargodha, Sargodha	03	08		11
University of Baluchistan, Quetta		05	05	10
Balochistan University of Eng. & Tech., Khuzdar		02	01	03
Balochistan University of IT and Management Sciences, Quetta		04	01	05
Total	11	45	42	98

Prominent Scholars

Dr. Ihsan Ullah, a native of Malakand, completed his PhD from Université de Technologie de Troyes, Environnement des Réseaux autonome, Troyes, France. He completed his PhD in November 2011 with thesis title 'Towards User-aware Peer-to-Peer Live Video Streaming Systems' under the supervision of Dr. Guillaume Doyen and Prof. Dominique Gaïti.

The main focus of his research was the impact of user behaviour over the quality of streaming and overall performance of the system. In order to adapt these systems to different behaviours, machine learning techniques were explored and utilized. During his PhD research, he managed to publish two articles in international journals, four in the proceedings of international conferences and two in national (French) conferences. His paper got the runner up Cisco award in IFIP international conference AIMS'2010. Dr. Ihsan after returning to Pakistan has joined his parent organization, University of Balochistan.

Dr. Rehana Naz completed her PhD from Georg August University of Göettingen, Germany, which is ranked fourth among German universities. She was registered as a PhD Scholar in April 2007 in Department of Molecular Phytopathology and Mycotoxin Research.

She completed her PhD in November 2011 entitled 'Chemical and Genetic diversity in Sesame (Sesamum indicum L.)' under the supervision of Prof. Dr. Petr Karlovsky. She analyzed the diversity and variance in Phytohormone content among sesame accessions. The study of Phytohormone in sesame is pioneering work. No data on Phytohormone in



sesame were published before. Antifungal properties of sesame crude extract and some of purified sesame lignans were also studied. In third part of her research, she studied inheritance of metabolic pattern in segregating population of sesame that opened new avenues in molecular diversity research. Dr. Naz presented twice her PhD research in conferences i.e. "Tropentag 2010" ETH University of Zurich, Switzerland and "Tropentag 2011" University of Bonn, Germany.

Malik Sajjad Ahmed Nadeem completed his PhD from Université Paris-13, France. After successful completion of Masters by securing 4th position, Sajjad was registered as a PhD scholar in the Université Paris-13, France under the supervision of Prof. Dr. Jean-Daniel Zucker and Dr. Blaise Hanczar.

The scholar completed his PhD in October 2011 under the title "Classification with a reject-option to improve transcriptomic data based decision support systems". The main focus of his research was to find ways in-order to improve the reliability of the decision support systems in medical field which are based on transciptomic data. For this purpose different



machine learning and data mining techniques were explored and a new approach for having a better and more accurate decision support system was proposed. Moreover, graphical methods to represent the results of complex analysis of biomedical data were investigated. Empirical results showed the usefulness of the proposed methodologies. During his PhD research, he managed to publish an article in an international journal (Journal of Machine Learning Research) and five in the proceedings of international conferences.

"During my stay in France and while participating in conferences and workshops, I listened, contacted, interacted and discussed with scientists and researchers of my field. I have also contacts with people of

different nationalities and hence different cultures and backgrounds which gave me the idea about how people think, behave and react under different circumstances and have ideas about the same research problem. All this played a key role in my research, professional, and personal grooming", Dr. Sajjad told. The scholar is serving as Assistant Professor in the Department of Computer Sciences and Information Technology, University of Azad Jammu and Kashmir, Muzaffarabad.



Dr. Faisal Maqbool Zahid, lecturer at the Department of Statistics, University of Agriculture, Faisalabad, completed his PhD with the mention of 'Magna cum Laude' from Institute for Statistics Ludwig-Maximilians-University, Munchen, Germany in Physical Sciences. His thesis title was "Sprinkage estimation for categorical regression models". He has eight international publications to his credit and wrote a book titled 'Regularization and Variable selection in categorical regression analysis' in 2011.

Dr. Nasir Mahmood, lecturer in the Department of Biotechnology and Informatics at the Baluchistan University of Information Technology and Management Sciences, Quetta, completed his PhD from INPL Nancy University, France. He completed his thesis on "A case study of different hydrodynamic and nutritional constraints on Streptomyces used for the production of antibiotic" and has one local and three international publication to his credit.



Dr. Jabbar Khan, lecturer in the Gomal Centre of Bio-Chemistry, Gomal University, Dera Ismail Khan, completed his PhD from Institute of Genetics and Development, Faculty of Medicine, Rennes 1 University, France in Physical Sciences. His thesis topic was "Relationship between Aurora Kinase C and Cancer". He has 10 international publications to his credit.



Dr. Nadeem Salamat, lecturer in the Mathematics Department, Karakorum International University, Gilgit, Baltistan completed his PhD with a mention of 'Honorable' from University de la Rochelle, France in Physical Sciences. He completed his thesis on "Dynamic space relations between objects for scene analysis". He has seven international publications to his credit.

PhD Scholarships for Study of Science, Engineering and Technology, Austria

The project was initiated in the year 2003 to award 55 PhD scholarships in the field of Sciences, Engineering and Technology to the teachers and researchers of public sector organizations throughout Pakistan. Under the scheme, 54 scholars were awarded scholarships for PhD studies in Austria. Fifty scholars have successfully completed their studies, 47 have returned after completion of studies while three cases of scholars, who have not returned, are in the court of law. During 2011-12, one scholar completed his PhD and returned to Pakistan.

PhD Scholarships in Natural and Basic Sciences, Austria

The scheme envisaged PhD level training of 45 outstanding public sector university/college teachers and employees of research organizations in the field of Basic and Natural Sciences at reputed universities in Austria. Under the said scheme, 43 scholarships were awarded to individuals from all around the country to pursue PhD degree programmes. Thirty-nine scholars have completed their PhD degrees while one scholarship has been cancelled due to poor academic performance of the scholar. Two cases of not returning scholars are in the court of law. During 2011-12, eight scholars successfully completed their PhD degrees while some of them also got distinction.

PhD Scholarships for Natural and Basic Sciences, France

Under the scheme, 33 teachers of colleges and universities of Pakistan were awarded scholarships for PhD level studies in the fields of Natural and Basic Sciences in the top universities of France. This programme has enabled the scholars to develop linkages with their counterparts working in reputed universities in developed countries. So far, 32 scholars have successfully completed their PhD and are serving their parent organizations in Pakistan. During the year 2011-12, six scholars returned after they successfully completed their PhD.

Completion of PhD in Minimum Time

Dr. Abdul Wahab, lecturer in COMSATS Institute of IT, completed his PhD only in two years. He was selected for MS leading to PhD studies in Applied Mathematics under HEC's foreign scholarship programme PhD in Natural & Basic Sciences, France. During his PhD, he worked on mathematical techniques related to biomedical imaging. He has published/submitted eight research articles in leading ISI journals. He has also written a book chapter published by Springer-Verlag.



The scholar presented two posters and delivered several invited talks in international conferences and seminar series. It is worth mentioning that Dr. Abdul Wahab is the fifth Pakistani to complete PhD from Ecole Polytechnique, a prestigious French university. The scholar has rejoined his parent organization.

PhD Scholarships in Engineering and Sciences, Germany

The project provides scholarship facility to 40 full-time teachers of public sector universities, degree awarding institutions and colleges and employees of R&D organizations at doctoral level studies in the field of science and technology in reputed universities of Germany. Thirty three scholars have successfully completed their PhD so far and have joined universities and R&D organizations in Pakistan. In 2011-12, one scholar returned after completion of his PhD. Four scholars are currently studying in Germany and are expected to complete their studies in 2013.

· Masters Leading to PhD in Economics and Finance abroad

The project was approved by the ECNEC in January 2005. It provides scholarship facility to 50 full-time teachers of public sector universities and employees of R&D organizations at doctoral level in the field of Economics and Finance in reputed universities of the world. Forty two scholars continued their studies in reputed universities of France, Germany, The Netherlands, UK, Austria, New Zealand, Australia and USA. This year, six scholars have successfully completed their PhD and have joined their parent organizations. Remaining scholars are expected to complete their studies in 2014.

Successful Scholars

Dr. Muhammad Nadeem Javaid from a small village of district Muzaffargarh completed his PhD degree from University of Nice Sophia Antipolis, France. His research topic was "Financial System and Technological Catching-Up; A Quantitative and Qualitative Analysis of the Wealth of Nations" in 2011. Dr. Nadeem has joined LUMS as Assistant Professor under the HEC's Interim Placements of Fresh PhDs Programme.

Dr. Moazzam Farooq from Karachi completed his PhD from Netherlands. His thesis title was "Essay on financial Intermediation and Markets". He also presented a paper at Harvard University Conference on "Islam and Muslim Societies: An Analytical Examination". He was also selected for globally competitive IMF Fund Internship Programme for PhD students. Dr. Farooq has rejoined his parent organization, State Bank of Pakistan.

Dr. Kabeer Muhammad from Lahore completed his PhD from France under the supervision of Prof. Jean Marc Siren. His research was focused on to find out the possibility of currency or Monetary Union in South Asia especially among the SAARC countries. Dr. Kabeer has rejoined his parent organization, State Bank of Pakistan.



Dr. Tasneem Zafar from Lahore completed her PhD from Economics and Business Education Institute, University of Frankfurt, Germany in the supervision of Prof. Dr. Alfons J. Weichenrieder. Her thesis title was Business Taxation in Developing Countries. Her PhD work encompasses diversified illustration on the investigation ranging from evaluation of income distribution, effect of growth and inequality on welfare assessment, to generalized trust, importance of social networks for economic growth and the effectiveness of foreign aid.



The scholar is motivated to contribute in the development of private and Government sector of Pakistan. Dr. Tasneem has rejoined her parent department, Government College University, Lahore.

Overseas MS Scholarships

MS-Level Training in Korean Universities

This HEC-PSDP project aimed to provide 200 scholarships to young engineers, for pursuing MS-Engineering studies along with hands-on industrial training opportunities in South Korea. This project was initially rolled out in September 2006 with a total life of six years.

All 200 scholars were sent in seven different batches. The last batch was sent in Fall 2010. The last two batches have returned to Pakistan in the year 2011-2012. Thus, all the scholars have returned to Pakistan after successful completion of their MS Engineering studies by April, 2012. The engineering graduates of MS Programme Korea were enrolled in MS (Engineering) programmes at the top ranking universities of South Korea including Seoul National University, Hanyang University, Korean Advanced Institute of Science and Technology (KAIST), Myongji University, Yonsei University and Kyungpook National University.

These scholars carried out research in 10 diversified fields of engineering and have produced more than 250 research publications. The scholars after successful completion of their education from South Korea joined different universities and R&D organizations in Pakistan to complete their mandatory service requirement. Out of 200 returned scholars, 131 scholars have been employed and 24 scholars have been allowed for PhD studies on fully funded scholarships from foreign universities, having no financial liability on HEC.

These scholars have to serve Pakistan for a minimum of two years after completion of their PhD studies. These scholars are continuing their studies in various universities of South Korea, Australia, UK, Singapore, Italy and Canada. 60 scholars have completed their mandatory service till the end of financial year 2011-2012.

4th Convocation Ceremony

In June, 2012 PMU South Korea arranged convocation ceremony of 25 scholars, who had returned to Pakistan, at HEC Islamabad. The Convocation was arranged to confer degrees to the returned scholars of Batch-VI and VII. H.E. Mr. Choongjoo CHOI, Ambassador of Republic of Korea was the Chief Guest.

The Ambassador lauded the efforts of Higher Education Commission for improving the standards in higher education sector of Pakistan. He assured continuous cooperation and support of Korean government to Pakistan especially in higher education sector.



Speaking on the occasion, the Chairperson HEC, Dr. Javaid R. Laghari thanked the Korean Government for providing opportunities to young talented Pakistani engineers for doing research work at advanced research labs and reputed Korean universities. He stated that 45% of total HEC budget is being spent on human resource development in Pakistan. Addressing the occasion, Executive Director HEC Prof. Dr. Sohail H. Naqvi said that Korea's 95% higher education literacy rate, active university industrial linkages and technological developments are a role model for Pakistan.

Indigenous PhD Scholarships

The objective of the Indigenous Scholarship Schemes is to create a critical mass of highly qualified human resources in all fields of studies taught at the advanced level in local universities. These locally qualified academics and researchers shall improve the R&D potential of local universities, public as well as private, and shall also add value to the local industrial sector.

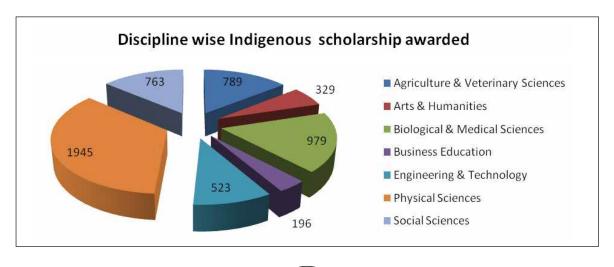
With the launching of the schemes, the research culture in public/private sector universities has been developed in accordance with international standards. This project caters for diversified disciplines belonging to all fields of Science and Technology, Social Sciences, Humanities and Life Sciences. To enhance the research facilities in these fields, HEC has funded many universities to establish research laboratories. This has brought tremendous change in research culture of the universities of Pakistan. It is evident from the publication of around 3,100 research papers in national/international journals addressing social and economic problems of the country.

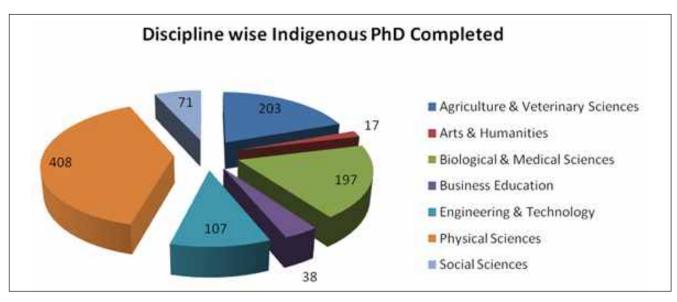
Number of Scholarships Available under various Indigenous Scholarship Programmes

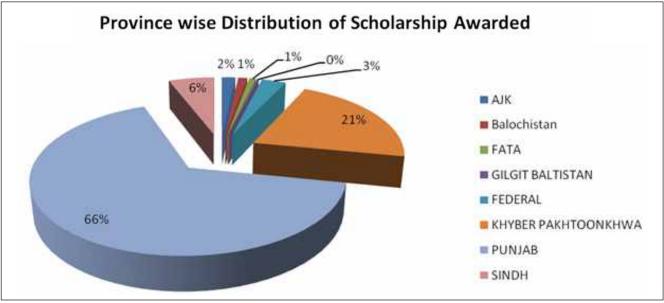
Scholarship Scheme	Number of Scholarships			
Indigenous PhD Fellowship Programme	5000			
Indigenous PhD Fellowships- Phase-II	5000			
Merit Scholarship Scheme for PhD Studies in Science and Technology	200			
Development of S&T Manpower through Indigenous PhD	300			
Scholarship for PhD Studies in Social Sciences, Arts and Humanities for University Teachers	175			
Development/Strengthening of Selected Departments of Social Science and Humanities in General Universities	15			

Discipline-wise and Scheme-wise Detail of Indigenous Scholars

Discipline/Project	Development of S& T Manpower Through Indigenous PhD		Ph.D. Fellowship for 5000 Scholars		Merit Scholarships for S & T Manpower		Scholarship for Ph.D. Studies in Social Sciences, Arts & Humanities for University Teachers		Development/ Strengthening of Selected Departments of Social Sciences & Humanities		Total Summary	
	Awarded	Completed	Awarded	Completed	Awarded	Completed	Awarded	Completed	Awarded	Completed	Awarded	Completed
Agriculture & Veterinary Sciences	59	42	683	127	47	34	0	0	0	0	789	203
Arts & Humanities	0	0	303	12	0	0	26	5	0	0	329	17
Biological & Medical Sciences	19	19	930	155	30	23	0		0	0	979	197
Business Education	0	0	179	25	0	0	17	13	0	0	196	38
Engineering & Technology	73	53	409	31	41	23	0	0	0	0	523	107
Physical Sciences	89	69	1806	289	50	50	0	0	0	0	1945	408
Social Sciences	0	0	690	57	0	0	58	12	15	2	763	71
Grand Total	240	183	5000	696	168	130	101	30	15	2	5524	1041







Indigenous PhD Fellowship Programme (5000 Fellowships)

This mega project was approved by ECNEC in November 2007. A total of 5000 scholarships were to be awarded over a period of 5 years. The targets of 5000 scholarship have been achieved and scholars are pursuing their studies in various universities/DAIs, out of these 240 were provisionally selected and are completing their mandatory documents; 696 candidates have completed PhD till June 2012. During 2011-12, 535 scholarships have been finally awarded; 198 scholars completed their PhD studies, research articles by scholars published in HEC recognized journals number 1273.

Policy Decisions and Implementation for Smooth Execution of Scheme

- Provision of laptop has been granted to every scholar after successful completion of PhD.
- Payment of support to university, tuition fees etc. to universities as per actual or maximum Rs. 225,000 per annum.
- If there is a gap/transition period in the studies, the scholars shall be facilitated by extending the award period where overall period of scholarship may not exceed the PC-1 limit of the scheme i.e. five years.

- National Scholarship portal has been launched first time to receive online application forms for Indigenous PhD fellowship programme Phase II.
- Keeping in view the capacity and to provide maximum opportunity to the scholars from less developed provinces, the approval from ECNEC to distribute the remaining available slots as per Federal Government Quota Policy was initiated which has now been granted.

Indigenous PhD (5000 Fellowships) Phase-II

Keeping in view the need for the PhD faculty in the universities and highly skilled manpower for the R & D institutions of Pakistan, HEC completed all initial work /research to launch indigenous scholarship scheme, Phase II. A PC-1 of Indigenous PhD fellowship programme for 5000 scholars with the capital cost of Rs. 9,972.593 million with an execution period of 120 months has now been approved. First batch of the said programme is being advertised by adopting Federal Government Quota policy for the selection of the scholars rather than open merit policy to facilitate the applicants from less developed provinces of Pakistan.

 Merit Scholarship Scheme for PhD Studies in Science and Technology (200 Scholarships)

The main objective of the project was to produce 200 fresh and in-service PhDs in the all fields of Science and Technology within country on open merit. The target was later reduced and the project was closed at the total 168 ongoing PhD scholars. Out of these, 130 scholars have completed PhD and joined their organizations. During the year 2011-12, four scholars completed their doctorate and nine submitted their thesis for external review.

Development of S&T Manpower through Indigenous PhD (300 Scholarships)

The main objective of the scheme is to produce 300 PhD scholars in various fields of science and technology. HEC advertised the scheme five times to complete 300, but despite the provisional selection at optimum level, only 240 scholars could enrol in PhD programme. Later on, the scheme was closed as per P&D decision, Government of Pakistan; 180 scholars have completed PhD under the project, whereas, during the year 2011-12, eight scholars have completed PhD.

 Scholarship for PhD Studies in Social Sciences, Arts and Humanities for University Teachers

The scheme was approved by CDWP in June 2002 but was effectively implemented in April-2004. The primary objective of the project was to build a pool of highly qualified teachers and researchers trained at PhD level in the field of Social Sciences, Arts and Humanities including Management Sciences, Behavioral Sciences, Arts and Humanities and any other non S&T subject not covered under above mentioned fields. Total 101 scholars were enrolled in PhD programme. By the end of June 2012, 30 scholars have completed their doctorate and have joined their parent universities/institutions while 21 scholars have submitted their thesis. In addition, 89 Research Papers have been published in different HEC recognized journals.

Shining Indigenous Scholars

Dr. Ayesha Kausar completed her PhD from Quaid-i-Azam University, Islamabad in the field of Chemistry. She has published 15 international publications in ISI journals with 30 impact factor. Her research is related to "Synthesis of new Polymers" which explores the potential prospects of Novel Polymeric Nano materials. Dr. Kausar also got the opportunity to visit "Oxide Nanomaterial's for the Environment Laboratory" Korea.



Dr. Ghazala Yasmin recently completed her PhD in the field of Biology from Quaid-i-Azam University, Islamabad. She conducted Research on "Morphology, Foliar Anatomy". She published nine national and international papers during her PhD studies. She is working as Assistant Professor of Botany in Higher Education Department of the Punjab Government.



Dr. Muhammad Irfanullah Arfeen completed his PhD as HEC scholar under Indigenous 5000 PhD Fellowship Programme. Dr. Arfeen spent one year as Doctoral Research Visitor at the Manchester Institute of Innovation Research in the University of Manchester, United Kingdom, sponsored by HEC under IRSIP. His two research papers have been published in the HEC recognized journal. He has presented many research papers in different conferences. The scholar also got full sponsorship to present his paper in ICTD 2012, organized by Georgia Institute of Technology, USA. Recently, Dr. Arfeen attended a short course titled "Seminar on E-Governance for Developing countries" sponsored by Ministry of Commerce People Republic of China. Presently he is working as Assistant Professor and Deputy Director, Board of Advanced Studies and Research at the Virtual University of Pakistan, Department of Management Sciences, Islamabad Campus under IPFP programme initiated by HEC.

Dr. Rohama Gill successfully completed her PhD in the field of Chemistry from Quaid-i-Azam University, Islamabad. She has served as Lecturer in Chemistry in Punjab Education Department. She visited Institute Charles Sadron, Universite' de Strasbourg et Centre National de la Researche Scientifique, Strasbourg and arranged an exhibition there on 'Pakistan' in the university's expo-corner for 10 days. Presently she is working as an Assistant Professor at the Department of Environmental Sciences at the Fatima Jinnah Women University, Islamabad.



Dr. Tayyaba Asim successfully completed her PhD in the field of Physical Chemistry from Quaidi-Azam Univerity, Islamabad. She conducted her research on "Sorption Studies of Heavy & Toxic Elements" and has published nine papers and presented her work in a number of conferences. She is working as Lecturer in School of Sciences and Engineering, LUMS, Lahore.



Dr. Aamir Ali completed his PhD from National Institute of Biotechnology and Genetic Engineering. He was selected by World Health Organization for participation and presentation at Global Vaccine Research Forum at Bangkok, Thailand. He had completed part of his PhD research work for preparation of conjugate vaccine candidates against human typhoid at international vaccine institute (IVI), Seoul, South Korea sponsored by HEC under International Research Support Initiative Programme. He has published three research publications in



international journals. Currently he is working at Health Biotechnology Division, NIBGE, Faisalabad as Junior Scientist.

Dr. Abbas Khan completed his PhD from Quaid-i-Azam University, Islamabad in the field of Physical / Polymer Chemistry. The topic of his PhD Studies was "Associative and Surface Active properties of Block Copolymers and their Interactions with surfactants". Dr. Khan has published nine international papers in the peer reviewed journals from PhD research work.



Dr. Abdullah Ijaz Hussain completed his PhD studies from University of Agriculture, Faisalabad in the field of Analytical Chemistry. Dr Hussain completed his part of research work at school of Biomedical Sciences, University of Ulster, Coleaine, UK. Main area of his research work was Bio analytical Chemistry. He also focused his research on food and pharmaceutical chemistry. He has published papers from his thesis in the journals of international repute and also presented



his work at international and national conferences. He is now working as Assistant Professor at Government College University, Faisalabad.

Dr. Adil Masood Siddiqui completed his PhD studies from the University of Engineering and Technology, Lahore. His field of study is Electrical Engineering / Digital Image Processing. He has 13 publications in journals of international repute and conferences. His core expertise is in the field of image processing and his focused area of research is image registration. Dr. Siddiqui's areas of interest are non-rigid image registration, radial basis function, biometric



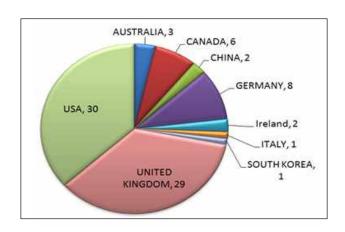
systems and image, video and signal processing. Dr. Siddiqui is serving as Assistant Professor at Military College of Signals (NUST) Rawalpindi.

Split PhD and Foreign Research Fellowships

To minimize the cost of high level training in foreign countries, many countries have successfully implemented Split PhD Programmes where a local or a foreign university awards degree to the scholar, who spends part of the study period in either country. By using this model, the Split PhD programme was designed. The scholars are thus being given opportunities to gain experience of research at international level through international research support initiative programme.

Development of High Level manpower S&T through Split PhD Programme

The Split PhD programme was approved by the Government of Pakistan for a period of five years to train 100 teachers/researchers in Science and Engineering. Initially, The Scientific & Technological Research Division, Ministry of Science & Technology, was designated as the implementing Agency. After the establishment of HEC, the execution and monitoring of the scheme was transferred to HEC in June 2003. Under this scheme, arrangement has been made for the scholars to undertake a part of their studies/research work in the Pakistani universities (1-2 years), while they will undertake some part of their studies/research work in a reputed foreign university (2-3 years). Scholars are required to compile their research work and submit PhD thesis either to the foreign university or to the Pakistani university. The scheme which was initially implemented in Jan 2002 has currently been extended till December 2012 to achieve the targets. In total 98 scholars were selected, out of which 78 are on board while 58 scholars after the completion of their PhD have resumed their duties in their parent organizations. The last inducted batch of the scholars will complete their studies by the end of 2013. During 2011-12, three scholars completed their PhD studies. It is worth mentioning here that so far the scholars studying under this programme have published more than 900 papers in journals of international recognition. The country wise enrolment through the programme is as under:



Significant Achievements

Best Paper Award

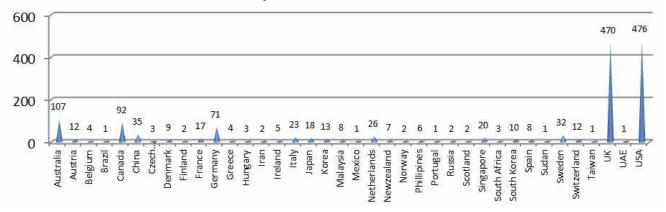
Mr. Usman Raza, who is currently pursuing HEC Split PhD Programme in Computer Science, has been awarded a prestigious Mark Weiser Award for the best paper at IEEE International Conference on Pervasive Computing and Communications (PerCom) 2012. This annual award is named after Dr. Mark D. Weiser, the father of Ubiquitous computing, and is recognized as one of the highest honours in this domain. The PerCom is consistently ranked as an A+ conference according to several ranking lists of Computer Science conferences. This year, it attracted 150 submissions out of which 16 papers were accepted for presentation as full papers. The award has been conferred for his collaborative work with colleagues from University of Trento and Bruno Kessler Foundation, Italy, where he is currently pursuing his PhD.

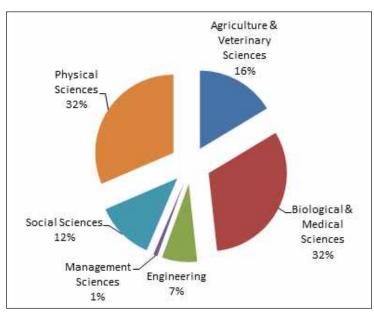
Their paper discusses the system lifetime of a technology that monitors and adjusts the light levels in operational road tunnels. The objective of such a system is to reduce the likelihood of road accidents and overall electricity consumption inside the tunnel. The Title of the paper is "What Does Model-Driven Data Acquisition Really Achieve in Wireless Sensor Networks?" This award is yet another feather in his cap after getting NMF Gold Medal for his MS (Computer Science) degree at Lahore University of Management Sciences which was sponsored by HEC as part of his Split PhD programme.

International Research Support Initiative Programme (IRSIP)

To complement indigenous PhD programmes, HEC offers a six-month research fellowship abroad to full time PhD students enrolled in Pakistan to enhance their research capabilities. It is of utmost importance that the doctoral studies carried out in Pakistan are of a good standard and at par with international reputed institutions. This is only possible if candidates are provided with adequate support in research projects. This scheme is helping to provide doctoral students international exposure to carry out research projects of high standard. The scheme is assisting ongoing Indigenous PhD programmes by providing a mechanism for PhD scholars to travel abroad and conduct research in advanced industrialized countries for a period of up to six months. This exposure is enhancing the quality of research that the scholars are conducting in Pakistan. It is also serving to develop linkages between Pakistani and foreign institutions. Total 1510 scholars have been provided this opportunity and 866 scholars have completed their research while 240 scholars are waiting for visa to proceed abroad. In 2011-12, 353 scholars were awarded scholarships while 154 proceeded abroad. In the year under report, 105 scholars returned after the successful completion of their studies.







Discipline wise distribution of awards

Achievements of IRSIP Scholars

PhD scholars sent abroad have shown good performance and published research papers in international and local journals. On an average, every scholar published at least one international research paper. Some of the awardees have published more than three papers during a short span of time.

Ms. Bushra Hafeez Kiani, a PhD Scholar at the Department of Biochemistry, Quaid-e-Azam University, Islamabad visited University of Warwick under IRSIP scholarship. The scholar worked at the department of Biochemistry. Her aim of research was to work on the enhancement of Antimalarial and Anti-Cancerous Drug. During her stay at Warwick she worked with Dr. Cameron. One of the important factors involved in her research programme abroad was to learn and master new techniques which may enable her to complete her PhD earlier than expected.

According to her supervisor "Ms. Bushra Hafeez Kiani has been working with me for six months and has made excellent use of her time and has learnt a number of new techniques that will assist her greatly in her career. Her project has been concerned with analyzing how the plant Artemisia can be made to produce more of a pharmaceutically important drug. This has involved the use of the latest molecular techniques and next generation sequencing to dissect the pathways involved in the biosynthesis of this drug. This work has altered how we think the plant produces this drug and is very novel".

Joint and Partial Support Scholarship Programmes

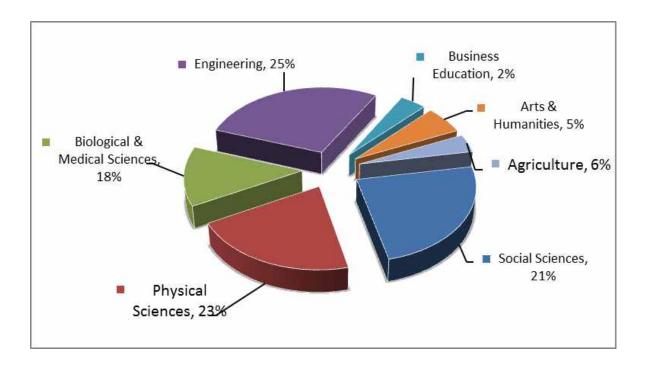
To provide opportunities to the talented youth for training and research at advanced laboratories in reputed universities abroad, HEC continued its efforts by managing jointly funded and partial support programmes for MBBS, MS and PhD level studies.

Scholarship Schemes	No. of Scholarships
HEC-USAID Fulbright Scholarship Support Programme	Masters 500 - 550
	PhD 240 - 265
1000 Cuban Scholarships for Studies in General Comprehensive Medicine	1000
(Equivalent to MBBS)—HEC	
Joint Scholarship Programme of HEC and AIT Thailand	Masters 20
	PhD 10
Partial Support for PhD Studies Abroad	Target depends on
	availability of funds

HEC-USAID Fulbright Scholarship Support Programme

The project envisages providing PhD, MPhil/Masters scholarships to Pakistani scholars at reputable US universities. A major part of the scholarship is funded by USAID, which is helping to train human resource in emerging fields. An MoU was signed between HEC and USAID in December 2005. As per agreement, the Government of Pakistan has to contribute US\$ 10 million each year for five years to cover the cost of Fulbright PhD scholarships.

The Scheme envisages 500-550 Master/MPhil level scholarships and 240-265 PhD level scholarships depending on tuition fee at US Universities. Scholarships would be awarded mainly in Engineering, Medicine, Science and Technology and Social Sciences focusing on the national need.



So far, 657 scholarships have been awarded for Master's programme and 263 scholarships have been awarded for PhD programme as per PC-1 plan. 553 scholars have completed their Masters and have returned while 104 are still abroad and are expected to return in 2012-13. 63 PhDs have returned after the completion of their doctorate and are currently serving in Pakistan. Remaining 200 will return during 2012 to 2015. In FY 2011-12, 31 PhD and 103 MS scholars returned after the completion of their studies.

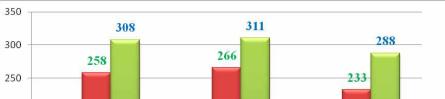
			HEC PhD		USAID N	lasters
S. No.	Financial Year	Selected	Returned	In	Returned	In
				Process		Process
1.	2005-6	13	-	-	13	-
2.	2006-7	33	-	-	74	-
3.	2007-8	70	-	-	79	-
4.	2008-9	61	2	-	110	-
5.	2009-10	56	10		92	10
6.	2010-11	30	20	-	82	94
7.	2011-12	-	31	-	103	
8.	2012-13	-	-	65	-	-
9.	2013-14	-	-	73	-	-
10.	2014-15	-	-	62	-	-
	Total	263	63	200	553	104

Keeping in view the success of the programme, HEC intends to extend the programme for another five years.

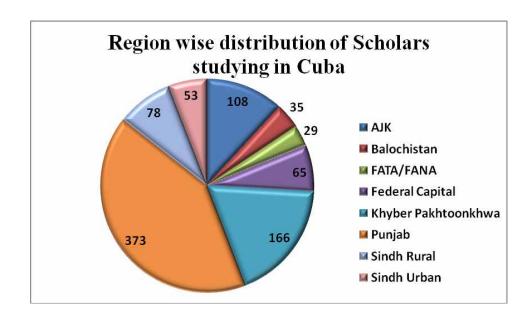
1000 Cuban Scholarships for Studies in General Comprehensive Medicine (Equivalent to MBBS)

Realizing the scarcity of qualified medical professionals in Pakistan after the 2005 earthquake, the Cuban government offered 1000 scholarships to Pakistani nationals for graduate studies in General Comprehensive Medicine (Equivalent to MBBS) in Cuba. The programme is mutually funded by the Government of Cuba and the Government of Pakistan. The Cuban Government is providing boarding lodging and tuitions fees of the students. Government of Pakistan is providing a monthly stipend of € 50 per month and two return air tickets during the complete course of studies. Currently 907 Pakistani students are pursuing their medical studies in Cuba on scholarship of the Government of Cuba. The 1st batch has completed four years of medical study along with a comprehensive course in Spanish and has started their final year of studies. They are expected to complete their degrees in 2013.

Detail of Scholars Studying in Cuban Universities



200 ■ Female ■ Male 150 ■ Total 100 55 50 45 50 0 University of Santa Clara University of University of Cienfugos Sanctispiritus



Performance of Pakistani Medical Students in Cuba

Pakistani medical students in Cuba have shown remarkable performance competing with the students of over 120 different countries. The performance is evident from the cumulative result of Pakistani students i.e. 99.67 percent followed by Ecuador 98.28 percent, Bolivia 97.69 percent, China 97.28 percent and Nicaragua 96.77 percent.

Pakistani students studying in Cuba are completely satisfied with the quality and standard of their medical education. The students would be required to appear in NEB Examination conducted by PM&DC after successful completion of their studies in Cuba. It is expected that after return these students would contribute efficiently to improve the health sector of Pakistan. The scholars would also be a source to further strengthen the bilateral relations between Pakistan and Cuba.

· Joint Scholarship Programme of HEC and AIT Thailand

The subject programme was approved at a revised capital cost of Rs.35.95 million to support the 16 Master level and nine PhD level scholars at the Asian Institute of Technology in Thailand. University faculty members and employees of Research Organizations in the field of Sciences, Engineering & Technology were the prospective candidates.

Under the programme, 25 scholarships were awarded to individuals from around the country to pursue Masters and PhD level studies. Out of the 25, 16 scholars have completed their Masters and nine have completed their PhD. During the year 2011-12, one scholar completed his PhD studies.

· Partial Support for PhD Studies Abroad

The main objective of the project is to provide financial support of up to US \$ 15,000/- to Pakistani scholars who are in the final stages of the completion of their PhD studies abroad and need partial support (e.g. tuition, thesis evaluation/submission fee, living expenditure etc.) without which their PhD Degree programme will remain incomplete. However, preference is being given to faculty members of public-sector universities/degree awarding institutions and employees of R&D organizations.

Cumulative Progress (September 2005 to June 2012)

Total number of scholarships awarded	245
Total number of scholars currently studying	113
Scholars returned after completing PhD	132
Scholars selected but withdrawn	02

Since faculty members of public sector universities/ R&D organization are given preference, most of the scholarships were awarded to these organizations i.e. 50.7 % to faculty members and 13.5% to R&D organizations. During 2011-12, 45 scholarships were awarded and 10 scholars returned after completion of their studies.

Need Based Scholarship Programmes

To facilitate the economically deprived scholars studying at home, HEC continued its efforts by managing foreign and locally funded "Need Based" scholarship programmes at graduate and undergraduate level. The programmes are focused to support those students who are good in academics but financial hindrances do not allow them pursue their higher studies.

Scholarship Schemes	No. of Scholarships
HEC-Japanese Needs Based Scholarship Programme	1500
HEC-USAID Merit and Needs Based Scholarship Programme	1807
Financial Support for Meritorious Needs Based Scholarship Programme	300
French Needs Based Scholarship Programme	90
HEC Needs Based Scholarship Programme	1000

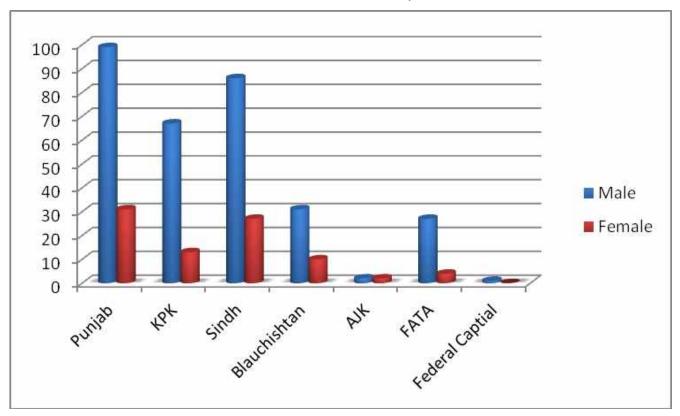
HEC-USAID Merit and Needs Based Scholarship Programme

HEC in collaboration with the United States Agency for International Development (USAID) initiated Need Based Scholarship programme to support financially disadvantaged students to study Agriculture and Business Administration disciplines at undergraduate and graduate levels. This programme is helping in poverty alleviation by providing opportunities to the students belonging to poor families to get the better jobs after the completion of their studies. So far, 1807 scholarships have been awarded in 11 Pakistani public and private sector universities and more than 1250 students have completed their degree programmes. The scholarship covers funds for tuition fee, transportation, books, lodging and incidental costs. Nine public sector and two private sector institutions are participating in the programme.

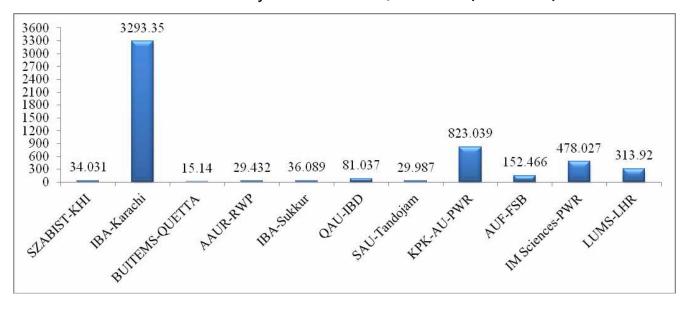
Programme/Discipline-wise Detail of Awarded Scholarships

Academic Programme	Agriculture	Business Administration	Total
Undergraduate	425	334	759
Graduate	553	495	1048
Total	978	829	1807

Province-wise Detail of Scholarships Awarded



Funds Generated by Partner Universities/ Institutions (Rs. in Million)



Achievements during 2011-12

While 400 scholarships were awarded to the needy students in the partner institutions during 2011-12, 25 per cent scholarships have been reserved for females especially who belong to rural areas in the revised Merit and Needs based Scholarship Programme.

Scholarships Awarded during July 2011-June 2012 (Gender/Domicile wise)							
Gender	Gender Punjab KPK Sindh Baluchistan AJK FATA Federal Capital						Federal Capital
Male	99	67	86	31	2	27	3
Female	31	13	27	10	2	4	0
Total	128	80	113	41	4	31	3

The Student Financial Aid and University Advancement Offices have been established in all partner institutions to strength the system of Financial Aid. The Project Management Unit also organized a training on "Resource Mobilization and Fundraising" in which 28 people from 11 partner universities participated. The key objective of the training was to make aware the participants about the resource mobilization and fundraising concepts. In order to open and expand the opportunities for its partner universities to excel in their fundraising endeavours, collaboration with Council for Advancement and Support of Education (CASE), USA has also been initiated.

Convocation Ceremony at IBA Karachi Convocation ceremony of the graduating students of IBA Karachi was convened at Institute of Business Administration (IBA), Karachi in December 2011. A total of 36 students funded through USAID Merit & Needs-based Scholarships Programme graduated. It is worth-mentioning that two of programme's beneficiaries secured gold medals while one student secured overall third position in MBA.

Convocation Ceremony at KPK AUP

Convocation ceremony of the graduating students was convened in February 2012 at Agriculture University, Peshawar. A total of 20 students funded through USAID Merit and Needs-based scholarships programme graduated. One of the Programme's beneficiaries got distinction by securing Gold Medals in BSc (Hons) and MSc (Hons) and also got a Presidential Award.

University Advancement Model Presented at 10th Vice Chancellors' Meeting

A comprehensive presentation of University Advancement programme under USAID-MNBSP was given by Dr. Naseer Ali Khan, Member Operations and Planning HEC in the 10th Vice Chancellor Committee Meeting in which UA/FA model of 11 partner universities and its fund raising achievements were highlighted. The Vice Chancellors showed keen interest in the fund raising activities of the 11 universities and urged to replicate the same model in all public and private sector universities.

Awareness Seminar on the University Advancement – the Concept, Theme and Practices

In order to understand the key concepts of the university advancement, importance of the programme for HEIs in Pakistan and international trends of university advancement, two-day awareness seminar was organized. Dr. Ishrat Hussain, Director IBA Karachi, Dr. Mary Bane Lackie, Teachers College, Columbia University and Mr. Zafar Siddiqui, Director University Advancement, IBA Karachi conducted sessions on various aspects of funds raising and alumni affairs. Success story of IBA Karachi as major fund raiser was also shared. More than 30 participants including Vice Chancellors attended the workshop and expressed their will to establish Financial Aid/University Advancement offices at their universities. A special awareness session for media representatives from various

TV channels and newspapers was also conducted on the second day with the objective to motivate the media to create societal awareness for involvement and investment in higher education activities.

HEC-Japanese Needs Based Scholarship Programme

HEC initiated Needs Based Scholarship Programme in collaboration with the Government of Japan to assist needy and financially disadvantaged students. The objective of this programme is to provide an opportunity to talented students who are financially disadvantaged and are incapable of meeting higher education costs at partner institutions/universities in the fields of IT/Telecom, Social and Basic Sciences, Agriculture, Engineering and Business Administration at graduate and undergraduate level. The programme began in 2005 with an initial target to award 1500 scholarships, which was achieved in 2011. The programme supported the students of 37 public and 13 private sector participating universities. Additional 174 scholarships have been awarded during 2011-12 to the students of 14 participating universities at graduate level.

Sindh Rural, 218 Federal, 15 Sindh Urban, 232 Punjab, 472 KPK, 70 FATA, FANA, War effected areas of KPK, 201 Baluchistan, 115 AJK, 33 114

Domicile-wise Distribution of Scholarships

Second phase of the programme has been approved by CDWP. Under the programme, 2500 full scholarships have to be awarded to the needy and deserving students of 50-55 public sector universities of Pakistan. In addition, 200 partial support scholarships will be offered. A training component to 1500 participants has also been added in the programme. Students Facilitation and Job Centres (SF-JC) in all participating universities will be financed to support the programme activities and to extend help to the parents, guardians, students and other stake holders. These offices will also support the students to pursue their careers and further studies. At the moment, the French authorities are reconsidering their offer to change the scope of the programme.

HEC-French Needs Based Scholarship Programme

HEC has initiated HEC-French Needs Based Scholarship Programme of 90 scholarships for the studious but needy students of six participating universities /institutions in the fields of Business Administration, Social Sciences and Architecture. For this purpose the agreement has been signed among honorable Chairman, HEC, Prof. Dr. Javed R. Laghari, his Excellency Mr. Philippe Thieboud, Ambassador of France to Pakistan and the Vice Chancellors of the participating universities/institutions.



Dr. Javaid R. Laghari, Chairman HEC and Mr. Philippe Thieboud signing the MoU

Meritorious Needy Scholarship Programme

Financial Support for Meritorious Needy Students programme was initiated by HEC in 2004-05 to support 300 students of 12 participating universities in the disciplines of Pharmacy, Bio Technology, Bio Medics, Bio Informatics, Bio Chemistry, Mycology and Plant pathology. All the scholarships have been awarded to the needy students; 268 scholars have graduated. During 2011-12, 14 scholars completed their studies.

HEC Needs Based Scholarship Programme

This programme was initiated in 2011-12 by HEC to support the financially disadvantaged students of all the public sector universities. The theme of the programme is to extend help to those students who lack the resources and may have to discontinue their education if not financed. Total 891 scholarships have been awarded during the year 2011-12 against the initial target of 1000 scholarships. During the next fiscal year, 2000 scholarships shall be awarded to the students of all the public sector universities in all the disciplines.

Foreign Funded Scholarships

HEC also plays its role as nominating agency for various foreign funded scholarship schemes. More than 35 different schemes are being processed by HEC each year including the world's most prestigious scholarships. These schemes are either fully or partially funded by the foreign donors/governments and HEC has no financial liability in this regard. Following schemes were processed by HEC during the year 2011-12.

- Commonwealth Scholarships for PhD, Split PhD and Post-Doctoral Studies.
- Islamic Development Bank (IDB) Scholarships for PhD Studies in Selected Fields.
- Brunei Darussalam Scholarships for Undergraduate and Postgraduate Studies.
- Lee Kuan Yew, National University of Singapore Fellowships for Master in Public Management (MPM).
- Lee Kuan Yew, National University of Singapore Fellowships for MPM and MPA.
- International University of Health and Welfare Scholarships, Japan.
- 2012 JIIA Fellowship Programme, Japan.
- Sri Lankan Government Scholarships for Undergraduate & Postgraduate Programmes.
- Turkish Government Scholarships for Pakistani Students.
- Italian Government Scholarships.
- Malaysian Government Scholarships.
- Video Contest South Korea "I LOVE KOREA".
- Asia Foreign Study Scholarship Programme, China.
- Netherlands Fellowship Programmes (NFP) for Short Courses, Masters and PhD studies.
- Education Scholarships to Pakistani Students in the Academic Year 2012-2013.
- ITU Telecom Worlds Young Innovators Competition.
- Austrian Development Agency Scholarships in Tourism and Hospitality Management.
- IBSEN Award for Project in Arts and Drama.
- Xian Jiaotong University, China Scholarships for Master Programmes.
- UNESCO/Poland Fellowship Programme 2012.
- University of Cyprus Scholarships for Postgraduate Programmes.
- Beijing University of Technology, China Scholarships.
- UNESCO/China Great Wall Co-sponsored Fellowship 2012-2013.
- SDPI-IDRC Scholarships for Master/PhD Programmes in South Asia.
- Developing Countries Scholarships by Indonesia.
- Kuwait Government Scholarships for Arabic Language.

- Mexican Government Scholarships.
- Morocco Government Scholarships.
- Ministry of Culture Scholarships, South Korea.

Many students were selected last year for different study programmes against foreign funded scholarships processed through HEC.

Apart from processing the foreign funded scholarships, HEC also facilitates the Pakistani students through sharing the information of world's open merit scholarships and other scholarships where Pakistani scholars are eligible to apply. Such information is placed on HEC webpage and the Project Management Unit helps the candidates for applying for these scholarships. The facilitation made by HEC in this regard has produced remarkable results for Pakistan. For the last five years, Pakistan is in the world's top 10 countries, which secured the most numbers of scholarships against Erasmus Mundus Merit Scholarship Schemes. The detail is as follow:

- Pakistani students secured 18 scholarships under the "Erasmus Mundus Merit Scholarship Scheme for Joint Doctorate Programme" during 2010-12. Out of these 10 scholarships were secured in the year 2011-12.
- During 2004-12, Pakistani scholars secured a total of 363 scholarships under the Erasmus Mundus Master Scholarship Scheme while 34 Pakistani candidates were selected in the year 2011-12.

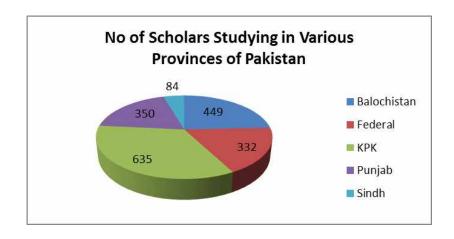
Opportunities for Balochistan and FATA Scholars

	Number of	
Scholarships	Scholarships	
Provision of Higher Education Opportunities for Students of	Undergraduate 1300	
Balochistan & FATA	Postgraduate 700	
PhD Scholarships for working Journalists FATA	10	

• Provision of Higher Education Opportunities for Students of Balochistan and FATA Since the inception of the programme in 2007, the project has achieved the target of awarding 2000 indigenous scholarships till January 2012. So far, 1300 undergraduate and 700 postgraduate scholarships have been awarded to the scholars of Balochistan and FATA at a ratio of 60:40, respectively. In addition, there are 10 PhD scholarships for journalists belonging to FATA.

The project has reserved seats in KPK medical colleges, engineering and public sector universities and students are placed on merit against these reserved seats. HEC has placed 70 scholars from Balochistan and 46 from FATA in MBBS and BDS in the medical colleges of KPK, while 120 scholars from Balochistan and 80 scholars from FATA have also been placed in the engineering universities. A special feature of the programme is the Foundation Course which is being arranged every year before the award of final scholarships with an objective to enhance knowledge and to provide practice opportunity to the potential candidates to pass required NTS test. Foundation courses have been arranged successfully at Peshawar and Quetta for 456 students from FATA and 684 students from Balochistan over a period of four years.

During 2011-12, 441 undergraduate and 386 postgraduate scholarships were awarded. This year 45 scholars completed their degrees, out of which five scholars got distinction in their studies. The scholars of Balochistan and FATA are studying in various disciplines in the public sector universities across Pakistan. Detail of the placements of scholars in different provinces is as under:



Shining Balochistan and FATA Scholars

Mr. Dilavar Khan of Quetta successfully completed MBA (Finance) from COMSATS Institute of Information Technology, Islamabad. He secured 3.82/4 CGPA and qualified for Gold Medal. "I thank Allah Almighty who gave me courage, strength and opportunity to study on scholarship at Masters Level as I belong to a middle class family who can barely afford education up to graduation level", the scholar said. Mr. Dilavar is the first Masters degree holder of his family and has joined a private Bank in Islamabad.



Mr. Nazir Ahmed Haleemi of district Mastung successfully completed MBA (Finance) from COMSATS Institute of Information Technology, Islamabad and secured 3.73/4 CGPA and qualified for Silver Medal.



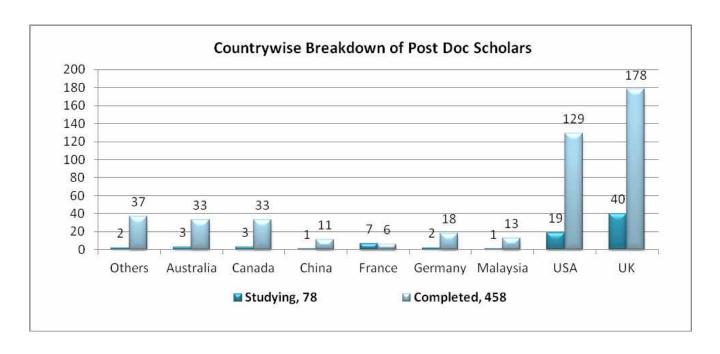
In addition, Ms. Kiran Karatia, MBA from University of Balochistan, Mr. Rafi Ullah BA (Hons), Political Science from GC University Lahore and Ms. Saher Murad, MPhil (GIS) from National University of Science & Technology Islamabad have also qualified for Gold Medals.

Post-Doctoral Fellowships

Programme	Number of Fellowships
Post-Doctoral Fellowship Programme	700

The Post-Doctoral Fellowship Programme provides an excellent opportunity to the faculty members of universities and researchers of R&D organizations to improve their research skills and to establish strong linkages with universities and Research Centres of the world. The programme aims to provide 700 fellowships for the best universities and state-of-the-art laboratories in technologically advanced countries. These fellowships are offered through national level competition while 70 percent slots are reserved for faculty members of public sector universities and institutes, 20 percent for private sector universities and 10 percent for public sector R&D organizations.

So far, 540 scholars proceeded to the host universities out of which 458 scholars have successfully completed their Post Doc studies and joined their parent organizations. During the year 2011-12, 82 scholars proceeded to the host universities and 53 completed their post doc studies and joined their parent organizations, while 78 scholars are pursuing their studies abroad.



New Research Opportunities in French Laboratories

HEC and the French Embassy in Pakistan have launched a joint programme for research mobility by signing an agreement. This fellowship programme is intended for Pakistani doctoral and postdoctoral scientists by offering them an opportunity to conduct research in French laboratories for six to nine months. HEC and French Embassy in Pakistan shall invite applications for Split PhD scholarships and Post-Doctoral Fellowships.

Distinctions Earned by Post-Doctoral Scholars

Dr. Muhammad Tayyeb Javed, an HEC Post-doctorate scholar, successfully completed his research from University of Leeds, UK in the field of Energy and Environmental Engineering under the supervision of Dr. Bill Nimmo. The topic of his Post Doctorate research was "Pulverized Coal Combustion under O₂ Enriched and Simulated Exhaust Gas Recirculation". The scholar also explored the co-combustion of waste plastic and tyre rubber powders. Dr. Tayyeb also presented his results at Low Carbon Combustion Centre, University of Sheffield,



UK. The scholar published his paper titled "Co-combustion of pulverized coal with waste plastic and tyre rubber powders in a journal named Energy and Fuels. This Post-Doctoral research may be helpful in implementation of clean coal combustion technologies in harnessing the huge coal reserves in Thar, Sindh. The 185 billion tons of coal could fulfil the energy demands of Pakistan for next couple of centuries.

Dr. Muhammad Naeem Mohsin completed his post-doctoral research from the University of Vienna, Austria under the supervision of well-known educationist, Dr. Ednan Aslan. The scholar published a book "Ecological Inventory Approach for Assessment and Training" discussing assessment tool and ecological inventories developed for Pakistani students with intellectual disability. The scholar has written and submitted seven research articles in international journals and presented his work in international conferences. In addition, two of his research abstracts have been accepted for oral presentation in Bosnia and Spain.



Dr. Azhar Mahmood proceeded to pursue Post-Doctoral Fellowship at the Department of Educational Organization and Leadership, University of Illinois at Urbana Champaign, USA under the supervision of Dr. Carolyn M Shields, a well-known educationist on the educational leadership research in the United States of America. During his fellowship, his book "Organizational Climate in Education" was published, discussing the organizational climate, principal's behaviour and job satisfaction of teachers in the school context. The research



can be helpful in improving the effectiveness of school programmes. Dr. Mehmood published 12 research papers on different aspects of education in journals of international repute of Azerbaijan, India, Turkey, Canada, and USA.

Dr Aneela Zameer Durrani completed her post-doctoral research in the field of Biological and Medical Sciences at the University of Minnesota, Saint Paul, USA. Her research focus was on the public health and role of ticks in emergence of diseases in humans and animals. She isolated new rickettsia specie in ticks from wolves that was 98% similar to all other rickettsia species on BLAST analysis. She identified several other pathogens that were potentially contributing to precipitous decline in Minnesota moose population. During her Post doctorate research Dr. Aneela published six research papers in different international journals of impact factor.



Dr Muhammad Ashraf was awarded Post-Doctoral Fellowship by HEC in collaboration with French Embassy for his research at BIOEMCO (Biogéochimie et écologie des milieux continentaux), Faculté de Sciences et Technologie, Université Paris-Est Creteil (UPEC), France. He completed his research project under the mentorship of Prof. Dr Noureddine Bousserrhine, a well known scientist in the field of microbial transformations, speciation and distribution of toxic heavy metals in terrestrial and the aquatic ecosystems. The French connection enabled the scientist to explore and understand different aspects of



bioremediation and contamination of brackish and polluted irrigation water resources of Bio-saline Research Station (BSRS) of the Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad, Pakistan.

Foreign Faculty Hiring Programmes

HEC, in its efforts to reduce the shortage of PhD faculty and to provide supervisors to indigenous PhD scholars in all disciplines, started faculty hiring programmes from abroad. The foreign faculty was also expected to serve in various public and private institutions as an agent of change for the creation of research environment and research leadership in cutting-edge technologies relevant to our society and socio-economic development.

Programmes
Foreign Faculty Hiring Programme (Long Term)
Short Term Foreign Faculty Hiring Programme (SFHP) Phase –III
Visiting Scholars Programme (VSP)

Foreign Faculty Hiring Programme (Long-Term)

The Foreign Faculty Hiring Programme (FFHP) has entered in its 9th year of commencement. A total of 594 foreign professors were hired under FFHP out of which 325 joined the programme and 107 are currently serving in various institutions/universities all over Pakistan. 218 foreign professors have returned to their parent organizations after the completion of their tenure. The accumulated man years will reach 1500 by the end of June, 2013. The accomplishment of Foreign Faculty Hiring programme comprises many success stories.

Significant Achievements of Foreign Faculty

Dr. Tahir Jamil of University of the Punjab, Lahore, hired from USA started working on the establishment of necessary infrastructure for polymer and material research laboratories and academic programmes at the already approved but inactive Department of Polymer Engineering and Technology, University of the Punjab, Lahore. Dr. Mujahid Kamran, Vice Chancellor of the University recently inaugurated the Department.

Through HEC's financial and University's logistical support, the state-of-the-art facility has been established in the Faculty. About 100 million rupees have been spent in gathering polymer synthesis, characterization, rheology and processing facilities under one roof. The Department is looking forward to advance various activities and projects like Society of Polymer and Material Engineering (SPME), Polymer Club, BSc Polymer Engineering, International Accreditation of laboratories, revenue generation, industrial research projects as well as research paper publications in the national and international high impact journals.

Dr. Muhammad Ashfaq, foreign professor, NIBGE, Faisalabad, initiated a project in April 2010 with a research grant from the HEC in an effort to build a reference DNA sequence library of economically important insect species of Pakistan. National Institute for Biotechnology and Genetic Engineering (NIBGE) has sequenced and documented 2500 insect species and has digitized the data of more than 20000 insect specimens through its DNA barcoding project in collaboration with the University of Guelph, Canada. Insect collections were made from different geographical areas of Pakistan, particularly the agricultural areas of Punjab and Sindh and the forest areas of Kashmir and Khyber Pakhtunkhaw with a focus on DNA based species identification and documentation of insect biodiversity of the country in general and economically important species in particular.

Through the collaboration between NIBGE and the Biodiversity Institute of Ontario (BIO), University of Guelph, sequencing work is supported and done at BIO. The Barcode of Life Data Systems (BOLD), a database run by BIO is providing specimen-sequence data management, analysis and storage facilities. Sequence data are submitted to NCBI after a certain time for the public access.

In January 2012, Dr. Ashfaq was awarded a grant of CAN\$ 50,000/ from the "International Barcode of Life Project (iBOL)" under the project "Engaging Developing Nations in the International Barcode of Life Project" which has further strengthened barcoding activities by NIBGE. A significant number of species from around the globe have already been sequenced and the sequence data is available to be used as reference. Next phase is the use and application of the generated DNA barcode data for various purposes such as for correct species identifications, biodiversity analysis, species distribution patterns and determination of disease-vector relationships etc.

Recently, Dr. Ashfaq also won a competitive grant of CAN\$ 28,500/ from iBOL for the "Application of DNA Barcode Data" for his research proposal "Identification and Distribution Analysis of Mosquito Species from

Pakistan". The grant will help to conduct studies on the distribution pattern of mosquito species in various geographical regions and answer questions on high prevalence of dengue disease in certain areas.

Dr. Rubya Mehdi joined Bahauddin Zakariya University, Multan and in a short period of time she published two journals on Law for the first time in the history of Gillani Law College of the University. Another publication of the Journal of Law and Social research, based on a special issue "Gender and Legal Profession" is in process and will be published by the end of 2012. Dr. Mehdi has also been successful in building a remarkable linkage with the University of Copenhagen and Bahauddin Zakariya University, Multan on different forums like, Crossfaculty collaboration between the departments for Cross Cultural and Regional Studies at the University of Copenhagen, Denmark and Bahauddin Zakariya University. She is also supervising the PhD Programme in Gillani Law College, BZU Multan.

Prof. Dr. Yaseen Iqbal joined the Department of Physics, University of Peshawar under Foreign Faculty Hiring Programme in November 2005. He has instilled research culture in Applied Sciences at the University. The number of PhD enrolment has increased significantly since the joining of Dr. Yaseen who has supervised more than eight PhD students under his able guidance.

He has also been engaged in development of Materials Connection Centre under Pak-US S&T Cooperative Programme where the total funds amount to US \$ 445000. He has also been engaged in research effects of various substitutions on the microstructure and properties of SrTiO3–Sr2Nb2O7 based electro-ceramics for microwave application. Dr. Yaseen has been awarded various research grants such as National Research Grant (NRPU) of worth Rs. 3.58 million and grant of US\$ 0.78 million for the Establishment of Materials Connection Centre. He has also facilitated MOU with Industrial Estate and Director S&T Directorate NWFP to work on a pilot project to establish a research based industrial unit at the Industrial Estate and a testing Lab at the University of Peshawar. A dead industry is being leased and revived for this purpose under U-I-Interaction Programme of HEC. Additionally, he has introduced new laboratory courses in Ceramics. Several new projects e.g., preparation of Electro-ceramics Glasses, and Phase, micro-structural analysis & properties of dental materials are also under-progress.

Abdus Salam School of Mathematical Sciences (ASSMS)

Twenty eight foreign professors are working at Abdus Salam School of Mathematical Sciences GCU Lahore. They are being engaged under the programme from various European countries since 2004. Abdus Salam School of Mathematical Sciences (ASSMS) for advanced studies and research has been recognized by famous world organizations of mathematical studies. Educational organizations like UNESSCO, European Mathematical Society, Italy's International Centre for Theoretical Physics France's Centre International de Mathematiques et Appliquees have given international status to the school.

UNESCO and International Centre for Theoretical Physics in collaboration with the Centre International de Mathematique selected Abdus Salam School of Mathematical Sciences for advanced studies from all over the world to fund advanced workshops this year. The international recognition of school was the result of its strong faculty and the PhD programme started in 2003. First doctorate degree was awarded in 2007. Since then, the School has awarded 63 PhD degrees to young Pakistani scientists.

Overall Achievements

The overall achievements of the foreign professors hired under FFHP can be appraised against the job assigned to them including teaching, curriculum revision, students' supervision and research activities. Two of the major

quantifiable tasks assigned to the foreign professors are number of students supervised and number of research papers published. The following table provides an overview of the year 2011-2012 as well as the cumulative total since the inception of the programme.

Students Supervised by Foreign Professors					
Level	Students Supervised (2011-2012)	Total S	tal Students Supervised		
MS	90	531			
MPhil	72	302			
PhD	50	417			
Research Papers Published by Foreign Professors					
2011-2012 Total					
Papers Presented in Conferences/Seminars			100	1300	
Research Papers published in International Journals			310	2520	

Short Term Foreign Faculty Hiring Programme (SFHP)

Short Term Foreign Faculty Hiring Programme was launched to meet the scarcity of qualified professionals in different fields of education. Foreign nationals as well as expatriate Pakistani scientists and engineers in academia and professional organizations have been invited to come to Pakistan on short-term assignments (at least for one semester) at public sector universities and degree awarding institutions. This interaction between Pakistani universities and their foreign counterparts is providing avenues for future research collaboration and faculty exchanges. Hiring is made in all disciplines under the SFHP.

During 2011-12 around 35 foreign professors visited the public sectors universities including Bahaudin Zakariya University, Islamia University Bahawalpur, COMSATS Institute of Information Technology, University of Sargodha, University of Karachi, Govt. College University Lahore, National University of Science and Technology, Quaid-i-Azam University, International Islamic University, Federal Urdu University, Sarhad University of Science and Technology and Hazara University.

Contribution of the Selected Experts

Prof. Dr. Syed Ismat Shah

Prof Dr. Syed Ismat Shah from University of Delaware, USA visited COMSATS Institute of Information Technology during February to May, 2012. He helped to start an interdisciplinary multi-PI collaborative project that is focused on developing materials physics and chemistry based strategies for bacteria and virus removal from water. A technologically mature process, electro spinning, is being used to obtain filters that can discriminate nanoscale species in the water. The project is driven by the need for an affordable water filter that can filter out primarily bacteria and viruses for water purification. This is an area of research that is particularly important for Pakistan and requires a solution that is feasible in Pakistan, both technically and economically. These filters are commercially available.

Dr. Aftab Igbal

Dr. Aftab Iqbal, Dip. B. Tech. (Chicago, USA) Certified Food Safety Technologist, Certified HACCP Specialist (BCIT-BC. Canada), Joined Department of Biochemistry Quaid-i-Azam University Islamabad, during February to June, 2012.

During this period yeast strains growth conditions were standardized for bio ethanol production, a course was taught to MPhil /PhD students, and a lecture series/workshop was conducted for a certificate programme on food safety. Moreover, he participated in three-day international conference on energy held at PMAS Arid Agriculture University as a resource person and a key note speaker, supervised/reviewed MPhil research students and a project was developed on 'Industrial perspective of bio ethanol production and its role in solving energy problem of Pakistan.'

Visiting Scholars Programme (VSP)

This programme was launched to provide an opportunity for sharing of expertise and knowledge by the public sector universities/ Degree Awarding Institutes with learned expatriates or foreign scholars from a reputed universities/ research organization abroad. The visiting scholars are being engaged in the follow way:

- 1. Graduate teaching and collaborative research
- 2. Conducting workshops, seminars and other thematic informal teaching
- 3. Supervising and advising on specific research techniques to PhD students and /or faculty
- 4. To assist in establishing laboratories in new and emerging disciplines
- 5. Short courses in such disciplines where local expertise is not available

During 2011-12 under the programme 25 foreign professors visited the public sectors universities of Pakistan. Activities of some of the selected experts are as follows:

Prof. Marc Diener and Prof. Francine Diener, the French mathematicians, visited CIIT, Islamabad in April/May 2012 for two weeks. They have a rich experience of teaching and research in the applications of mathematics in different fields including economics, finance, and biology. They delivered a series of lectures on mathematical finance and applications of mathematics in biological sciences. Their lectures were full of interest with effective pedagogical skills in teaching mathematics to students for whom mathematics was not the principal discipline. They considered understanding mathematical theories, such as optimization, differential equations, optimal control and stochastic processes, a valuable asset.

Dr. Pavel Paces, Ph.D. Czech Technical University in Prague, Czech Republic, visited the Institute of Space Technology, Islamabad in May 2012 for two weeks. During his visit he delivered advanced lectures on Spacecraft Data Processing and Control Course Earth environment (mag. and grav. field) and its usage for a spacecraft, space environment and electronics.

HEC Distinguished National Professors Programme

HEC launched the Distinguished National Professors programme in 2003 with the aim to recognize the dedicated services of the eminent Professors/Scientists in their specialized fields. The positions of HEC/Pakistan Distinguished National professors were created to get benefit of their experiences. Forty one Distinguished National Professors have been selected by the HEC since the commencement of the programme.

These Distinguished National Professors are hired for two years. These Professors deliver academic/research lectures in different universities of Pakistan, supervise/co-supervise MPhil/PhD students, conduct workshops/training courses at national level for young faculty members on modern aspects of their respective fields. They are also required to write articles in newspapers and monograph for graduate level courses. DNPs also deliver lectures at other forums e.g. HEC and COMSTECH and also contribute the electronic media to

highlight the importance of higher education in national development. HEC also receives biyearly progress report of their research activities and contributions for higher education sector. A brief profile of Distinguished National Professors selected in 2012 is given below:

Dr. SAQIB ALI

Born in Mardan, KPK on February 6, 1954 Professor, Department of Chemistry Quaid-e-Azam University, Email: drsa54@yahoo.com, Sagibali@qau.edu.pk

EDUCATION:

- PhD in Chemistry from N. Copernicus University, Torun, Poland (1984).
- MSc in Inorganic/Analytical Chemistry from Peshawar University, Peshawar (1977)
- BSc from Peshawar University, Peshawar (1975).

AWARDS:

- Awarded one year Marie Curie Postdoctoral Fellowship of CEC (April 1994-March 1995)
- Awarded Georg Foerster Research Fellowship of the Alexander von Humboldt Foundation, Germany (September 1998-August 1999; August 2001-July 2002).
- "President's Award of Pride of Performance" on the occasion of Independence Day, 14th August, 2008.
- "Distinguished National Professor" awarded by HEC (April 2012).

FELLOWSHIPS:

- Fellow of The Chemical Society of Pakistan.
- Fellow of Pakistan Academy of Sciences.

POSITIONS HELD:

- Lecturer, Department of Chemistry, University of Peshawar (1979 to 1980)
- Lecturer, Department of Chemistry, University of Peshawar. 07-02-1985 to 15-04-1986
- Lecturer, Department of Chemistry, Quaid-i-Azam University, Islamabad. (1986 to 1988)
- Assistant Professor, Department of Chemistry, Quaid-i-Azam University, Islamabad (1988 to 1999)
- Associate Professor, Department of Chemistry, Quaid-i-Azam University, Islamabad (1999 to 2001)
- Professor, Department of Chemistry, Quaid-i-Azam University, Islamabad. (2001 to-date)

RESEARCH INTEREST:

Research interest includes synthesis and characterization of organometallic complexes, particularly organotin(IV) carboxylates and coordination complexes of oxygen, sulfur and nitrogen donor ligands of biological importance with various transition metal ions. These complexes are characterized using various analytical techniques while their applications are studied in biological and industrial fields. Also some work on purification and functionalization of carbon nanotubes (MWCNTs and SWCNTs) as well as synthesis and characterization of biodiesel from vegetable oils and the application of metal complexes as catalysts for the synthesis of biodiesel.



DR. SALEEM ASGHAR

Born in Gujrat, Pakistan on July 2, 1947 Professor, Department of Mathematics, COMSATS Institute of Information Technology, Islamabad E-mil: sasghar@comstas.edu.pk



EDUCATION:

- M.Sc. (1967-1969) Mathematics, Punjab University, Lahore (Pakistan)
- M.Phil. (1969-1970) Mathematics, Quaid-i-Azam University, Islamabad (Pakistan)
- Ph.D. (1971-1975) Mathematics, Quaid-i-Azam University, Islamabad (Pakistan)

AWARDS:

- First prize by the Government of Pakistan for best published research work in Mathematics in 1987
- First prize by Government of Pakistan, for the best published research work in Mathematics in 1994
- Gold Medal awarded by Pakistan Academy of Sciences in 1993
- Fellow Pakistan Academy of Sciences
- Tamgha-i-Imtiaz awarded in 2000
- Chairman peer review committee for Mathematics in Pakistan (Pakistan Council for Science and Technology).
- Recipient of Best teacher Award from Higher Education Commission
- Member of Task force for Mathematics
- 2nd topmost Mathematician in Pakistan according to the ranking of PCST
- Thematic Member of Mathematics at ISESCO
- Sitara-i-Imtiaz awarded in 2008
- HEC Distinguished National Professor (2012)

FELLOWSHIPS:

- Fulbright award: Post-Doctoral fellow at the University of Rhode Island Kingston USA under Fulbright Scheme, 1991
- Visiting Mathematician: ICTP, Trieste Italy 1986
- Associate member of ICTP, Trieste Italy from 1987-1996
- DAAD Fellow: University of Stuttgart, Germany 1995
- Visiting Scholar at the University of Illinois at Urbana-Champaign (Summer 1996) USA
- Visiting Scholar at the University of Illinois at Urbana-Champaign (Jan.-Feb. 1997) USA

POSITIONS HELD:

- Professor of Mathematics, Quaid-i-Azam University, Islamabad, January 1993 to August 2002
- Chairman of Department of Mathematics, Quaid-i-Azam University, Islamabad, September 1995 to February 2002
- Professor of Mathematics at COMSATS Institute of Information Technology September 2002 to July 2007.
- Dean of Sciences, COMSATS Institute of Information Technology, Islamabad
- Dean Graduate Studies and Research at COMSATS Islamabad, July 2009 to February 2011
- Head Department of Mathematics, COMSATS Institute of Information Technology, Islamabad from July 2008 to June 2009
- Professor (Eminent) COMSATS Institute of Information Technology, Islamabad July 2007 to-date
- President All Pakistan Mathematical Association

DR. MUHAMMAD SARWAR

Born in Jhang on February 12, 1956 Dean, Faculty of Animal Husbandry University of Agriculture, Faisalabad E-mail: drms01@gmail.com



EDUCATION:

- PhD in Dairy Science from The Ohio State University, Columbus, Ohio, USA (1992)
- MSc (Hons.) Animal Nutrition from University of Agriculture, Faisalabad (1984)
- Bsc (Hons.) Animal Husbandry from University of Agriculture, Faisalabad (1980)

AWARDS:

- Distinguished National Professor by Higher Education Commission, Islamabad (2012)
- Tamgha-i-Imtiaz by Government of Pakistan (2007)
- Best Scientist in Agriculture and awarded Gold Medal by Pakistan Academy of Sciences, Islamabad (2006)
- Best University Teacher Award by Higher Education Commission, Islamabad (2004)
- Star Laureate Award (2001) was awarded by South Asia Publications, Karachi (2001)

INTERNATIONAL HONOURS:

- Nominated Honorary Scientist, for three years from July 1, 2005 to June 30, 2008, by the Rural Development Administration (RDA), Korea: A Central Government Organization, South, Korea
- Biographic Sketch Committee member representing Pakistan in Asian-Australasian Journal of Animal Sciences (South Korea)
- Member Editorial Board, Asian Australasian Journal of Animal Science, South Korea
- Awarded Research Productivity Allowance for 2010-2011, 2007-2008, 2006-2007, 2005-2006, 2004-2005 and 2003-2004 by Pakistan Council for Science and Technology, Islamabad
- Better incentive allowance was awarded by Higher Education Commission(2007)
- Awarded USAID, Kennedy Fellowships at Dairy Science Department, Ohio State University, USA (1990)

POSITIONS HELD:

- Dean, Faculty of Animal Husbandry, University of Agriculture, Faisalabad (January 15, 2011to todate)
- Director, Institute of Animal Nutrition and feed Technology, University of Agriculture, Faisalabad (March 19, 2004 to January 14, 2011)
- Chairman, Sports board, University of Agriculture, Faisalabad (2004-2008)
- Project Officer Cattle Feed Mill (2001-2003)
- Team leader, PARL model project, Islamabad(2001-2003)

Scholarship Regulations and Fresh PhD Appointment

National Scholarship Management Committee (NSMC)

The National Scholarship Management Committee (NSMC) was approved by the ECNEC in 2003 to deal with policy matters under all scholarship schemes of HEC. The Committee includes members nominated by each province, federal ministries and others academician.

The NSMC including its Sub-Committee met three times and resolved 41 agenda items during the year. Accordingly, policy decisions were accorded for the award of HEC scholarships, overseas and indigenous, to eligible candidates by observing Province wise Federal Government Quota Policy. The cases of defaulters in the light of approved SOPs were also decided.

Interim Placement of Fresh PhDs Programme (IPFP)

IPFP provides all Pakistani fresh PhD graduates an opportunity to join as Assistant Professor in public and private universities for a maximum of one year period similar to Tenure Track System (TTS). During the IPFP contract period, the scholars can apply for the posts advertised by the universities on TTS. Under IPFP total 898 scholars have been placed at 87 public and private sector universities across the country while during 2011-12, 483 scholars were placed in various institutions.

The faculty requirement of the host institutions and the priority of the scholars are taken into account while placing the scholars by HEC. It is worth-mentioning that the Programme is attracting non HEC scholars too. Out of 898, 334 non HEC scholars have benefited so far from the Programme. The detail of the scholars placed till June 2012 is as under:

Detail of Scholars Placed Under IPFP					
	HEC Scholars Non-HEC Scholars				
Foreign	285	134			
Indigenous	279	200			
Total	564	334			
Grand Total	898				

HEC is in a continuous process to take on board more universities under the programme. New universities included this year for placement are; Abasyn University, Peshawar, Bahria University, Islamabad, Forman Christian College University, Lahore, GIFT University, Gujranwala, Institute of Southern Punjab, Multan, Minhaj University, Lahore, PAF-Karachi Institute of Economics and Technology, Karachi, Pakistan Institute of Development Economics, Islamabad, Pakistan Institute of Engineering and Applied Sciences, Islamabad, Preston University, Islamabad, Sarhad University of Information Technology, Peshawar, Shaheed Benazir Bhutto Women University, Peshawar, University of Azad Jammu and Kashmir, Muzaffarabad, University of Lahore, Lahore, University of Poonch, Rawalakot, and Virtual University, Lahore. The detail of university wise placements till June 2012 is as under:

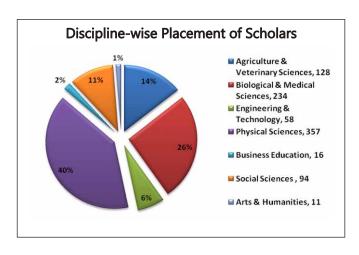
S. No.	University-wise Placements till June 2012 University	Scholars
1	•	Placed
1.	Abasyn University, Peshawar	2
2.	Abdul Wali Khan University, Mardan	41
3.	Air University, Islamabad	7
4.	Allama Iqbal Open University, Islamabad	6
5.	Bahauddin Zakariya University, Multan	25
6.	Balochistan University of Information Technology, Engineering and Management Sciences, Quetta	3
7.	Beaconhouse National University, Lahore	1
8.	Centre for Applied Molecular Biology, Lahore	9
9.	Centre of Excellence in Marine Biology, Karachi	5
10.	Centre of Excellence in Solid State Physics, Lahore	1
11.	College of Business Management, Karachi	1
12.	COMSATS Institute of Information Technology, Islamabad	31
13.	Dawood College of Engineering and Technology, Karachi	2
14.	Dow University of Health Sciences, Karachi	8
15.	Education and Literacy Department	1
16.	Fatima Jinnah Women University, Rawalpindi	6
17.	Federal Urdu University of Arts Science and Technology, Karachi	21
18.	Forman Christian College University, Lahore	2
19.	Ghulam Ishaq Khan Institute, Swabi	3
20.	GIFT University, Gujranwala	1
21.	Gomal University, Dera Ismail Khan	3
22.	Govt. College University, Faisalabad	98
23.	Govt. College University, Lahore	19
24.	Hazara University, Mansehra	28
25.	HEJ Research Institute of Chemistry, Karachi	10
26.	Institute of Southern Punjab, Multan	1
27.	Institute of Space Technology, Islamabad	7
28.	International Islamic University, Islamabad	35
29.	Iqra University, Gulshan Campus, Karachi	2
30.	Islamia College University, Peshawar	19
31.	Jinnah University for Women, Karachi	1
32.	Karakorum International University, Gilgit	9
33.	Khyber Medical University, Peshawar	5
34.	King Edward Medical University, Lahore	3
35.	Kinnaird College for Women, Lahore	1
36.	Kohat University of Science and Technology, Kohat	4
37.	KPK Agricultural University, Peshawar	14

C No	University-wise Placements till June 2012 Scholars				
S. No.	University	Placed			
38.	KPK University of Engineering and Technology, Peshawar	3			
39.	Lahore College for Women University, Lahore	15			
40.	Lahore University of Management Sciences, Lahore	12			
41.	Lasbela University of Agriculture, Water and Marine Sciences, Lasbela	1			
42.	Liaquat University of Medical and Health Sciences, Jamshoro	2			
43.	Mehran University of Engineering and Technology, Jamshoro	1			
44.	Minhaj University, Lahore	2			
45.	Mir Pur University of Science and Technology, Mir pur AJK	4			
46.	Muhammad Ali Jinnah University, Islamabad	2			
47.	National Centre of Excellence in Physical Chemistry, Peshawar	2			
48.	National Centre for Physics, Islamabad	6			
49.	National Centre of Excellence in Molecular Biology, Lahore	3			
50.	National Defence University, Islamabad	3			
51.	National Institute of Biotechnology and Genetic Engineering, Faisalabad	7			
52.	National Textile University, Faisalabad	9			
53.	National University of Science and Technology, Islamabad	33			
54.	NED University of Engineering and Technology, Karachi	5			
55.	PAF, Karachi Institute of Economics and Technology, Karachi	2			
56.	Pakistan Institute of Development Economics, Islamabad	2			
57.	PMAS Arid Agriculture University, Rawalpindi	23			
58.	Preston University, Islamabad	2			
59.	Quaid-e-Awam University of Engineering Science and Technology	1			
60.	Quaid-i-Azam University, Islamabad	61			
61.	Riphah International University, Rawalpindi	1			
62.	Sarhad University of Information Technology, Peshawar	1			
63.	Shah Abdul Latif University, Khairpur	2			
64.	Shaheed Benazir Bhutto Women University, Peshawar	1			
65.	Sindh Agricultural University, Tando Jam	2			
66.	The Islamia University of Bahawalpur, Bahawalpur	22			
67.	University of Agriculture, Faisalabad	19			
68.	University of Azad Jammu and Kashmir, Muzaffarabad	6			
69.	University of Balochistan, Quetta	1			
70.	University of Education, Lahore	9			
71.	University of Engineering and Technology, Lahore	7			
72.	University of Engineering and Technology, Taxila	3			
73.	University of Gujrat, Gujrat	21			
74.	University of Health Sciences, Lahore	12			
75.	University of Karachi, Karachi	12			

	University-wise Placements till June 2012		
S. No.	University	Scholars Placed	
76.	University of Lahore, Lahore	4	
77.	University of Malakand, Dir	10	
78.	University of Peshawar, Peshawar	19	
79.	University of Poonch, Rawalakot	3	
80.	University of Sargodha, Sargodha	24	
81.	University of Science and Technology, Bannu	11	
82.	University of Sindh, Jamshoro	5	
83.	University of Swat, Swat	3	
84.	University of the Punjab, Lahore	43	
85.	University of Veterinary and Animal Sciences, Lahore	12	
86.	University of Wah, Wah Cantt.	8	
87.	Zia Uddin Medical University, Karachi	1	
	Total till June 2012	898	

	Province-wise Placements under IPFP				
S. No.	Province	Universities on Board	Scholar Placed		
1.	Punjab	32	423		
2.	KPK	17	169		
3.	Sindh	18	83		
4.	Balochistan	3	5		
5.	AJK/Northern Areas	4	22		
6.	Federal	13	196		
Total		87	898		

The scholars of all academic disciplines can avail the opportunity under IPFP to join as Assistant Professor. Some of the important fields of the placed scholars are; Intelligent Systems and Robotics, Nanotechnology, Materials Analysis, Solid State Physics, Rural Development, Urban Planning, Water Resource Engineering, Agricultural Economics and Management, Medicinal Plant Study, Fungal Genetics, Population Biology and Evolution, Fish Genetics and Breeding, Epigenetics, Psychometrics, Toxicology, Ophthalmology, Floriculture, Environmental Science, Anthropology, Gender Issues and International Relations.



In addition to the placements, IPFP awardees are also provided with a PKR 0.5 million startup research grant to initiate a feasible research project at his/her host university. So far more than 400 scholars have been awarded the startup research grants since the inception of the programme in 2010.

Approved PhD Supervisors

HEC has been in a continuous process to approve and register the supervisors to guide and supervise PhD candidates at local universities. It is mandatory for HEC scholarship holders to register as approved supervisors after the completion of their PhD. Only HEC Approved PhD Supervisors are eligible to supervise HEC scholarship holders under the Indigenous PhD scholarship programme. Total 1300 scientists were registered as HEC Approved Supervisors this year. 2000 Supervisors of various disciplines also updated their online profiles during the year.

D	scipilne-wise Detail of	HEC Approve	a Supervisors	registerea	auring 2011-12	_

S. No.	Disciplines	Applications received	Cases Approved	Not Recommended Case
1.	Agricultural Sciences	200	175	23
2.	Biological Sciences	295	251	44
3.	Engineering and Technology	356	300	59
4.	Physical Sciences	328	301	27
5.	Social Sciences, Arts and Humanities, Business Education	394	230	161
6.	Social Sciences (Languages)	61	43	19
Total		1634	1300	333

HEC Registered Supervisor

A large number of the PhD faculty has remained outside the HEC Approved Supervisor network though they may be capable of supervising PhD students. To overcome this gap, HEC has initiated 'HEC Registered Supervisor' programme to bring every faculty member holding PhD degree in the network on a mandatory basis. Following the initial first registration by May 31, 2012, the HEC Registered Supervisors shall be required to meet the minimum research requirement in terms of publications on an annual basis to be eligible to continue supervising PhD students beyond May 31, 2013. HEC registered supervisors is a pre-step to HEC approved supervisors. HEC Registered Supervisor can supervise university scholars but not the HEC scholarship holders unless they complete the requirement of HEC approved supervisors. By June 2012, 243 supervisors became HEC Registered Supervisors.

Closure of the Projects

HEC is putting all of its efforts and utilizing available resources for the closure of projects in the stipulated time, however, financial constraints sometime hinder achieve the desired goals. The financial uncertainty affected the cycle of selection process and the scholars could not proceed abroad to join their studies in time. HEC faced difficulties to support the scholars abroad and at home and to meet the targets of new intake due to the non-availability of funds in the last quarter of the year 2011-12. After successful completion of the projects, PC-V of the following schemes were submitted during the 2011-12:

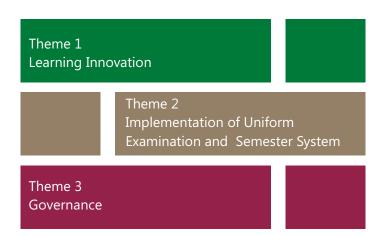
Details of PC-IV and PC-V Submitted				
S. No.	Name of Scheme	PC-IV	PC-V	
1.	PhD Scholarships for Engineering Sciences, China	30.06.2009	4.07.2011	
2.	PhD Scholarships for Basic Sciences, China	08.12.2010	4.07.2011	

Professional Development of Faculty

Quality of education is highly dependent on the quality of teachers. Therefore HEC places special emphasis on the continuous professional development of the higher education teaching faculty for achieving excellence in learning and research. Professionally trained and qualified teaching faculty in higher education institutions can first create a learner oriented; knowledge transferring culture in the class room with a definite mechanism based on learning outcomes and then trickle down quality learning and research to the students.

Similarly, the management staff ranging from vice chancellors to hostel wardens of HEIs across Pakistan being the backbone of the system need capacity building to run the system based on quality parameters. Therefore HEC has developed strategic customized certificate programmes on good governance and principles of management related to HE systems which provide holistic governance tools and mechanisms, designed and conducted for the university management for becoming a qualitative source of support to the academia complying with global standards and quality norms. Trainings for their professional empowerment serve to bridge the gap between academia and management for effective and sustainable governance. In this regard HEC's initiatives for academics and management are revolving around three main themes to provide opportunities to explore the challenges associated with job and equip themselves in the latest professional tools/techniques and skills to serve their respective HEIs with the best of their qualitative abilities.

- 1. Learning Innovation
- 2. Implementation of Uniform Examination/Semester System
- 3. Governance



1. Professional Training Programmes for HEIs Teachers

Beneficiaries: Permanent faculty of public sector or HEC funded private sector HEI up to Professor level.

2. Professional Training Programme for HEIs Management

Beneficiaries: Vice Chancellors, Rectors, Directors, Principals, Pro-VCs, Pro-Rectors, Vice Principals, Registrars, HoDs, Deans, IT Managers, Policy Makers, Hostel Wardens etc. of public pector HEI or HEC funded private sector HEI. In the absence of a pre-service training mechanism, HEC's in-service certified programmes by Learning Innovation Division (LID) and its two development projects National Academy of Higher Education (NAHE) and English Language Teaching Reforms (ELTR) are providing ample opportunity to the HE community to be professionally skilled.



Learning Innovation

- Master Trainers-Faculty Professional Development Programme (LI)
- Indigenous ELT Scholarships (ELTR)
- Professional Competency Enhancement Programme for Teachers (NAHE)
- ELT Continuous Professional Development Courses (ELTR)
- International Resource Person's Trainings for Local ELT Faculty (ELTR)
- AIT, Thailand Advanced Training for FPDP Alumni (LI)
- Incorporating Technology in Education (NAHE)
- Continuous Professional Development Seminars/Workshops (LI)

Modern University Governance

• Open and Customized Workshops (LI)

Implementation of Uniform Semester Examination System

• Orientation/ Master Trainers Workshops (LI)

A Snapshot of Learning Innovation during 2011-12

- Like previous years the year 2011-12 also remained active in serving its community. During the year 2011-2012, 2895 teaching faculty from public and HEC funded private sector HEIs across Pakistan were certified through different programmes courses, seminars and workshops in generic and specified areas offered by LI, NAHE and ELTR projects. Out of the total figure 13,552.
- Three batches of MT-FPDP (Master Trainers-Faculty Professional Development Programme) were organized in which 83 Faculty Members were certified as Master Trainers taking the overall total to 524 Master Trainers since 2003.
- Advanced Training for MT-FPDP Alumni at AIT Extension, Bangkok under the title of "Ensuring Training Effectiveness" played an important role in motivating the Master Trainers for cascading activities. Out of 524 Master Trainers, 73 were sent to Asian Institute of Technology, Thailand on the basis of their cascading performance from 2011 however 25 Master Trainers were sent in this financial year.
- Uptil now 6371 university and college teaching faculty have benefitted under Continuous Professional Development (CPD) Programme since 2003 however during the reporting FY 2011-12, 1034 attended 28 CPD workshops and seminars.
- Similarly 207 examination staff members were trained in seven MT workshops in the current reporting year. However so far over all 29 workshops and seminars have been held training 1056 Examination Staff of HEIs under the orientation and Awareness Programme on HEIs Semester and Examination System.
- Under NAHE Project's PCEPT one month course at the door steps of the universities in the year 2011-12, 17 courses were conducted in which 493 university faculty members were trained.
- Highlight of this year was NAHE'S completing its target of training 400 non-IT faculty members through its two week Incorporating Technology in Education component.
- This year three courses were conducted in which 63 Faculty Members were trained.
- In Phase II, the English Language Teaching Reforms Project awarded the 2nd and 3rd Self Access Centre (SAC) to the Mehran University of Engineering and Technology (MUET), Jamshoro and Sardar Bahadur Khan Women University (SBKWU), Quetta based on the points earned as per eligibility criteria.

- The project will provide the seed money of Rs 1.5 million in three installment as per revised policy.
- During 2011-12, the ELTR project awarded 25 Indigenous fellowships to the English Language Teaching faculty across Pakistan. Currently, these and the nine previously enrolled fellows are pursuing their Masters and MPhil degrees in TESL and other ELT related areas.
- The project also advertised 75 fellowships for the public sector college and University teaching faculty for the year 2012-13.
- The CPD programmes strategically catered 97 teachers through one week orientation programmes and 53 teachers through in depth one month courses in different ELT related areas. 78 faculty members from the ELT and Social Science community were internationally certified through IRP workshops.
- A series of workshops on Computer Assisted Language Learning (CALL) was organized in collaboration with British Council.
- The ELTR Project provided funding for three national/international seminars based on the theme of ELT. The purpose of the funding for the seminars is the enhancement and improvement of research culture in Pakistan. During the FY 2011-12, the project funded three national seminars.
- In the Modern University Governance (MUG) programme for university management, 247 management staff of public sector universities received professional training in 10 strategic management workshops during 2011-12.
- However so far 720 participants from management cadre of the universities have benefitted through continuous professional development orientation workshops since 2007.
- Dr. Javaid R. Laghari, Chairperson HEC, also conducted two seminars at HEC Islamabad and Lahore College for Women University on Leadership.
- During the year 2011-12 three new initiatives were taken under the MUG Programme:
 - I. Orientation Programme for newly Inducted VCs/Institutional Heads;
 - II. Strategic Management Series for the Academic and Administrative HoDs of Universities;
 - III. Lectures on Leadership by Chairperson HEC.

Table 01: Faculty Members and University Management Trained by LID in the Year 2011-12

Categories	Programmes	Total
	LID's Master Trainers-Faculty Professional Development Programme (FPDP)	83
Programmes for University/	I. International Advanced Specified Programme for MT-FPDP	25
College Faculty members	NAHE's Professional Competency Enhancement Programme for Teachers (PCEPT)/ Staff Development Courses (SDC)	493
	ELTR's Indigenous scholarships up to MPhil level for College and University Teachers.	25
	NAHE's Incorporation Technology in Education Programme (ITE)	
	LID 's Orientation and Awareness Programme on HEIs Semester/Examination Systems	
	ELTR's International Resource Persons (IRP)	78
	ELTR's Continuous Professional Development Courses	150
	LID's Continuous Professional Development Seminars/Workshops	1524*
Programmes for University Management	LID's Modern University Governance (MUG) for university management	247
TOTAL		2895

^{*}includes AIT Cascading (490) Figures

Master Trainers-Faculty Professional Development Programme

This is an intensive 8-12 week in-service orientation and professional certification programme for the relatively new and freshly inducted teachers at HE level remained committed during the reporting phase with the same spirit. In 2011-12, 16th, 17th, and 18th Batches of MT-FPDP were organized in which 83 faculty members were certified as Master Trainers taking the overall total to 524 Master Trainers since 2003. Following modules were covered in three batches:

- Teaching as a Profession
- Academic Planning and Management
- Curriculum Development, Assessment and Evaluation
- Learners' Psychology
- Androgogical Skills Microteaching (3 Phases)
- Communication Skills
- · Research Methods and Skills
- Competent (English) Language Usage Essentials (CLUE)
- Information and Communication Technology (ICT) and E-Learning
- Professional and Personal Grooming
- Designing Learning Interventions that Last

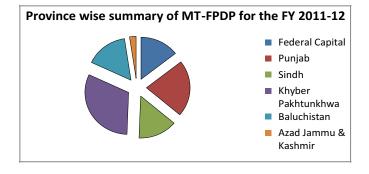
In FY 2011-12, another module on "Value and Civic Education" incorporated in programme in addition to the modules being taught previously.

Table 2: MT-FPDP Summary for the FY 2011-12

S. No.	Programme	Duration	Venue	No. of Participants
1.	16th Master Trainers - Faculty	September 20 to	HEC Islamabad	28
	Professional Development	November 04, 2011		
	Programme			
2.	17th Master Trainers - Faculty	December 27, 2011-	HEC Islamabad	27
	Professional Development	February 24, 2012		
	Programme			
3.	18th Master Trainers - Faculty	April 03, 2012 –	HEC Islamabad	28
	Professional Development	June 01, 2012		
	Programme			
Total				83

Table 3: Province-wise MT-FPDP Summary for the FY 2011-12

S. No.	Province	Total
01.	Federal Capital	12
02.	Punjab	18
03.	Sindh	12
04.	Khyber Pakhtunkhwa	26
05.	Baluchistan	13
06.	Azad Jammu and Kashmir	02
	Total:	83



Pictorial View of 17th and 18th MT-FPDP Activities

Pictorial View of 17th MT-FPDP Activities



Pictorial View of 18th MT-FPDP Activities



Views of MT-FPDP Alumni



Abdul Ghaffar: Assistant Professor, Department of English, University of Education, Lahore **(MT-FPDP Batch 16 Alumni):**

Views: "Being the participant of this training has proved to be an opportunity of a lifetime. It aims at salvation and dissemination of knowledge".



Salma Khan: Lecturer, Department of Economics, Sardar Bahadur Khan Women University, Quetta **(MT-FPDP Batch 16 Alumni):**

Views: "It's a great opportunity for professional grooming of teachers. We got a chance to equip ourselves with modern teaching trends and practices.



Dr. Kashif Ali: Assistant Professor, COMSATS, Institute of Information Technology, Lahore (MT-FPDP Batch 17 Alumni):

Views: "Here we had chance to realize our role. My confidence and behaviour has improved a lot"



Dr. Rabaab Zahra: Assistant Professor, Quaid -i-Azam University, Islamabad (MT-FPDP Batch 17 Alumni):

Views: "I have been through a very fruitful and enjoyable learning process, Resource Persons and Administration are excellent. Thank you HEC for providing such an opportunity"



Dr. Muhammad Arif Ali: Assistant Professor, Bahauddin Zakriya University, Multan (MT-FPDP Batch 18 Alumni)

Views: "It was an excellent platform to be familiar with the faculty members of various universities across the country and promote group research culture".

AIT, Thailand Advanced Training for FPDP Alumni

An MOU was signed between HEC and AIT Extension to impart training to HEC selected participants from the MT-FPDP alumni who cascade their training in their concerned universities and as a reward get the advanced training in AIT Thailand titled Ensuring Training Effectiveness.

As per MoU every year up to three batches consisting of 25 participants (23 university faculty members and two LID coordinators) are sent to AIT Extension for this training.

- In this financial year the third batch completed its training from January 16, 2012 to February 3, 2012 certifying 25 MT FPDP Alumni.
- Overall 73 trainees from the first two batches completed their trainings.
- It is to be noted among these 48, returning 18 participants very promptly completed their cascading workshops and trained more than 450 HEIs faculty and administrative officers in their universities/institutes based on their learning of the AIT workshop.
- The overall aim of the programme was to train these MTs in further advanced areas/ modules like: HRD and Organization, Needs Analysis/Assessment (NA), Training Design and Methods, Leadership and Teambuilding, Training Evaluation and Monitoring, Quality Assurance and Result-based Management (RBM) etc. so that they can successfully arrange, plan and conduct training and continuous professional development activities for their HEIs faculty and management.
- The participants of this training programme were alumni of Master Trainers-Faculty Professional Development Programme (MT-FPDP) who are already HEC Certified Trainers. This specific training will help them to become effective training managers and they will serve as liaison to coordinate training activities between HEC and their respective HEIs.

The Asian Institute of Technology's President Prof. Dr. Said IranDoust also met with the participants of Batch III on February 2, 2012.

- He appreciated the vision of HEC and desired to have a satellite campus of AIT in Pakistan to reach more faculty / management staff by designing customized trainings as per their needs.
- In addition AIT Extension Bangkok arranged for social and cultural activities and sightseeing opportunities were extended.
- During the course the trainees got the opportunity to gain in-depth skill enhancement orientation from world renowned experts which in return added value for each of the Master Trainer.
- The 25 HEIs faculty members will now be required to cascade three week training in three days module and
 will replicate the same in their respective HEIs within next three months with the help and support of HEC
 and their respective HEI.

Table 4: Advanced Faculty Professional Development Programme: Ensuring Training Effectiveness

S. No.	Programme	Duration	Venue	Number of
				Participants
1.	1 st Advanced Faculty Professional Development	March 7-25, 2011	AIT Extension,	25
	Programme	March 7-23, 2011	Bangkok	
2.	2 nd Advanced Faculty Professional Development	June 13-July 01,	AIT Extension,	23
	Programme	2011	Bangkok	
3	3rd Advanced Faculty Professional Development	January 16-	AIT Extension,	25
	Programme	February 04, 2012	Bangkok	
Total				73

Study visit to University of Thai Chamber of Commerce

Study visit to University of Thailand Chamber of Commerce (UTCC) was conducted on January 27, 2012. This was a unique experience where the university facilitated a tour of its departments followed by detailed presentations by Dr. Jakarin Srimoon Executive Director, SEA-LAC Trade Centre, UTCC and other senior management officials. Discussions about university future, success factors, management information system, linkages with foreign agencies and detailed information about their systems and management was shared.

Comments of the Participants



Mr. Muhammad Asif Gondal, Assistant Professor, Faculty of Marine Sciences, LUWAMS, Uthal, The training exceeded my expectations. The interaction and performance at international platform prepared me to face more challenges in my profession as well as in my life. The skills will definitely help to improve the quality of education not in my institution but of Pakistan too.



Mr. Imran Ul-Haq, Assistant Professor, Faculty of Agriculture, University of Agriculture,

It was my first experience abroad and it was fantastic. It was full of knowledge, learning, wonderful experiences, fun and enjoyment.



Ms. Shanila Azhar, Lecturer Department of Computer Engineering, BUITEMS, Quetta

I learned activity-based learning, result-based management, ICT skills, HR skills, they all are helpful and will help me in my profession. I learned a lot formally and informally and during the whole programme from the AIT coordinators, HEC coordinators, participants and surrounding. I am thankful to the Coordinator of AIT and HEC for their timely, professional, and cooperative coordination.'

Continuous Professional Development Seminars/Workshops)

Continuous Professional Development has undergone tremendous change since 2004; LID conducts various refresher courses upto two week duration round the year for the teaching faculty of HEIs across Pakistan based on their need based proposals. These refresher courses aim to provide the background and skills necessary for faculty members to participate positively in the academic activities of the universities. Hence adequate opportunities should be provided for their professional growth and career development. It is also essential to increase their motivation through systematic orientation in specified subject and methodologies, tools and techniques of teaching.

- To date, 6371 university and college teaching faculty reaped benefit since 2003 however during the reporting FY 2011-12, 1034 attended the CPD workshops and seminars.
- One of the remarkable initiative under this programme was to engage a visiting Pakistani Canadian Academic; Mr. Ahmad Salman PMP, from the University of Victoria in Canada who conducted a series on two parallel areas.
 - o The programmes addressed "Case Based Teaching Methodology" and "Understanding the Adult Learner".
 - o Both the programmes were triggered on July 6 in Islamabad. Thereafter the programme was taken to Lahore, Karachi, Quetta and eventually Peshawar.
 - o 249 university teachers were trained under this series all over Pakistan.
 - o The purpose of series on "Case Based Teaching" was to introduce the highly acclaimed Harvard Case Method teaching technique to a variety of teaching faculty members from multiple disciplines to enhance the quality of teaching at various institutions of higher learning.
 - o Similarly the series on "Understanding the Adult Learner" was designed to equip the faculty members with the skills they need in order to design and deliver courses towards making learning environments more meaningful and conducive.
 - o The overarching theme of the workshops was to give the teachers more control over the contents and process of teaching through a design would engage students in a highly effective manner.
- Another highlight of CPD Programme in this Financial Year is the Cascading of AIT returned Master Trainers.
 - o The trainees got the opportunity to get in-depth skill enhancement orientation from world renowned experts which in return added value for each of the Master Trainer. These 67, AIT trained Master Trainers are now cascading three-week training in three-day module and replicating the same in their respective HEIs with the help and support of HEC and their respective HEI.
 - o So far, 18 have done cascading workshops in which they have trained 490 faculty members of their respective HEIs in this financial year.

Table 5: Province-wise Summary of CPD for Fiscal Year 2011-12

Province	Number of Workshops conducted	Number of Participants
Federal	8	218
Punjab	8	490
Sindh	4	106
KPK	6	167
Balochistan	2	53
Total	28	1034

Table 6: Province wise Summary of Cascading Workshops

Province	Number of Workshops conducted	Number of Participants
Punjab	3	87
KPK	4	122
Balochistan	11	281
Total	18	490



Two Day Workshop on Case Based Teaching at LID, Islamabad.



Day Workshop on Case Based Teaching at R.C Lahore.



Case Based Teaching Workshop at HEC R.C Lahore.



HEC National Digital Library Workshop at University of the Punjab, Lahore.



LTE Essentials 4th Generation Wireless Communication Workshop at FUUAST, Islamabad.



Workshop on Understanding the Adult Learner at HEC R.C, Karachi.

Comments by CPD Participants

"It was a wonderful activity organized by Learning Innovation Division and we all are thankful to Mr. Ahmed Salman for his valuable input on Case Based Teaching. I will definitely use techniques learnt through this workshop at my University" - Ayesha Siddiqua, Lecturer Environmental Management, NCBAE, Lahore

"The workshop on Understanding the Adult Learner was very useful and a lot of new things were learnt" - Nazia Nawaz, Lecturer, Psychology, Frontier Women University, Peshawar

"The training imparted quite enough knowledge as required in current market scenario. I appreciate this effective step of HEC" - Dr. Moazzam Islam Tiwana, Assistant Professor, CIIT, Islamabad

"Highly interactive and very much conducive environment for learning was provided by the resource persons" -Muhammad Akram Shahid, Senior Librarian, University of the Punjab, Lahore

Implementation of Uniform Semester Examination System Orientation/Master Trainers Workshops (LI)

In 2003, a national committee of renowned educationists and examination experts was constituted as 'National Committee on Examination System'. The overall preview of the Committee was to review the existing examination policies, analyze the weaknesses and propose improvements for the smooth implementation of Examination System. HEC disseminated policy Guidelines for the Implementation of Semester and Examination System in all HEIs of Pakistan in 2008. The objective of policy guidelines is to encourage HEIs to gradually shift from term and annual system to semester examination system which is worldwide approved system for education based on the base line standards elucidated in the policy document.

At the same time, HEC disseminated the awareness about the policy regarding semester and examination guidelines to all the related stakeholders across Pakistan through its national awareness programme through the following two main activities:

- 1. Master Trainer Workshops on Testing and Assessment
- 2. Open and Customized Workshops/Seminars for Examination Staff and relevant teaching faculty

As many as 1056 faculty and examination staff members through this Programme since 2005. However during the financial year 2011-12, 207 teachers and examination officials attended the various workshops conducted and sponsored by HEC.

- A four-day Workshop on Assessment Drives Learning was held at Learning Innovation Division HEC Islamabad from June 19-22, 2012 which was exclusively designed for the senior medical educationist and examination staff members of medical universities across the Pakistan, 27 participants benefited from the workshop.
- A five-day Master Trainers Workshop on Testing and Assessment was conducted at Kohat University of Science and Technology Kohat from March 26-30 2012 with the aim that the trainers would further cascade their learning in concerned departments/schools/institutes; 29 Master Trainers were prepared for the purpose.
- HEC not only provides the funding and services to well established universities but also keeps abreast of newly established and weak universities to move with new ideas. In this regard a two-day workshop on "Teaching and Assessment in Higher Education" was conducted at Lasbela University of Agricultural Water and Marine Sciences Uthal, Balochistan and University of Sciences and Technology, Bannu, KPK during January 2012. This workshop was conducted by Dr Zarrin Siddiqui from University of Western Australia, Perth, Australia.
- Since HEC is providing learning facilities to the faculty and staff of recognized universities/institutes now it
 has extended this facility to the faculty and staff of affiliated colleges and provide them the opportunity to
 come forward for lead and learning. In this regard a five day Master Trainers Workshop on "Testing and
 Assessment" for the college faculty members of KPK Province was held from December 19-23, 2011 at HEC
 Regional Centre, Peshawar in which 34 college faculty members benefited from the training workshop.
- A three day exclusive workshop on examination system titled "Empowerment of Examination System of
 HEIs held at Learning Innovation Division, HEC from November 24-26, 2011 which was attended by 22
 participants.

Forthcoming Plans of Examination System Programme of HEC

- To create a standardized mechanism for the implementation of semester examination system at all public and private sector HEIs of Pakistan in the light of HEC Policy Guidelines on Semester Examination System.
- Develop a Unified System of Credit Transfer, G.PA, C.GPA and Percentage for HEIs of Pakistan on Indigenous as well as overseas level.
- Implementation of already developed Master Trainers Training Module on examination system across all public/private sector HEIs of Pakistan by implementing cascading model.
- Establishing a comprehensive continuous trainings model in the area of Examination System for HEIs Faculty and Examination staff Members through already established Continuous Professional Development Centres of HEIs with the involvement of renowned overseas experts of examination system on it.

Table 8: Targets achieved during FY 2011-12 for Examination System Programme

S. No.	Seminars/Workshops	Duration	Venue	Participants
1.	4-day Workshop on Assessment Drives Learning at HEC Islamabad from June 19-22, 2012 (only for medical universities across the country)	June 19-22, 2012	LI Division, HEC	27
2.	5-day Master Trainers Workshop on Testing and Assessment at Kohat University of Science and Technology Kohat from March 26-30 2012.	March 26-30, 2012	KUST, Kohat	29
3.	Two-day workshop on Teaching and Assessment in Higher Education	January 26-27, 2012	LUWAMS, Uthal	35
4.	Two-day workshop on Teaching and Assessment in Higher Education	January 23-24, 2012	UST, Bannu	30
5.	Five-day Master Trainer Workshop on Testing and Assessment for college faculty members of KPK	December 19-23, 2011	HEC Regional Centre, Peshawar	34
6.	Three Day Exclusive Workshop on Examination System entitled "Empowerment of Examination system of HEIs"	November 24-26, 2011	LID,HEC ISB	22
7.	Four-day Workshop one Semester System Testing and Assessment at Khyber Medical University, Peshawar from October 17-20, 2011	October 17, 2011	Khyber Medical University, Peshawar KPK	30
Total				207













English Language Teaching Reforms (ELTR) Project Phase II

"Enhancing Learning and Research Capacity of English Teachers' in Higher Education Institutions"

English is considered as the medium of international communication, information, and knowledge exchange all over the globe. In order to address this dire need and incorporate innovative approaches in the concept of language teaching, HEC launched its first-ever exclusive language based English Language Teaching Reforms (ELTR) in July 2004.

ELTR caters to the English Language Teaching faculty of public sector graduate/postgraduate colleges along with the universities in their respective HEIs across Pakistan. The project is dynamically working in many different and vibrant areas related to ELT. The scope of the project is not only restricted to the Indigenous Scholarships and Continuous Professional Development (CPD) courses but in addition to this the funding for the new Research Journals, establishment of Self Access Centre (SAC), Research Projects and national/international conferences and seminars is also available. The details of the activities are as under:

PC-I Activities	Offerings	PC-I Target	Achievements
Indigenous Scholarships/Degree	a. Indigenous Scholarships		
Programmes	 MS in Applied Linguistics and related disciplines. Masters in Applied Linguistics, TEFL, TESL, ELT. PGD, ADP in TEFL, TESL, ELT 	150	34
	b. CPD Courses/ Fellowships		
Continuous Professional	1. CPD Fellowships (up to 4 week)	240	156
	 Computer Assisted Language Learning (CALL) Testing and Evaluation Research Methodology and Skills Androgogical/Pedagogical Skills Open and Customized Programmes in ELT related areas 	1010	433
Conferences/ Seminars etc	Funding for National/International Conferences and Seminars on the theme of English Language Teaching and related issues	10	05
Funding for Research Journals	Funding to start a new English Research Journal	05	02
Funding of Research Projects	Provide ELT Scholars with research grants for small scale research projects	05	In Progress
International Resource Persons' Trainings	To hold/organize IRP trainings to provide international level exposure to English faculty.	12	06
Self-Access Centre (SAC)	Establishment of SAC in four public sector universities	04	03

The year 2011-12 remained full of activity. After the planning and commencement phase in 2010-11, this year was full of new activities; new national and international collaborations made this year more vibrant and academically effective. The project revised certain mechanisms and policies specially related to the Terms of References (ToRs) for the establishment of Self Access Centres. The things were streamlined to address the

procedural issues. New linkages have been established with the international donor agency like British Council, Pakistan. The Indigenous Fellowships attracted the attention of the ELT faculty across Pakistan. Many public/private universities took interest in CPD one week and one month courses and submitted their letter of intent to hold these courses in their institutions. The entire year focused on activities targeted in PC I. The collaboration with some international partner agencies like US Embassy also helped to achieve targets of ELTR Phase II.

ELTR Core Functions

The ELTR Project in its Phase-II came up with new revolutionary objectives to meet international standards. The National Committee on English (NCE) constituted in 2003 was kept intact but the structure of the committee was strategically revised in the beginning of the Phase II. Under the supervision of the Chair, Dr. Saeeda AsadUllah, NCE started working on the policy making and providing guidance in all the key areas of ELT and in the implementation of the Project Phase-II.

- The second meeting of National Committee on English was held on January 24, 2012. Prof. Dr. Saeeda Asad Ullah chaired the meeting.
- The policy decision were taken regarding the award of the second and third Self Access Centre (SAC), recommendations for the International Resource Person, funding procedure for the award of Self Access Centre (SAC), issues regarding research projects and the issues regarding the recognition of degree in Applied Linguistics by FPSC were discussed in detail. The NCE chair referred the issues to the relevant NCE members for the follow up.
- It is important to note that as per objectives of the ELTR Phase-II, a mandate was given to the project to bridge the gap between the Language and Literature community. This was seriously kept in consideration and NCE is responsible to devise the policies to address the issues.





Performance of the ELTR Project during 2011-12

In order to make the ELTR Project more effective and vibrant, Phase-II is working aggressively towards bridging the critical gap between the faculty of English language and literature and both will be very strategically grouped together in the courses of professional development with the initial target of professional training of 1400 ELT Teachers through its Indigenous Fellowships and Continuous Professional Development Programmes.

Indigenous Scholarships for ELT Community

- During year 2011-12 the project awarded 25 Indigenous fellowships to the English Language Teaching faculty across Pakistan. Currently, these and the nine previously enrolled fellows are pursuing their Masters and MPhil degrees in TESL and other ELT related areas.
- The project also advertised 75 fellowships for the public sector college and university teaching faculty for the year 2012-13.

Continuous Professional Development (CPD) Programmes

During year 2011-12 the project organized four one-month courses and four one-week courses in different areas across Pakistan.

- One month workshop on "Androgogical Skills" was organized at University of Education, DG Khan Campus from April 23 May 22, 2012. Dera Ghazi Khan is a far flung area of Punjab province generally attributed as a backward and under-developed region of the country. But the thirst of knowledge of the citizens of Dera Ghazi Khan is no less than the people of the developed area.
 - o Thirty participants benefitted from this training and all the participants were from college and different campuses of the universities like: BZU, Multan, and University of Education, Lahore.
 - o At the closing ceremony Dr. Maqbool Ahmed, Principal UoE, Multan Campus was the Guest of Honour.



One Month Course on Androgogical Skills at UoE, DG Khan Campus (April 23 – May 22, 2012)



One Month Course on Research Methods at SBKWU, Quetta (April 2-May 4, 2012)

- Another workshop in collaboration with the Sardar Bahadur Khan Women University (SBKWU) Quetta, the ELTR Project organized a one month course titled "Research Methodology and Skills" from April 2 – May 4, 2012 for the faculty of ELT and Social Sciences of public sector universities and postgraduate colleges of Quetta.
 - o More than 25 faculty members participated in the workshop.
 - o It was an in depth training for the faculty members interested in pursuing higher degrees and in research activities in future.
- ELTR in collaboration with COMSATS, Islamabad organized one month workshop on English for Specific Purposes (ESP) at Faculty Development Academy from January 2 – February 3, 2012; 18 faculty members of twin cities benefitted from the course.
 - o The group was a mixed level of teachers. Some teachers had recently started to teach ESP courses while others had a number of years of experience teaching relevant subjects. However, there were some participants who had no experience of ESP teaching.



One Month Course on Research Methods at AWKU, Mardan (Dec 22 2011-Jan 21 2012)



One Month Course on English for Specific Purposes at COMSATS, Islamabad (Jan 02 – Feb 03, 2012)

- In addition to one month workshops 27 faculty members of nearby colleges of the Abdul Wali Khan University, Mardan benefitted from fellowship programme on "Research Methodology and Skills" from Dec 22 2011-Jan 21 2012.
 - o The course was exclusively designed for the improvement of the research skills of the college teaching faculty. The course aimed at developing the participants' knowledge about research and related activities, as well as, providing them with hands-on practice with designing research tools, using the SPSS Package, and developing a research proposal.

During 2011-12 a good number of the ELT faculty from different universities and colleges benefitted through the six-day workshops on different areas related to ELT etc.

- A workshop on "ELT: Turning from theory to practice" was organized in collaboration with MLLC University of Gujrat, from February 27 March 3, 2012.
- In collaboration with University of Science and Technology, Bannu, the project organized one week workshop on "English Language Teaching". Thirty ELT faculty members from local colleges and universities attended the course.



One week Course on English Language Teaching at University of Gujrat (Feb 27 March 03, 2012)



One week Course on English Language Teaching at UST, Bannu (Jan 09 Feb 13, 2012)

- Advanced level workshop on Computer Assisted Language Learning (CALL), the usage of computer and internet in language learning was held at Sardar Bahadur Khan Women University, Quetta from November 25-30, 2011. The multi variant group of 20 participants from different public sector colleges, universities and Bureau of Curriculum and Extension Centre Quetta participated in this course.
- Similarly another workshop on "Androgogical and Pedagogical Skills" held at University of Sargodha in Oct., 2011 a University of Sargodha; 29 participants attended the workshop.

International Resource Person (IRP) Trainings

The English Language Teaching Reforms (ELTR) Phase II has joined hands with British Council to organize International Resource Person Trainings on different specified areas. The IRPs holding distinguished higher degree in TEFL / Applied Linguistics, TESOL, having international reputation and vast experience in the related field conduct the trainings. This actually aims to provide international exposure to the English Faculty of public

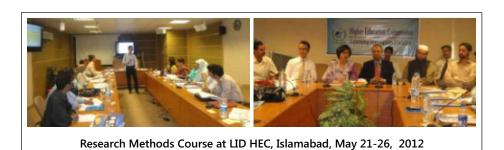
sector Universities and Colleges. The participants are jointly certified by HEC and BC. Fulltime/ Permanent English Faculty of Public Sector Universities / Colleges, teaching English at the graduate level are eligible to apply for the training programme.

Research Methods: A three Tier IRP Series by Dr. Simon Borg: HEC and BC strategically started another joint venture and organized another series of International Certification



Course on "Research Methods". Dr. Simon Borg, Professor, School of Education, University of Leeds is proposed to work as International Resource Person to conduct a series of workshops within the country.

- The selected participants are required to participate in all three workshops and complete on-line task. During the visit, the IRP will devote a total of 30 days of work in the form of (i) three 5-day workshops in the country during the year, (ii) a baseline study and follow-up programme and (iii) between-workshop on-line mentoring, Programme Concept Note, Expected Outcomes of the project.
- The 1st tier workshop held at LID, Islamabad, from May 21-26, 2012. 19 ELT faculty members from colleges and universities across Pakistan attended the workshop.
- The 2nd tier workshop is planned for October 2012.



Series of IRP workshops on Computer Assisted Language Learning (CALL) (November 30 - December 12, 2011)

A series of workshops on Computer Assisted Language Learning (CALL) was organized in collaboration with BC at different cities like: Islamabad, Multan, and Karachi.

Sixty English Language teachers of public sector universities and colleges across Pakistan were trained as
the Master Trainers of CALL and received the international certification. Mr. Nik Peachy was the resource
person of this CALL series.

New Self-Access Centres

• In Phase II, the ELTR Project will also support establishing the Self Access Centres in order to strengthen the existing English departments and research centres. The purpose is to upgrade the English language proficiency of faculty of other disciplines in Humanities and Social Sciences as well. The ELTR Project awarded the 2nd and 3rd Self Access Centre (SAC) to the Mehran University of Engineering and Technology (MUET), Jamshoro and Sardar Bahadur



Khan Women University (SBKWU), Quetta on merit. The project will provide the seed money of Rs 1.5 million in three installment as per new policy.

- o The MoU signing ceremony for the award of SAC at Sardar Bahadur Khan Women University (SBKWU), Quetta was held on May 10, 2012. The Vice Chancellor (SBKWU) and the Director General (LID) attended the MoU signing ceremony in the presence of the HEC and university officials.
- o The second SAC was awarded to Mehran University of Engineering and Technology (MUET), Jamshoro. The MoU signing ceremony for the award of SAC was held on May 18, 2012. The Vice Chancellor (MUET) and the Project Manager (ELTR) attended the MoU signing ceremony in the presence of the HEC and university officials.

It is important to note that during the previous years in Phase I, two SACs were established in Allama Iqbal Open University (AIOU), Islamabad and Bahauddin Zakariya University (BZU), Multan. In Phase II the third SAC was awarded to the University of Malakand (UoM).

National/International Seminars

The ELTR Project provided funding for three national/international seminars based on the theme of ELT. The purpose of the funding for the seminars is the enhancement and improvement of research culture in Pakistan. During this FY the project funded three national seminars:

- "Challenges in Teaching English in Contemporary Times" on June 14, 2012 at Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS).
 - Engineer Ahmed Farooq Bazai, the Vice Chancellor of BUITEMS and Dr. Feroz Qaisar Qasi (NCE member) from UoB attended the closing ceremony.





- "Testing and Evaluation in English Language Teaching" on May 17, 2012 at Government College University of Faisalabad.
 - o The Vice Chancellor, Prof. Dr. Syed Zakir Hussain of GCU Faisalabad was the chief guest.
 - Ms.Rubina Mustafa, Project Manager also addressed the audience and shared the Mission Vision of the ELTR project.





• ELTR and British Council planned to initiate Programme for "Transforming English Language Skills" (TELS). TELS is the joint venture of British Council and HEC to enhance employability skills of the graduate students and communication skills of the teachers. In this regard an international seminar on "Transforming English Language Skills" (TELS) held in February where participants from 20 different universities covering all across Pakistan participated.



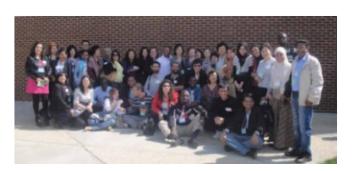


ELTR Dynamic Endeavours towards Success

US Sponsored Educators Training and Teaching English to the Speakers of Other Language Convention 2012

The ELTR project along with in-service trainings and other activities, provided a very dynamic opportunity to its two Project Managers Ms. Rubina Mustafa and Syed Musa Hassan, of getting international exposure.

They attended US Sponsored educators training and Teaching English to the Speakers of Other Language Convention 2012 in the US from March 18 through April 1, 2012. The visit included a week long



professional development workshop at Georgetown University, Centre for Intercultural Education and Development (CIED) and annual Teacher of English to Speakers of Other Languages (TESOL) Convention in Philadelphia, Pennsylvania.

This visit provided them an opportunity to observe US educational system in depth. Visits to various schools and George Town University were exclusively arranged for the workshop participants. Class observations, informal discussion sessions with faculty, lectures by educational experts and predominantly discussions on different learning models were the striking features of this workshop.

Career Orientation Seminar for the Students of O/A Level

The Learning Innovation Division HEC organized one day "Career Orientation Seminar for the students of O/A Level" in September 27, 2011. Over 50 students of O/A levels from the Islamabad College of Arts and Sciences participated in the seminar. This seminar was conducted in continuation of the "Career Orientation Seminar for A level/HSSC Students" in 2010.

The areas strategically selected for the orientation were directly relevant to their career. In this regard the representatives of different divisions were engaged for the orientation. The areas which were covered include the ranking system of Universities, Universities specializing in Business/ Engineering/Art, Websites/ avenues that students can explore for scholarships at the undergraduate level,



General university application guidelines and Information Technology/Pakistan Education and Research Network (PERN).

Mr. Anwar Amjad, Director General (IT), Mr. Waseem Hashmi Syed, Project Director (HRD), Mr. Bashir Khan, Assistant Director (Quality Assurance) and Mr. Ahtesham Ali Raja, Project Manager, National Business Education accreditation Council were the resource persons as they presented their respective division and their functions particularly of the interest of the students. The mixed group of the O & A Level students shared their queries with the resource persons and showed keen interest in their relevant areas.





HEC took this task to orient the youth of the country for their future endeavors. All the students appreciated the efforts of HEC and recommended to

extend this exercise for the other colleges and schools. Most of the participants were with the view that the focus should be on Medical Colleges and Arts and Design Institutes. They appreciated the content and the areas which were covered in this seminar.

He motivated the youth to move ahead with HEC for their future endeavours. He said that though this is the very initial stage of the career of the O/A Level students but on the other hand it is actually the most critical stage. He asked them to come forward to secure the indigenous and international scholarships being offered under the auspices of HEC.

HEC/BC Co-signed an MoU for "Transforming English Language Skills (TELS)

ELTR Project Phase-II and British Council planned to initiate Programme for "Transforming English Language Skills" (TELS). TELS is the joint venture of British Council and HEC to enhance employability skills of the graduate students and communication skills of teachers. The main aim of the programme is to support Pakistani higher education sector to improve English Language skills of students and teachers.

The main aim of this programme was to support HEC and Pakistani higher education sector to improve English language skills of students and teachers in the coming five years. Teachers face difficulty in delivering lectures in English, even if the mode of communication is English for that particular university. Students find it difficult to understand the lectures if it is in English, naturally teachers are either inclined to translate the things in the other language and students tend to memorize the lecture instead of understanding. A series of focused group discussions were carried out in all provinces of Pakistan. It was found out from the results of Focused Group Discussions for International Higher Education in October 2011 that need for learning English language is very different in HE sector from the need of the school and colleges. It was also found that there is a huge demand from universities in Pakistan to develop an English language course for graduating students who could be trained to improve their English skills for employability. HEC/BC launched one day seminar on "Need Analysis for the Transforming English Language Skills Programme (TELS)" in February 2012 which was attended by 28 English faculty members from different universities.

To finalize the English Modules local authors/coordinators were engaged from April 10 to 15, 2012. British Council hired the Open University, UK as UK Consultants for this programme. Dr. James Donohue and Sarah North from the Open University, Milton Keynes, United Kingdom, visited Pakistan for Needs Assessment study form February 7-18, 2012. British Council after need assessment process developed course contents for presession training, comprehensive course for graduating students and the training modules in consultation with HEC for teachers enabling them to teach and deliver the modules.

Province	Universities	HEIs
	International Islamic University,	Govt. Postgraduate
	NUML	College for Women,
Federal/AJK/GB	COMSATS	Satellite Town,
rederal/AJR/GD	Riphah International University	Rawalpindi
	AJK University, Muzaffarabad	Islamabad College for
	Karakoram University, Gilgit	Women, F-6/2 Islamabad
	Bahauddin Zakariya University,	
Punjab	Multan	
	Govt. College University, Faisalabad	
	University of Sindh, Jamshoro	
Sindh	University of Karachi	
Jillan	Teacher Development Centre,	
	SPELT	
	University of Malakand	
Khyber Pakhtunkhwa	Shaheed Benazir Bhutto University,	
	Sheringal	
	Lasbela University of Agriculture,	
Balochistan	Water and Marine Sciences,	
	BUITEMS, Quetta	

Detail of UK Consultants' Visit to Pakistan

After completion of workshop in Islamabad, the UK Consultants with BC visited universities as mentioned in the above table. In this regard Regional Centres will be involved to coordinate with the universities in Sindh and Punjab whereas the representative from universities of Balochistan, KPK, GB and AJK were invited to join the Core Programme workshop at HEC Islamabad. Universities are keen to launch and offer the course to all graduating students before they leave the university. Once rolled out, this course could be sustained as a regular programme and universities can run it as a sustainable programme. In order to achieve the aims and objectives of this programme, Dr. Saeeda Asadullah joined as National Consultant.

The ELTR Project in its Phase-I and II catered to 2047 teachers through its different programmes and activities. During the FY 2011-12 25 Indigenous Fellowships were awarded to the ELT faculty in Public sector universities across Pakistan. The CPD programmes strategically cater to the continuous capacity building needs of ELT teachers at HEIs across Pakistan and benefitted 97 teachers through one week orientation programmes and 53 teachers through in depth one month courses in different ELT related areas; 78 faculty members from the ELT and Social Sciences community were internationally certified through IRP workshops.



Table 10: Achievements Phase-II

Region	No. of Participants Traine			TOTAL
	2010-11	2011-12	2012-13	
AJK	30	1		31
Balochistan	48	47		95
Federal Area	9	33	1	43
Gilgit- Baltistan		1		1
Khyber Pakhtunkhwa	42	72	57	171
Punjab	87	133	10	230
Sindh	23	24	5	52
Others Institutions				0
TOTAL	239	311	73	623

Table 11:Achievements Phase-I

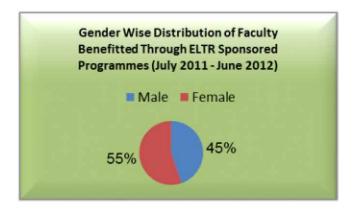
Table 12: Faculty Benefitted Through ELTR Sponsored Programmes (July 2011 - June 2012)

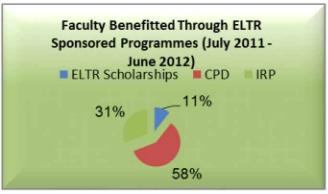
Region		No. of Participants Trained					TOTAL
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	
AJK						_	0
Balochistan	20	0	0	33		SE	53
Federal Area	51	65	20	34		PHAS	170
Gilgit-Baltistan		0				<u>ā</u>	0
Khyber Pakhtunkhwa	19	82	86	22	80		289
Punjab	63	132	112	72	111	ANNING	490
Sindh	84	131	148	27	29	N Y	419
Other Institutions			1		2	4	3
Total	237	410	367	188	222		1424

Region	Indigenous Scholarships	Continuous Professional Development Programmes		International Resource Persons' Trainings	Total
		1 Week	1 Month		
AJK				1	1
Balochistan			26	1	27
Federal Area			18	12	30
Gilgit- Baltistan	1				1
Khyber Pakhtunkhwa	1	30	28	9	68
Punjab	20	23	25	34	102
Sindh	3			21	24
Others Institutions					0
TOTAL	25	53	97	78	253

Table 13: Gender Wise Distribution of Faculty Benefitted Through ELTR Sponsored Programmes (July 2011 - June 2012)

Programme	Gende	Total	
	Male	Female	
ELTR Scholarships	12	13	25
CPD	66	84	150
IRP	35	43	78
TOTAL	113	140	253





ELTR Alumni Gallery

Rab Nawaz Khan, Lecturer- SBBU Sharingal Dir (Upper)

I learnt much more about research and menace of plagiarism. The sessions were excellent in all aspect of learning and also interesting and exciting for me. Ms Sobia Khan, Assistant Professor- NUML Multan Campus

Such workshops should be held frequently for professional development. Universities/colleges should be directed to encourage teachers to attend these workshops.

Ghulam Rasool, Lecturer- Govt. Ghazali College Latifabad, Hyderabad

It's been a great learning experience.

I have enjoyed a lot and explored many things which I have never used before. Hope such activities will be held in future too.

Farhat Khannam, Lecturer- Govt. Postgraduate College for Women, Samanabad, Lahore



It is a great opportunity provided by HEC. I am doing my M. Phil TESL in Beaconhouse National University, Lahore.

National Academy of Higher Education (NAHE), Year 2011-12 Introduction of NAHE, Phase-II

National Academy of Higher Education (NAHE) is the only project of HEC working on a large scale for the professional development and generic skill enhancement of the university faculty across Pakistan. It has reached the far-flung areas of the country, carrying the spirit of empowering instructional leaders and bringing quality in the higher education classrooms.

NAHE Phase-II aims to enhance pedagogical and research skills of the Higher Education Faculty through conducting professional development programmes at their door steps. As per PC-I of the project 2500 University faculty members are targeted to benefit through two major components of NAHE II, one is Professional Competency Enhancement Programme for teachers PCEPT and the second one is Incorporating Technology in Education ITE.

Achievements of the Project

1. Professional Competency Enhancement Programme for University Teachers (PCEPT)

One month PCEPT course conducted by one of the HEC's oldest functioning project i.e. National Academy of Higher Education (NAHE) has gained popularity in higher education circles especially teaching spheres due to its wide ranging impact on the instructional skills of the university faculty members. For receiving this professional exposure with the nation's leading communication specialists, the faculty members don't have to leave their places/residences instead they are given this life changing experience at their doorsteps. It is worth mentioning here that a group of prominent educationists joined hands with NAHE team in spearheading this mission, serving as facilitators of these courses across the country.

The following seven modules are included in the PCEPT Programme:

- 1. Teaching as a Profession
- 2. Academic Planning and Management
- 3. Curriculum Development, Assessment and Evaluation
- 4. Learner's Psychology
- 5. Androgogical Skills
 - Micro-Teaching (Theory and Practice)
- 6. Communication Skills
- 7. Research Methods and Skills

NAHE/HEC is an equal opportunity provider, up to a challenging level, and this equity approach has resulted in the form of proclaiming this course as the broadest radius training



The distinguished features of the PCEPT courses attracted 67 universities of Pakistan and till now in total more than 1800 instructional drivers are equipped with the driving toolkits.

The distinguished features of the PCEPT courses attracted 67 universities of Pakistan out of the total 75 universities and in total more than 1800 instructional drivers are equipped with the driving toolkits with full zeal and zest.

Achievements during 2011-12

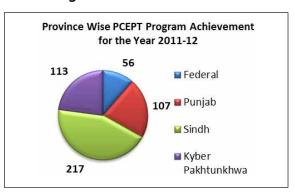
• In total, 493 faculty members have been imparted training through 17 PCEPT Programmes held across the country. The detail is given in tabular form below:

S. No.	Name of Selected University	Faculty Members trained
1.	Peoples University of Medical and Health Sciences, Nawabshah	31
2.	Dawood College of Engineering and Technology, Karachi	26
3.	Shaheed Mohtarma Benazir Bhutto Medical University, Larkana	30
4.	Institute of Business Administration, Sukkur	28
5.	NED, UET, Karachi	32
6.	University of Malakand, Chakdara-Dir	35
7.	GC University, Faisalabad	27
8.	University of Engineering and Technology, Taxila	23
9.	National Textile University, Faisalabad	30
10.	Khyber Medical University, Peshawar	26

S. No.	Name of Selected University	Faculty Members trained
11.	Allama Iqbal Open University, Islamabad	29
12.	University of Education, Lahore	27
13.	Federal Urdu University of Arts, Sciences and Technology, Islamabad	27
14.	DOW University of Medical and Health Sciences, Karachi	35
15.	University of Swat	29
16.	Bahria University, Karachi, Campus	35
17.	University of Peshawar, Peshawar	23
	Total	493

Province-wise Distribution of Faculty Members Trained under PCEPT Programme

		1, 2011.12
Province	Total Faculty	Year 2011-12
	Members	
	Trained	
Federal	302	56
Punjab	564	107
Sindh	407	217
Kyber Pakhtunkhwa	352	113
Balochistan	141	-
Azad Jammu and Kashmir	31	-
Total	1797	493



^{*} All the universities of Balochistan province have been provided funding for one month training in previous years, that's why Balochistan province figure is zero during the current year.

2. Incorporating Technology in Education (ITE)

Incorporating Technology in Education (ITE) is the second major component of National Academy of Higher Education (NAHE) phase –II. This programme is focused on equipping higher education faculty with the latest and state of the art ICT tools and techniques that can be effective in the process of learning and teaching. •For the training of 400 non-IT teachers through ITE Programme, NAHE developed an indigenous course that is comprised of three modules.

- Module 1: Computing Fundamentals for Teachers
- Module 2: ITE Office Tools
- Module 3: Hyper Media

Table 16:

S. No.	Name of Selected university	Starting Date	Completion Date	Faculty Members trained
1.	Institute of Business Management, University of Peshawar	July 2, 2012	July 13, 2012	20
2.	Khyber Medical University, Peshawar	January 9, 2012	January 24, 2012	20
3.	Quaid-i-Azam University, Islamabad	December, 2011	January, 2012	23
	Total			63

Participants' comments

"PCEPT broadened my vision and made me more considerate towards my students" (Dr. Farida Wagan from University of Malakand, Chakdara-Dir)

"It was a wonderful experience. The results will be roseate when we apply the taught techniques in our classes". (Dr. Nazia Azam Yousfani, National Textile University, Faisalabad)

The course should be made compulsory for all the faculty members to enhance their basic teaching skills irrespective of the institutions or disciplines they belong to. (Dr. Rafique Ahmed Sehito) People's University of Medical and Health Sciences for Women Nawabshah Shaheed Benazirabad

Modern University Governance Programme for University Management

Higher Education Commission's strong drive towards empowering universities in governance and strategic management was geared up during the current year 2011-12, through its Modern University Governance programme for university management (MUG). In this regard the university management ranging from vice chancellor to hostel warden is targeted with the broad mandate of qualitative HR development and capacity building of the existing university management which are considered the backbone of the system.

HEC's initiative through MUG programme will fill the gap that in spite of many efforts the management staff of HEIs still does not have a streamlined system of regular professional retreats or capacity building trainings to enhance their skills in the various areas they are serving and supporting the academia as well as administering their duties towards the smooth functioning of university offices. Therefore MUG aims to equip them with latest governance tools as well as bridge the gap between management and academia.

Highlights of this Financial Year under MUG Programme were three new initiatives:

- I. Orientation Programme for newly Inducted VCs/Institutional Heads
- II. Strategic Management Series for the Academic and Administrative HoDs of Universities
- III. Lectures on Leadership by worthy Chairperson HEC
- LID under its MUG Programme has trained 720 University Management officers in 31 activities so far.
- During the current year 2011-12, 10 activities were conducted in which 247 University Management Officers from various departments of universities were trained across Pakistan.
- 23 newly inducted vice chancellors were given orientation about HEC initiatives.
- 224 senior management staff of seven universities across Pakistan were given training on strategic management of their respective HEIs which were all attended by their vice chancellors as well.

The first event held during the current year was the first ever workshop for the newly inducted Vice Chancellors/Institutional Heads. Purpose of this programme was to share HEC initiatives with the Heads of the HEIs and sensitize the university management to implement higher education reforms in the universities.

- During the two day workshop Dr. Javaid R. Laghari, Chairman HEC delivered a keynote address on Leadership and Management Skills.
- The VCs discussed their role and relationship with Higher Education Commission and their respective provincial governments.
- The working groups of VCs defined their institution's vision, mission, strategic planning framework and expectations from HEC and its partner organizations.

- The Vice-Chancellor University of Birmingham, Birmingham and Deputy Vice Chancellor University of Wales, New Port, UK was also linked through Video Conferencing to discuss leadership and good governance in higher education institutions with VCs of Pakistani universities.
- Dr. Mary Linda Armacost, Former president of two US universities, conducted a session on Institutional Heads role as Educational leaders.
- This programme ensures the management system of universities to be equipped with the best of leadership and governance tools so that it facilitates and supports the academia in the most efficient and effective manner. This programme will become a regular feature of HEC initiatives to reform the university management.

Address at the Opening Ceremony First HEC Orientation Workshop for newly inducted Vice Chancellors / Institutional Heads Learning Innovation Division, HEC Islamabad. September 14, 2011





Group Activity in Progress

First HEC Orientation Workshop for newly inducted Vice Chancellors/ Institutional Heads Learning Innovation Division, HEC Islamabad. September 15, 2011



Group Photo at the Opening Ceremony

First HEC Orientation Workshop for newly inducted Vice Chancellors / Institutional Heads HEC Islamabad. (September 14, 2011)

HEC on the directives of the competent authority started a series titled Strategic Management of HEIs targeting the senior management to empower them with the principles of strategic management of universities and for streamlining governance issues.

- Each of the workshops was attended by the Vice Chancellor and his or her team respectively. In this regard a
 series of two day workshop was held in Quaid-i-Azam University Islamabad, NUST Islamabad, Karakoram
 International University Gilgit, Lasbela University of Agriculture, Water and Marine Sciences Uthal, Shah
 Abdul Latif University Khairpur, Azad Jammu and Kashmir University Muzaffarabad.
- Vice Chancellors along with the Administrative and Academic HODs of the universities were the participants of this series.
- The resource persons of this series were Dr. Mary Linda Armacost and Dr. Syed Tahir Hijazi. This series
 addressed the issues involved in defining an effective department with a culture that seeks continuous
 improvement and understanding what makes a department work. Series equipped participants with basic
 principles, processes involved in Strategic Management, Barriers to Strategic Management at their
 respective HEIs and Strategies for overcoming these.
- 224 participants were trained in seven Strategic Management workshops.



Group Activity in Progress

Strategic management and HEC Initiatives Awareness Workshop for HODs of Karakoram International University, Gilgit. February 15-17, 2012







Dr. Mary Linda Armacost conducted QAU Workshop



Ms. Noor Amna Malik DG (LI) Briefing the Audience regarding MUG programme in QAU Workshop, November 30, 2011



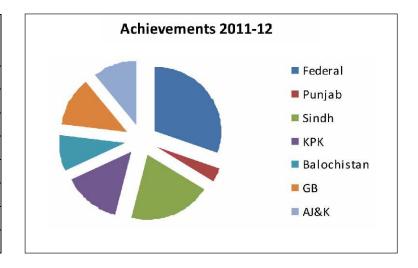
Group Photo of Participants along with VC SALU at Closing Ceremony Strategic Management Workshop for Shah Abdul Latif University HODs June 26-27, 2012

Table 17: Summary of MUG activities for University Management during 2011-12

S. No.	Workshop / Training Title	Dates	Venue	Number of Participants			
	Summary 2011-12						
1.	First HEC Workshop for newly inducted Vice Chancellors / Institutional Heads	September 14-15, 2011	HEC ,Islamabad	23			
2.	Lecture on "The Wizardy of Leadership" by Chairperson HEC	November 15,2011	HEC ,Islamabad	400*			
3.	Lecture on "The Wizardy of Leadership" by Chairperson HEC	November 17,2011	Lahore College for Women University	800*			
4.	Strategic Management Workshop for HoDs of Quaid-i-Azam University (QAU)	November 29-30, 2011	QAU Islamabad	29			
5.	Good Governance and Strategic Management Workshop for HODs of National University of Science and Technology (NUST)	December 9-10, 2011	NUST Islamabad	43			
6.	Strategic Management and HEC Initiatives Awareness Workshop for HoDs of Karakoram International University, Gilgit. (KIU)	February 15-17, 2012	KIU Liaison Office, Islamabad.	30			
7.	Strategic Management Workshop for HoDs of Lasbela University of Agriculture, Water and Marine Sciences, Uthal (LUAWMS).	March 21-22, 2012	LUAWMS, Uthal.	21			
8.	Strategic Management Workshop for HoDs of Azad Jammu and Kashmir University, Muzaffarabad (AJKU).	May 2-3, 2012	AJKU Muzaffarabad.	26			
9.	Strategic Management Workshop for HoDs of Abdul Wali Khan University, Mardan. (AWKUM).	June 13-14, 2012	AWKUM Mardan.	30			
10.	Strategic Management Workshop for HoDs of Shah Abdul Latif University, Khairpur. (SALU).	June 26-27, 2012	SALU Khairpur	45			
Total				247			

^{*}figures not included in total

Province	Number of Workshops conducted	Number of Participants
Federal	2	<i>7</i> 5
Punjab	1	9
Sindh	1	49
KPK	1	35
Balochistan	1	22
GB	1	30
AJandK	1	27
Total	08	247



Research & Development

Research, Innovation and Commercialization

The economic development of a country is directly proportional to the research development and to the quality of research being conducted by the universities. Excellence in research in any field of learning, integrates itself into the tapestry of day-to-day life, playing a pivotal role in defining the way forward. Similarly, there is a strong conviction that innovation and commercialization of research is translated in terms of economic prosperity of any nation. However, research commercialization is only possible if the research undertaken by the universities is able to attract the industrial sector. Furthermore, to strengthen the nexus of the research institutions and the industry, there is a dire need to ensure quality research.

To this end, the Research and Development Division of the Higher Education Commission (HEC) executes programmes and projects which ensure sustainable and progressive research culture. Thus in order to further strengthen the research initiatives of the universities, R&D Division adopts a wholesome approach for development through research, which ranges in objectives from personal development to strengthening of universities – through development of research incubators, capacity development of human resource and exposure of faculty and researchers to international academia by establishing university-to-university linkages.

During fiscal year 2011-12, HEC spent Rs. 1,379 million for promotion of research and related activities. The major portion of this funding was utilized to support research proposals of the faculty to execute the research activities in basic and applied disciplines through National Research Programme for Universities (NRPU) and access to scientific information through Digital Library Programme (DLP). During the year, 513 new research proposals from university faculty were received out of which 134 proposals were recommended for funding after rigorous peer-review and technical evaluation.

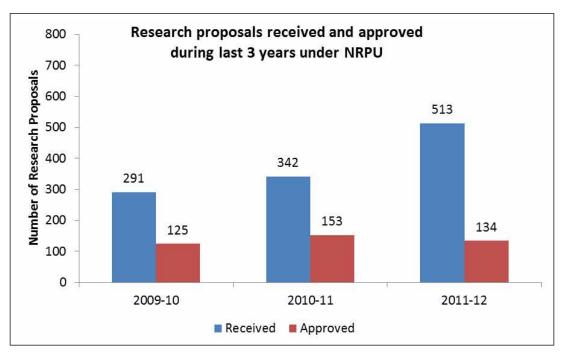
Research and Development Division's initiative to provide travel grant to faculty and PhD scholars for paper presentation and to pursue PhD studies abroad remained the most popular programme in which 843 faculty members and scholars were provided travel grants to proceed abroad. In the year 2011-12, Rs. 128.024 million were provided as travel grant support. Similarly, during this period 131 seminars, conferences, symposia and workshops were sponsored by spending Rs. 66.347 million.

Financial Year (2011-12) Rs. in Million	R&D Division by Number	
1,714	Research support to universities	
134	Research projects approved (NRPU)	
786	On-going research projects (NRPU)	
843	Travel grants beneficiaries	
131	Seminars/workshops sponsored	
556	Beneficiaries of access to scientific instrumentation	
58	Number of scientific equipment repaired	
18	ORIC established	
5	Operational Business Incubation Centre (BIC)	
37	Companies launched through BIC	
5	Patents filed	
6299	Number of publications in Impact Factor Journals	

Research Support to University Faculty

National Research Programme for Universities (NRPU)

NRPU provides an opportunity to the faculty members to undertake research projects in basic and applied disciplines. The objective driving this programme is to provide modest grants to faculty members so as to catalyze research and enhance the capacity of researchers to undertake bigger initiatives, which address the local demands. Under NRPU, research grants are awarded on competitive merit for high-level and promising scientific research projects to be carried out in Pakistan by university teachers. During the year, 513 research proposals from faculty members of public sector universities and private universities eligible for public funding were received. This year, the highest number of research proposals was received as compared to the last three years. Out of these, 134 research projects were approved for funding and 149 research projects were rejected after evaluation. In addition, there are 362 research proposals in the evaluation phase.

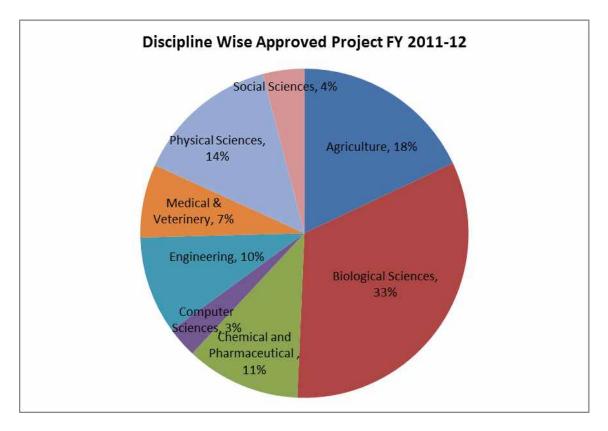


The regional trend to submit research proposals seems dependent upon the number of universities in the region. The region-wise submission of proposals is highest among the universities from Punjab, Federal Area, Sindh and Khyber Pakhtunkhwa respectively. Table below shows the regional distribution of the proposals received during the last three years.

Statistics regarding submission of research proposals during the last 3 years

S. No.	Region	No. of Proposals Received				
5. No.	Region	2009-10	2010-11	2011-12	Total	Share
1	Punjab	130	110	213	453	39.26%
2	Federal Area	72	128	156	356	31.67%
3	Sindh	52	54	73	179	15.44%
4	Khyber Pakhtunkhwa	32	42	59	133	11.48%
5	Balochistan	2	4	7	13	1.12%
6 AJK-GB		3	4	5	12	1.04%
Total		291	342	513	1146	

During the year 2011-12, a major proportion of the research grant was awarded to Biological, Agricultural and Chemical Sciences (62%). Engineering and Medical Sciences made up 17% of the total research grant. The Social Sciences projects remained low. To address the issue, HEC has initiated Thematic Research Grant Programme to finance the research proposals of Social Sciences.



During the current fiscal year, following 72 NRPU projects were completed.

S. No.	Principle Investigator	Project Title	Cost (Rs.)
1	Dr. Nasim Hasan Rama, Department of Chemistry, Quaid-e-Azam University Islamabad	Synthesis characterization and biological evaluation of isocoumarins thioisocomarins isopquinolinoes and their dihydroderivatives	4,604,767
2	Dr. Syed Dilnawaz Ahmed Gardezi, Department of Plant Breeding and Molecular Genetics, University of Azad Jammu and Kashmir, Muzafarabad AJK	Genetic improvement of autumn olive (elaeagnus umbellate thumb) for economic activity in earthquake hit mountainous region of Pakistan and identification and isolation of vitamins (ace) and iron genes for bio- fortification of cereals	5,719,890
3	Dr. Muhammad Zafar Iqbal, Chairman, Department of Botany, University of Karachi	Impact of vehicular emission on germination, growth and metal contents of some plants in Karachi City	1,020,622
4	Dr. Yasmin Nergis, Department of Environment Research, Bahria University, Karachi	Ecosystem Research on water resources management in Sindh East	4,106,635

S. No.	Principle Investigator	Project Title	Cost (Rs.)
5	Dr. Jamshed Iqbal, Department of Pharmacy, CIIT Abbottabad	Cloning and expression of human enzymes in escherichia coil and development of high-throughput capillary electrophoresis and microchip based nano scale test system for analysis of inhibitors	7,065,003
6	Dr. Fazalullah Khan Bangash, Department of Chemistry, University of Peshawar	Fortification and physiochemical evaluation of canola and sunflower oils with sea buckthorn oil	960,348
7	Dr. Dilshad Ahmed Khan, Department of Pathology, NUST	Bio monitoring of chromium exposure in leather industrial workers in Sialkot	657,621
8	Dr. Mumtaz Hussain, Department of Botany, University of Agriculture Faisalabad	Survey of weeds infesting the arable fields in t punjab and development of judicious weed control strategies	5,274,159
9	Dr. Abdul Gaffar, Department of Meteorology, COMSATS Institute of Information Technology, Islamabad	Vertebrate evolution, biogeographic relation and paleoenvironments of the siwaliks of Pakistan	862,512
10	Dr. Zafar Saied Saify, HEC Eminent Scholar, HEJ Research Institute, University of Karachi		
11	Dr. Tariq Mehmood, Department of Plant Sciences, Quaid-i-Azam University, Islamabad	In vivo functional analysis of a wound inducible promoter to evaluate its potential for insects resistance	4,799,439
12	Dr. Salamat Ali, Department of Physics, Government College University, Lahore	To investigate the phase transitions in nano- structure materials	5,926,493
13	Col. Shahid Jamal, Pathology, Armed Forces Institute of Pathology, Army Medical College, NUST	Estrogen receptor, C-Erbb-2,Ki-67 And P-53 status of male breast Carcinoma in our setup	360,643
14	Dr. Muhammad Ahmed Mesaik, Dr. Panjwani Centre for Molecular Medicine and Drug Research, University of Karachi	Discovery of immunomodulatory natural products and understanding the molecular basis of their activity	4,457,300
15	Dr. Asghari Bano, Department of Plant Sciences, Quaid-i-Azam University, Islamabad	Physiological and biochemical measures to improve the quantity and quality of biodiesel	3,406,760
16	Dr. Yaseen Iqbal, Foreign Professor, Department of Physics, University of Peshawar	The effects of various substitutions on the microstructure and properties of Sr Ti03-Sr2Nb207 based electro-ceramics for microwave application	3,582,214
17	Dr. Aysha Habib Khan, Department of Pathology and Microbiology, The Aga Khan University, Karachi	Determination of calcium absorption from intestine at various vitamin D levels using strontium as the surrogate marker in Pakistan population	821,100
18	Dr. M Mazhar Hussain, Head of Physiology Department, Army	Role of ascorbic acid supplement in reducing the oxidative stress, anemia and	536,628

S. No.	Principle Investigator	Project Title	Cost (Rs.)
19	Dr. Rabia Hussain, Department of Pathology and Microbiology, The Aga Khan University, Karachi	nology and Microbiology, The Aga of disease development in exposed house	
20	Dr. Junaid Sarfraz Khan, Professor, University of Health Sciences, Lahore	To determine the relationship of awards obtained by students in the multiple choice questions and the short essay question components of theory examination in the undergraduate years and the effectiveness of each in the evaluation process	277,180
21	Dr. Shakila Mushtaq Department of Zoology and Fisheries, University of Agriculture, Faisalabad.	Isolation, identification and characterization of useful venom components of a few commonly found spider species form the citrus orchard of uaf and evaluation of antimicrobial activity ld50 on arthropods	1,461,425
22	Dr. M. Jalaluddin, Department of Agriculture, University of Karachi	Utilization of mycorrhizal biotechnology for biological phosphorus fixation and biological control of root diseases in sunflower	1,439,735
23	Dr. Raheel Qamar, Chairman, Department of Bio Sciences, COMSATS Institute of Information Technology, Islamabad	The molecular basis of familial high blood cholesterol in select families	5,210,160
24	Dr. Shahida Hasnain, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore	Identification, characterization of drug resistant e. Coil and its treatment: a perspective of novel antibacterial agents	1,871,000
25	Dr. M. Mazhar Hussain, Head of Physiology Department, Army Medical College, NUST	Effect of ascorbic acid and alpha tocopherol supplement on immune status of rats in chronic stress	1,005,787
26	Dr. Muhammad Sarwar Khan, Chairman, Department of Clinical Medicine and Surgery, University of Veterinary and Animal Sciences, Lahore	Epidemiology of major causes of diarrheal disease of cattle and buffalo calves	886333
27	Dr. Zahid Mahmood, Director, Department of Clinical Psychology Unit, Government College University, Lahore	Parent-child relationship: attachment styles parenting rearing and children behavioural problems	2,099,645
28	Dr. Ismat Beg, Centre for Advanced Studies in Mathematics, Lahore University of Management Sciences	Fixed point theory and its application	678,855
29	Dr. Musa Kaleem Bloach, Department of Chemistry, Gomal University, D. I. Khan	Investigating the interactions of water soluble polymers with surfactants	1,231,000

S. No.	Principle Investigator	Project Title	Cost (Rs.)
30	Dr. Hafeez Naeem Asghar Choudhary, Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad	Phytoremediation of polycyclic aromatic hydrocarbons in association with microorganisms containing acc-deanubase enzyme	3,055,920
31	Dr. Umer Farooq, Department of Environmental Sciences, COMSATS Institute of Information Technology, Abbottabad	Isolation, structure elucidation and biological activity of some medicinal belonging to the family lamiaceae and compositae	1,417,310
32	Dr. Muhammad Qasim, Associate Professor, Institute of Horticultural Sciences, University of Agriculture, Faisalabad	Production protocol of gladiolus corms based on conventional and micropropagation techniques	3,030,800
33	Dr. Khushi Muhammad Chairman Department of Microbiology, University of Veterinary and Animal Sciences, Lahore	Isolation and molecular characterization of Shiga toxin producing E Coli 0157	2,000,220
34	Dr. Viqar Uddin Ahmed, Department of Chemistry, HEJ Research Institute, University of Karachi	Isolation, structure elucidation and biological activity of the chemical constituents of some medicinal plants of Malaysia	2,900,110
35	Dr. Salim Ur Rehman, Institute of Food Science and Technology, University of Agriculture, Faisalabad	Development, characterization and shelf life optimization of nutrient dense fruit bar for school going children	4,570,620
36	Dr. Nuruddin Muhammad, Department of Obstetrics and Gynecology, The Aga Khan University, Karachi	A novel approach to noninvasive parental diagnosis of Fetal rhesus D status in Pakistan by isolating cell-free Fetal DNA From maternal plasma	696,100
37	Dr. Muhammad Iqbal, Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad.	Determination of carbon sequestration and NO3 leaching under different tillage system and dairy manure levels in maize (Zea Mays I.) and wheat (Triticum Aestiyum I.)	
38	Dr. Asif Tanveer, Department of Agronomy, University of Agriculture, Faisalabad	Studies into biology, economic threshold	
39	Dr. Muhammad Zamir Ahmad, Supervisor, Department of Biochemistry, University of Health Sciences, Lahore	Correlation of serum ferritin and serum transferrin receptor/ ferritin ration with oxidized low density lipoproteins in ischemic heart disease	278,799
40	Dr. Viqar Uddin Ahmed, HEJ Research Institute of Chemistry, University of Karachi	Isolation structural elucidation and biological activity of the chemical constituents of medicinally important plants of Pakistan	2,738,380
41	Dr. Sohail Ahmed, Animal Breeding	Determining getation length and its	2,620,853

S. No.	Principle Investigator	Project Title	Cost (Rs.)
42	Dr. Shiekh Saeed Ahmad, Department of Environmental Sciences, Fatima Jinnah Women University, Rawalpindi	Design and development of gis- based decision support system for the forecasting of real threat of ground level ozone (O3) to the sustainability of agro-ecosystem in rural agriculture areas of Rawalpindi and Islamabad	1,723,800
43	Dr. Muhammad Sajid Nadeem, Department of Zoology, University of Arid Agriculture, Rawalpindi	Repercussion of depletions in vulture population on the ecology of the Potohar region	2,472,480
44	Dr. Muhammad Jalal Arif, Department of Entomology, University of Agriculture, Faisalabad	Systematic, biological, ecological studies and management of cotton mealy bug	1,254,294
45	Dr. M Ata ur Rehman, Institute of Biotechnology and Genetic Engineering, University of Karachi	Studies on proteins involved in duodenal iron trafficking in iron deficiency anemia	1,373,000
46	Dr. Muhammad Salim, Department of Zoology and Fisheries, University of Agriculture, Faisalabad	Efficiency of phytase on apparent nutrient digestibility of plant by-products fed to labeo rohita	3,463,000
47	Dr. Rukhsana Hasan, Assistant Professor, Department of Gender Studies, Fatima Jinnah Women University, Rawalpindi	Motivational orientation towards work, need achievement and perceived social support among Pakistani female entrepreneurs in Attock district	428,039
48	Dr. Gul Majid Khan, Dean, Faculty of Pharmacy, Gomal University, D. I. Khan	Extraction, isolation and investigation of some indigenous natural products for their anti-leishmanial activity	1,178,000
49	Dr. Makhdoom Abdul Jabbar, Department of Food and Nutrition, University of Veterinary and Animal Sciences, Lahore	Effect of protein supplements of varying degradability on milk production composition and blood metabolites in niliravi buffalos	1,064,862
50	Dr. Muhammad Ashfaq, Foreign Professor Department of Plant Biotechnology, National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad	Molecular basis of insecticidal resistance and estimation of insecticide resistance allele frequency in cotton bollworm population in Pakistan	1,633,020
51	Dr. Anisa Qamar, Department of Physics, University of Peshawar.	Study of the effects of dust contamination on non-linear itg and titg modes	1,137,172
52	Dr. Atta ur Rehman, Institute of Biotechnology and Genetic Engineering, University of Karachi	Role of methylglyoxal and its metabolites interleukins and tumour necrosis factor in development of diabetes and diabetic complications	715,735
53	Dr. M. Nazr ul Islam, Foreign Professor, Head of Politics and International Relations, International Islamic University, Islamabad	Parliamentary committees in Pakistan and Bangladesh, a comparative analysis	863,535

S. No.	Principle Investigator	Project Title	Cost (Rs.)
54	Dr. Mehmood Akhter Kayani, Department of Biosciences, COMSATS Institute of Information Technology, Islamabad	Genetic analysis of KISS-1 and KA1-1 genes	1,918,176
55	Dr. Riffat Naseem Malik, Department of Plant Sciences, Quaid-i-Azam University, Islamabad	Ecological impact assessment of selected wetlands of Pakistan	3,700,152
56	Dr. Abdul Nasir Khalid, Associate Professor, Department of Botany, University of the Punjab, Lahore	Biodiversity of mushrooms and ectomycorrhizas from Himalayan moist temperate forests of Pakistan	3,659,765
57	Dr. Nikhat Ahmed Siddiqui, Department of biochemistry, University of Karachi	Expression proteomics: application in schizophenia and alzheimer's disease	1,401,600
58	Dr. Muhammad Shahid Khalil, Department of Mechanical Engineering, University of Engineering and Technology, Taxila	Development Of Human Resource And Wind Energy Expertise at UET Taxila	4,953,058
59	Dr. Muhammad Javed Zaki, Department of Botany, University of Karachi	Characterization of nematicidal bacillus thuringiensis and its application for the control of root-knot nematodes in vegetable crops	1,002,455
60	Dr. Saifullah, Department of Plant Pathology, KPK Agriculture University, Peshawar	Management Of root knot nematodes with turmeric (Curcuma Longa) as phytobiocide	1,660,560
61	Dr. Firdaus e Bareen, Department of Botany, University of the Punjab, Lahore	Role of plants and associated resistant fungi in metal uptake from tannery sludge and solid waste	3,796,380
62	Dr. Muhammad Yaseen, Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad	Effect of calcium carbide dependent release of achetylene and ethylene on nitrification in soil to improve nitrogen use efficiency and yield of vegetables	2,754,000
63	Dr. Waseem Ahmed, Department of Oral Surgery, Armed Forces Institute of Dentistry, NUST	A comparison between titanium and resorbable plates For fixation of mandiblar fractures: A prospective study	713,740
64	Dr. Abdul Rashid, Department of Mathematics, Gomal University, D. I. Khan	Stability and convergence of fourier pseudospectral methods for generalized zakharov equations	128,520
65	Dr. Anila Jaleel, Department of Biochemistry, Ziauddin University, Karachi	Study on adipcytokines in obese children with and without type 1 diabetes	776,303
66	Dr. Ijaz Shafi Gilani, Department of Politics and International Relations, International Islamic University, Islamabad	Business and Politics in the Muslim World	5,413,140
67	Dr. Sohail Ahmed, Department of	Management of citrus leaf miner	1,555,709

S. No.	Principle Investigator	Project Title	Cost (Rs.)
68	Dr. Muhammad Ashfaq, Chairman, Department of Agriculture Entomology, University of Agriculture, Faisalabad	Sustainable management of insect pests of rice crop with special reference to biocontrol agents and bio-rational insecticides	872,655
69	Dr. Amtul Jamil Sami, Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore	Application of recombinant DNA derived somatotropin in farm animals for increase in milk and meat production	2,262,360
70	Dr. Muhammad Iqbal Choudhary, HEJ Research Institute of Chemistry, University of Karachi	Development of new antiviral and anticancer steroids by combinatorial synthesis and high-through put biological screening- a new approach to drug discovery	1,990,000
71	Dr. Sabira Begum, HEJ Research Institute of Chemistry, University of Karachi	Search for new biologically active constituents from some medicinally significant plants	747,000
72	Dr. Ehsan Ullah Khan, Department of Physics, COMSATS Institute of Information Technology, Islamabad	Formation and characterization of ultra- shallow junctions for the future generations of cmos nano-electronics	4,234,918

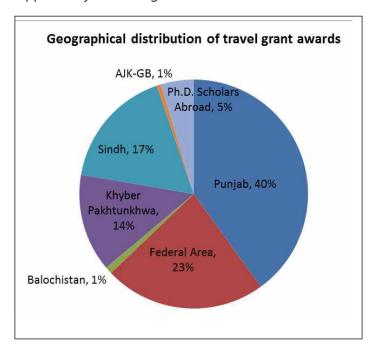
Travel Grants for Pakistani Researchers

R&D Division provides travel grant to Pakistani researchers, university faculty members, university staff, and the PhD scholars from Pakistani public and private sector universities and the degree awarding institutions for presentation of their research papers and for gaining exposure with academia in the relevant field of education.

This programme of HEC helps in boosting research activities in the public and private sector universities and the degree awarding institutions of Pakistan. It offers opportunity for sharing research outcome at national and

international forums, which contributes towards personal development of Pakistani research community, resulting in an upsurge in the research activity in Pakistani universities.

During the FY 2011-12, HEC considered a total of 1849 travel grant requests, while 1032 cases were approved, out of which 183 cases were withdrawn by the applicants. The 843 researchers proceeded to attend seminar, conferences and symposium. The total expenditure incurred in this regard was Rs. 128.024 million. The geographical distribution of travel grant is given below. The statistics shows that major numbers of grants were awarded to the faculty members from Punjab and Federal Areas. This is in close proximity with the number of universities and faculty members in these regions.



A comparison of last three years shows increasing interest of the faculty members in the travel grant programme and number of beneficiaries is increasing yearly.

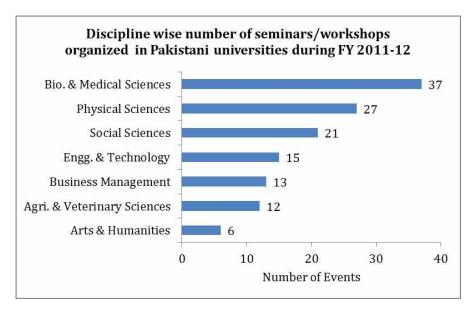
No. of Applications	FY 2009-10	FY 2010-11	FY 2011-12
Received	1200	1635	1849
Approved	817	986	843
Approved Cost	Rs. 125.580 m	Rs. 194.438	Rs. 143,590

Grants to Organize Seminars, Conferences and Workshops

HEC encourages Pakistani universities to display their academic achievements at national/international forums. To this end, the HEC provides financial support to public, and approved for public funding private sector universities, and the DAIs for organizing seminars/conferences/workshops, etc. The universities are encouraged to host national/international level events so as to afford learning opportunities for the indigenous Pakistani researcher community. This endeavour serves to close the gap between the learning opportunities for the researchers who are geographically distributed, helping them keep abreast of the contemporary research. Such seminars and conferences provide a forum for university-industry interaction as well. During the FY 2011-12, the HEC approved 131 seminars/conferences/workshops, and sanctioned to a total of Rs. 66.35 million. The statistical analysis of the seminars/conferences supported, based upon the geographical distribution is as under:

Region	FY 2009-10	FY 2010-11	FY 2011-12
Punjab	30	49	41
Federal Area	11	20	34
Sindh	20	20	32
Khyber Pakhtunkhwa	13	13	20
Balochistan	1	0	1
AJK – Gilgit Baltistan	2	2	2
Total	77	105	131

The discipline-wise number of conference, seminars and workshops organized during FY 2011-12 are given below. The highest number of events was organized in biological and medical sciences.



Sabbatical Leave Fellowship Programme

The programme provides funding for the senior faculty members (professors and associate professors) of the public sector universities and private universities eligible for private funding as well as employees of equivalent grade of R&D institutions. This programme enables them to pursue their scholarly interests and enhance their professional growth so that they may present themselves with renowned vigor, perspective and insight at pedagogical and research forums. Under this programme, the faculty members at the levels of professors and associate professors and employees of equivalent grade of R&D institutions availed the Sabbatical Leave foreign fellowship award for a period of three to six months and a local fellowship for a period of six to nine months. The following faculty members availed the above mentioned fellowship during 2011-12.

S. No.	Name	Department and	Host Professor and	Topic of Research
		Parent University	University	_
1	Dr. Farmanullah Khan	Department of Soil and Environmental Sciences, KPK Agriculture University, Peshawar	Prof. Dr. Weijun Zhou, Institute of Crop Sciences, College of Agriculture and Biotechnology, Hongzhou Zheijiang University, China	Fertility management of eroded lands
2	Dr. Naghmana Rashid	Department of Chemistry, Allama Iqbal Open University Islamabad	Dr. Tibor Kurtan, Department of Chemistry, University of Debrecen, Hungary	Enantioselective syntheses of warfarin analogues and determination of their absolute configuration by circular dichroism
3	Dr. Qanbar Abbasi	Department of Mathematics, CIIT, Islamabad	Prof. Linsheng Yin, Department of Mathematics, Tsinghua University, Beijing, China	Central decomposition of finite dimensional nilpotent lie algebras
4	Dr. Ghulam Hussain Abro	Department of Entomology, Faculty of Crop Protection, Sindh Agricultural University, Tandojam	Prof. Dr. A. M. Shelton, Department of Entomology, Cornell University, New York	Management of plutella xylostella on organically grown cabbage
5	Dr. Muhammad Zaheer Khan	Department of Zoology, University of Karachi	Department of Biological Sciences, Simon Fraser University Burnaby, Canada	Extent of commercially important fish & mussel species contaminated by edcs in pakistan, assessment through in-vitro yes test
6	Dr. Muhammad Yaqoob	Department of Chemistry, University of Balochistan, Quetta	Paul J. Worsfold, Professor of Analytical Chemistry, School of Geography, Earth and Environment Sciences, University of Plymouth, UK	Determination in macro an micro co-nutrients in natural waters and sediments using flow injection liquid-waveguide-capillary cell based on chemiluminescenæ/spectrophotometric detection
7	Dr. Asif Ali	Department of Mathematics, Quaid- i-Azam University, Islamabad	Dr. John Cossey, Department of Mathematics, Australian National University, Canberra	Maximal subsets of pairwise non-commuting elements in finite groups
8	Dr. Sardar Khan	Department of Environmental Sciences, University of Peshawar	Dr. John YG-Zhu, Institute of Urban Environment, Chinese Academy of Sciences, China	Bioremediation of polycyclic aromatic hydrocarbons contaminated soils and bacterial functional genomes

S. No.	Name	Department and	Host Professor and	Topic of Research
		Parent University	University	
9	Dr. Zeba Haque	Department of Biochemistry, Dow University of Health Sciences, Karachi	Dr. Darakhshan J. Haleem, Dean, Faculty of Sciences and Professor of Biochemistry, University of Karachi	Biochemical loop relating stress and dietary regulations with obesity
10	Dr. Amir Zaman	Department of Agronomy, KPK Agricultural University, Peshawar	Dr. Weijun Zhou, Chairman, Department of Agronomy and Plant Breeding, Zhejiang University, China	Enhancing N use of efficiency of urea through use of N inhibitor
11	Dr. Muhammad Saleem	Department of Chemistry, Islamia University of Bahawalpur	Prof. Dr. Herald Gross, Institute of Pharmaceutical Biology, University of Bonn, Germany	Isolation and characterization of endophytic fungal metabolites to search new antibiotics
12	Dr. Sohail Nadeem	Department of Mathematics, Quaid- i-Azam University, Islamabad	Dr. Jin Keun Seo, Department of Computational Science and Engineering, Younsei University, South Korea	Peristaltic flows of non- Newtonian fluids with different geometrics
13	Dr. Abdul Hameed	Department of Horticulture, University of AJK	Prof. Jon Wakefield, Department of Statistics, University of Washington	Use of molecular markers for characterization of brassica Col. crops germ plasm from northern Pakistan
14	Dr. Qasim Bughio	Pro-Vice Chancellor, University of Sindh, Jamshoro	Dr. Stephen R. Pearce, Department of Plant Molecular Biology, School of Life Sciences, University of Sussex, UK	Determining the status and use of various languages spoken in multi lingual society of Pakistan
15	Dr. Muhammad Shahbaz	Department of Computer Sciences, UET, Lahore	Dr. Aziz Guergachi, School of Information Technology Management, Ryerson University, Toronto, Canada	Sentiment analysis of unstructured appraisals using lexical resources and text mining
16	Dr. Saleem Farooq Shaukat	Department of Electrical Engineering, CIIT, Lahore	Prof. S McArthur, Electronics and Electrical Engineering Department, University of Strathclyde, Glasgow	Development of an open source gui based simulation toolkit in optical fiber communication
17	Dr. Masood Ahmed Siddiqui	Department of Chemistry, University of Balochistan	Dr. William B. Whitman, University of Georgia, Athens	Sequencing the unidentified genomes of organisms using the 454 sequencing technology and its application in finding novel enzymes

Provision of Sample Testing Facilities

HEC provides financial support to researchers for sample testing facilities. Under this programme, spectroscopic, analytical, chromatographic and other services are provided to researchers working in different public sector universities on cost plus basis, which is paid by the HEC. Through this programme the institutions with instrumentation facilities get financial resources to optimally utilize their instruments. The main object of this programme is to overcome the acute shortage of sophisticated scientific equipment in universities and

research laboratories of the country which acts as an impediment to the development of scientific research in Pakistan. Due to the high cost of acquiring and maintaining modern tools of research, this is a unique programme of HEC for sharing the scientific instrumentation facilities which enables the scientific community to have access to sophisticated equipment while providing a source of funding to those institutions which make their instruments available. In 2011-12, 556 research scholars from more than 40 public sector institutes of Pakistan have been facilitated.

Grant for Repair and Maintenance of Laboratory Equipment

A programme to provide funds to public sector universities/degree awarding institutions for repair, maintenance, purchase of spare parts and up-gradation of expensive scientific laboratory equipment lying inoperative for want of repair/spare parts. The objective of this programme is to facilitates the public sector universities/Degree Awarding Institutions for the repair, maintenance and up-gradation of laboratory equipment.

Under the programme, Rs. 11.364 million was provided for repair and maintenance of more than 58 scientific equipment in public sector universities as per following detail:

S. No.	Name and Designation	Department and University/Institute	Equipment	Cost Incurred (Rs.)
1.	Dr. Naveed Akhtar, Chairman	Department of Pharmacy, Islamia University of Bahawalpur	HP-TLC CAMAG	540,000
2.	Dr. Nisar ur Rehman, Chairman	Department of Pharmacy, Islamia University of Bahawalpur	HPIC Series-200	185,000
3.	Dr. Nisar ur Rehman, Chairman	Department of Pharmacy, Islamia University of Bahawalpur	Automated Dissolution Tester	367,000
4.	Dr. Nisar ur Rehman, Chairman	Department of Pharmacy, Islamia University of Bahawalpur	High Performance Liquid Chromatography Mass Spectrometer (LC-MS)	380,000
5.	Prof. Dr. Yasin Iqbal, Principal Scientist	Department of Metallurgy and Material Engineering, NIBGE	E4991A Material Analyzer	302,742
6.	Dr. M. Kamran Azim, Assistant Professor	International Centre for Chemical and Biological Sciences, University of Karachi	Centrifuge	65,000
7.	Dr. Mazhar Iqbal, Principal Scientist	Department of Health Biotechnology Division, NIBGE, Faisalabad	LCMS/MS (Liquid Chromatograph-Mass Spectrometer)	170,404
8.	Dr. Naureen Aziz Qureshi, Dean	Department of Zoology, GCU Faisalabad	Gas Chromatography	128,700
9.	Dr. Naureen Aziz Qureshi, Dean	Department of Zoology, GCU Faisalabad	Atomic Absorption Spectrometer	292,500
10.	Dr. Samina Bano, Professor	Department of Biochemistry, University of Karachi	Shimadzu HPLC	950,000
11.	Dr. Tariq Yasin, Principal Scientist	Department of Metallurgy and Material Engineering, NIBGE	Differential Scanning Calorimeter	787,590
12.	Dr. Zafar Iqbal, Professor	Department of Pharmacy, University of Peshawar	UHPLC	945,108
13.	Dr. Qaiser M. Khan, Principal Scientist	National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad	Flame Photometer	62,500

S. No.	Name and Designation	Department and University/Institute	Equipment	Cost Incurred (Rs.)
14.	Dr. Abdul Hannan, Professor	Department of Microbiology, University of Health Sciences, Lahore	Autoclave	270,000
15.	Dr. Nazar Abbas Shah, Associate Professor,	Department of Physics, COMSATS Institute of Information Technology, Islamabad	Solar Cell Fabricator	1,000,000
16.	Dr. Sher Afgan, Assistant Professor	Department Aero and Astro, Institute of Space Technology, Islamabad	HP Design Jet Plotter	145,000
17.	Dr. Habib-ur- Rehman, Assistant Professor	Department of Botany, Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan	UV-Visible Double Beam Spectrophotometer	60,000
18.	Dr. Faisal Amin, Director	Department of Information Technology, University of Health Sciences, Lahore	OMR (Optical Mark Reader) Scanner	217,500
19.	Dr. Imran Hashmi, Assistant Professor	Institute of Environmental Sciences Engineering [ESE], NUST	Refrigerated Centrifuge	63,800
20.	Dr. Jawad Nazir, Assistant Professor	Department of Microbiology, University of Veterinary and Animal Sciences, Lahore	Refrigerated Centrifuge Machine	171,000
21.	Dr. M. Fida, Chairman	Department of Plant Breeding and Genetics, KPK Agriculture University, Peshawar	Growth Chamber	120,000
22.	Dr. M. Fida, Chairman	Department of Plant Breeding and Genetics, KPK Agriculture University, Peshawar	UV Spectrophotometer	160,000
23.	Dr. M. Fida, Chairman	Department of Plant Breeding and Genetics, KPK Agriculture University, Peshawar	Laboratory Centrifuge	100,000
24.	Dr. M. Fida, Chairman	Department of Plant Breeding and Genetics, KPK Agriculture University, Peshawar	Autoclave	75,000
25.	Dr. M. Fida, Chairman	Department of Plant Breeding and Genetics, KPK Agriculture University, Peshawar	Laminar Air Flow Cabinet	130,000
26.	Dr. M. Jahangir, Assistant Professor	Department of Chemistry, GCU, Lahore	HPLC LC-20AT with Diode Array Detector SPD-M20A	483,810
27.	Dr. Saleha Riffat, Deputy Director	Department of Bioequivalence Study Centre, University of Veterinary and Animal Sciences, Lahore	Atomic Absorption Spectrometer	670,567
28.	Dr. M. Umair Arshad, Assistant Professor	Institute of Home and Food Sciences, GCU, Faisalabad	Flame Photometer	255,000
29.	Dr. M. Umair Arshad, Assistant Professor	Institute of Home and Food Sciences, GCU, Faisalabad	Spectrophotometer	265,000
30.	Dr. Riffat Ara Jamal,	Department of Chemistry,	Rotary Evaporator	93,600

Patent Filing

HEC has developed a programme which allows for submission of research ideas, published papers, thesis synopsis and other such material which describes the potential invention for evaluation for patentability. HEC facilitates the evaluation of patent before filing the case for registration. The purpose of this evaluation is simply to determine patentability of the invention. In case an invention is determined to be patentable, the inventor will be encouraged to file for an international patent. To make sure that this process is completely confidential, the inventor is required to create an account to which only he/she has access. The inventor will also be able to track the progress on the evaluation of his/her ideas as well as the recommendations to proceed with the filing of international patents on his/her account page.

Should it be decided that a patent will be filed; patent attorneys will contact the inventor to complete this process where the cost of filing patent will be paid by HEC. However the patent issuance fee and its maintenance fee will be the responsibility of PI/university.

Securing an international patent serves two purposes; first, it allows the inventor, his/her institution and his/her country to benefit economically from his/her efforts and secondly, mankind benefits from it when a useful application or a product results from the invention. Scientists worldwide make significant contributions to economic growth through such inventions and replication of this practice is intended in Pakistan through this programme. During the year 2011-12, 5 patents have been filed.

S. No.	Inventor	University	Title of Invention
1	Dr. Saqib Ali	Centre for Advanced Studies in	Receiver side combining LINC
		Engineering (CASE)	amplifier
2	Dr. Saifullah Sahir	HEJ Research Institute of Chemistry,	Anticancer compound
		University of Karachi	
3	Dr. Saifullah Sahir	HEJ Research Institute of Chemistry,	Anti-inflammatory compound
		University of Karachi	
4	Dr. Muhammad Akhyar	Department of Chemistry, GCU, Lahore	Analytical Grade Salt
	Farrukh		
5	Prof. Dr. Atta-ur-	HEJ Research Institute of Chemistry,	New Formulation Physali minima
	Rahman	University of Karachi	against Cutaneous Leishmaniasis

Pak-US Science and Technology Collaboration

HEC is partner of academic and research framework with United States. In 2003, the Ministry of Science and Technology of the Government of Pakistan and the United States Department of State signed a comprehensive Science and Technology Cooperation Agreement that established a framework to increase cooperation in science, technology, engineering and education for mutual benefit and peaceful purposes between the science and education communities in both countries. In 2005, the United States Agency for International Development (USAID) joined with the Ministry of Science and Technology (MoST) and HEC of Pakistan to support the joint Pakistan-US Science and Technology Cooperation Programme. Beginning in 2008, the United States Department of State joined USAID as US co-sponsor of the programme. This programme, which is being implemented by the US National Academy of Sciences on the US side, is intended to increase the strength and breadth of cooperation and linkages between Pakistan scientists and institutions with counterparts in the United States.

Four phases of the programme have been financed out of Public Sector Development Programme (PSDP). The details of the programme is given below:

Project Phase	No. of Projects	HEC Contribution	USA Contribution	MOST Contribution	Total US\$
Titase	Tiojects	US\$	US\$	US\$	0.5\$
Phase-I	08	2.51	2.00	0.5	5.01
Phase-II	09	2.08	2.00	0.5	4.58
Phase-III	14	3.40	3.20	0.5	7.1
Phase-IV	14	4.50	5.00	0.5	10.00

Current status of Pak-US programme is given below:

Programme Phase	Current Status
Phase-I	All eight research projects have been completed successfully
(2005-2008)	
Phase-II	Out of nine, seven research projects have been completed. The remaining two projects will be
(2006-2009)	completed in September 2012
Phase-III	Out of 14, seven projects have been completed. Third installment of seven projects has been
(2007-2010)	released
Phase-IV	First instalment has been released and second installment cases are in process
(2009-2014)	
Bio Engagement	1st instalment of six research projects has been released and 2nd installment cases in process
Program	

The Phase V of Pak US Joint Academic and Research Programme will be announced in September 2012. Keeping in mind the success of previous phases of the Pak US programme, it is expected that a number of good research projects are expected to be approved under the new Phase.

HEC-British Council Strategic Partnerships in Research and Education

In order to facilitate research and development in the higher education sector and to enhance the research and training capacity of HEIs in Pakistan, International Strategic Partnership in Research and Education (INSPIRE) Programme was launched in collaboration with British Council. The core objective of INSPIRE Strategic Partnership is to internationalize the activities of the UK and Pakistan partners and to encourage research of an international quality which are strategically relevant to Pakistan and the UK.

Applications were invited from UK and Pakistan universities that ideally meet the criteria. After scrutiny, 120 applications were found eligible for peer review. Based on the results received from subject experts from both Pakistan and UK, 16 collaborative partnerships between Pakistani and British universities were approved for funding by the INSPIRE board which included members from HEC and British Council. Funding for these partnerships will be available for a maximum of three years. First year's funding was released May-June 2012 to the approved projects. The following is the list of approved projects under INSPIRE Programme:

S. No.	Proposal	British Partner	Pakistani Counterpart
1.	Cutaneous leishmaniasis in Khyber Pakhtunkhwa (Pakistan): Assessment of antileisshmanial and antimicrotubule properties of synthetic naphthoquinone derivatives in vitro.	London School of Hygiene and Tropical Medicine	University of Peshawar

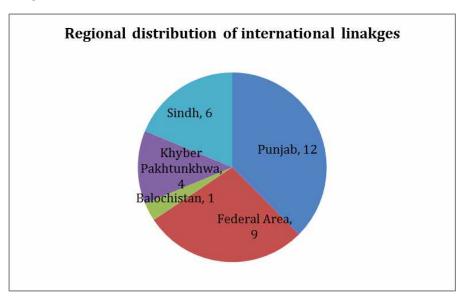
S. No.	Proposal	British Partner	Pakistani Counterpart
2.	Use of geo-synthetic materials technology for provision of clean well water	Institute for Materials Research and Innovation (CMRI), University of Bolton	Textile Institute of Pakistan (TIP), Karachi
3.	Developing strategies to monitor Indus River Pollution in Mianwali region of Pakistan by using fish as a potential bio-indicator	University of Newcastle, UK	Government College University, Faisalabad
4.	Impact of environmental pollutants on fish and fisheries of Punjab, Pakistan.	University of Aberdeen, UK	University of Veterinary and Animal Sciences, Lahore
5.	Developing best practices in learning and teaching in medical education: a collaboration between the University of Health Sciences, Lahore (UHS) and the University of Liverpool (UoL)	University of Liverpool	University of Health Sciences
6.	Wastewater reclamation and reuse at bench scale using advanced biological treatment technologies	University of Oxford	National University of Sciences and Technology
7.	Lancashire to Lahore, exchange to develop cultural understanding	University of Central Lancashire	Beaconhouse National University
8.	Women empowerment and the crisis of good governance in Pakistan (A study of South Punjab 2001-2009)	Royal Holloway College University of London, UK	Bahauddin Zakariya University, Multan
9.	Development of bioinformatics research, teaching and infrastructure at the University of Sindh.	University of Essex, UK	University of Sindh, Jamshoro
10.	Development of a universal microsensor for the measurement of performance of power and energy systems adoption of Cambridge university's specialist undergraduate and graduate level engineering courses for teaching at Air University, Pakistan	University of Cambridge	Air University
11.	Co-combustion of Pakistani coal and biomass in pilot scale combustors	The University of Leeds	Pakistan Institute of Engineering and Applied Sciences
12.	The Bradford/Mirpur connection and the global citizenship of its young People: A partnership development research project	School of Lifelong Education and Development, University of Bradford	Mirpur University of Science and Technology (MUST) and University of Azad Jammu and Kashmir
13.	To develop a strategic partnership for knowledge exchange and research on sustainable entrepreneurship and innovation North West Pakistan	University of Southampton	Institute of Management Sciences, Peshawar

S. No.	Proposal	British Partner	Pakistani Counterpart
14.	Migration, education and development	University of Sussex, UK	Quaid-i-Azam University, Bahauddin Zakariya University, Multan University of Peshawar
15.	Anxiety among adolescents in Pakistan: From epidemiology to prevention	Roehampton University	Fatima Jinnah Women University
16.	Building of indigenous capabilities for Thar coal development	University of Nottingham UK	Mehran University of Engineering and Technology, Jamshoro

International Linkages of Pakistani Universities with Foreign Universities

The university-to-university academic linkages lend diversity to research and education. To this end, the HEC supports establishment of academic linkages of Pakistani universities with foreign universities. Under this project, researchers, faculty members, and PhD scholars at Pakistani public sector universities have been extended opportunities to work in collaboration with the foreign scholars.

A total number of 32 academic linkages have been established between Pakistani and foreign universities. The total cost of the project is Rs. 308.772 million. The geographic distribution of linkages established by Pakistani Universities with foreign universities is as under:



Under this project, collaborative research opportunities are explored and materialized by the Pakistani academicians and the faculty from collaborating foreign universities. The project in addition extends opportunities of Faculty Visits, and Joint/Split PhD programmes between the collaborating local and foreign universities. This project is a comprehensive multi-faceted model, which has led to establishment of lasting and productive academic association. Detail of international linkages is given below:

S. No.	Pakistani University	Foreign University	Cost (Rs. in million)
1.	International Islamic University, Islamabad	Kent State University, Ohio USA	7.71
2.	Balochistan University of Information Technology, Engineering and Management Sciences, Quetta	University of Glasgow, UK	7.57
3.	University of Punjab, Lahore	University of Sterling, Scotland	1.4108
4.	Gomal University, D. I. Khan	University of Glasgow, UK	3.657
5.	Bahauddin Zakariya University, Multan	La Trobe University, Australia	5.378
6.	University of Engineering and Technology, Taxila	Queen's University, Belfast Northern Ireland, UK	3.54
7.	Liaquat University of Medical and Health Sciences, Jamshoro	Karolinska Institute, Huddinge University, Stockholm, Sweden University Hospital, Nottingham	0.9
8.	University of Sargodha, Sargodha	Friedrichschiller University of Jena, Germany	4.912
9.	COMSATS Institute of Information Technology, Islamabad	Texas A&M University, College Station, Texas USA	16.91
10.	National University of Modern Languages, Islamabad	Utrecht University, Netherlands	15.41
11.	NWFP Agriculture University Peshawar	 University of Illinois Urbana, Champaign University of California, Davis University of Bonn, Germany 	16.91
12.	University of Engineering and Technology, Lahore	Queen Mary University of London UK	10.41
13.	Mehran University of Engineering and Technology, Jamshoro	 University of Leeds, UK Colorado State University, USA University of Nottingham, UK Montan University of Leoben, Austria University of Illinois, USA Kyushu Institute of Tech, Japan 	8.91
14.	Sindh Agriculture University, Tandojam	Washington State University, USA University of Wales Bangor, UK Timiryazey Agriculture Academy, Moscow, Russia	9.47
15.	Kohat University of Science and Technology, Kohat	University of Tsukuba, Japan	15.41
16.	University of Engineering and Technology, Peshawar	University of Illinois at Urbana Champaign, Urbana, USA	8.972
17.	Fatimah Jinnah Women University, Rawalpindi	Indiana University, Bloomington	4.18
18.	University of Gujrat	Salzburg University, Austria	11.91
19.	Pakistan Institute of Engineering and Applied Sciences, Islamabad	Harvard University, USA	12.71
20.	University of Karachi	University of Tsukuba, Japan	12.71
21.	National University of Sciences and Technology, Islamabad	University of Witwatersland Wits, Johanesburg, South Africa	0.099
22.	KPK Agriculture University, Peshawar	University of Queensland, Australia	12.71
23.	Pakistan Institute of Development	Harvard University, USA	5

S. No.	Pakistani University	Foreign University	Cost (Rs. in million)
24.	Quaid-i-Azam University, Islamabad	University of Central Florida, USA	6.5
25.	National Centre of Excellence in Molecular Biology, Lahore	Urbana-Champaign, Urbana, USA	13.225
26.	University of Agriculture, Faisalabad	University of California, USA	9.056
27.	Institute for Sustainable Halophyte Utilization, University of Karachi	Gottfried Wilhelm Leibniz University, Herrenhauser, Germany	15.11
28.	Department of Electronics, Quaid-i-Azam University	University of Michigan-Dearborn, USA	4.418
29.	HEJ Research Institute, University of Karachi	University of Paderborn, Germany	6.53
30.	Department of Chemistry, Quaid-i-Azam University, Islamabad	University of Rostock, Germany	2.167
31.	Department of Electronics, Quaid-i-Azam University, Islamabad	Pennsylvania State University, USA	2.17

Linkages with Industry

University-Industry-Technology Support Programme

The significance of university-industry partnerships has become very prominent on the agenda of higher education policy-making, at both the national and institutional levels. Within the context of knowledge intensive economies, governments are increasingly aware of the importance of higher education institutions as strategic actors in both national and regional economic development, given their potential to upgrade skills and knowledge of the labour force and contribute towards producing and processing innovation through technology transfer. Under the programme, HEC allocates funds more selectively, both with more definite purposes and attached to specified outcomes. As part of this trend more incentive schemes, such as matching funds and seed money for the development of university-industry linkages, both in teaching and research are being provided. Changing expectations of the economic pay-off of research and development (R&D) results, put to the market, have also considerably modified the attitudes of stakeholders, such as institutional managers and academic staff, towards collaboration with industrial partners, particularly in fields such as biotechnology, medicine and software development. Given the potential of such linkages to generate new forms of funding, which in some cases can be considerable, higher education institutions themselves are much more open to collaborating with industry and business than in the past. Following is the list of proposals received, approved, in progress and completed during the FY 2011-12:

	UITPS Projects Received in 2011-12 and their Status					
S. No.	Title of Project	Executing Institution	Collaborating Industry	Cost (Rs. in million)	Status	
1.	Screening, isolation and characterization of active anticancer compounds from some selected plants of Pakistan	University of Agriculture, Faisalabad	Saffron Pharmaceuticals (Pvt.) Ltd 19 km, Sheikhupura Road, Faisalabad	6.871795	Approved	

	UITPS Projects Received in 2011-12 and their Status				
S. No.	Title of Project	Executing Institution	Collaborating Industry	Cost (Rs. in million)	Status
2.	Conversion of carbon dioxide/methanol to dimethyl ether (dme) over highly nanocrystalline modified catalyst	COMSATS Institute of Information Technology, Islamabad	ENAR Petrotech Services (Pvt.) Ltd Plot No. 7-B, Sector 7-A, Korangi Industrial Area, Karachi	5.1425	Approved
3.	Formulation and development of all six classes of antihypertensive medicines from indigenous medicinal plants of Pakistan	Federal Urdu University of Arts, Science and Technology, Karachi	Herbion Pakistan (Pvt) Limited Karachi	7.28077	Rejected
4.	Molecular and cellular toxicological exploration of pharmaceutics, medicinal plants, herbal products" under university industry technology support programme	University of Agriculture, Faisalabad	Saffron Pharmaceuticals (Pvt) Ltd, Sheikhupura Road, Faisalabad	6.0103	Rejected
5.	Development of electronic laboratory note book (eln) for biological and chemical experimentation	University of Engineering and Technology, Lahore	Northbay Solutions, Software Development Company	6.0000	Being Revised
		On-going UITSP Proje	cts during 2011-12		
S. No.	Title of Project	Executing Institution	Collaborating Industry	Cost (Rs. in million)	Status
1.	An innovative approach to recycle egg laying breeder stock and their performance comparison in the subsequent production cycle	University of Agriculture, Faisalabad	Bilal Poultry Enterprises, Arifwala- Pakpattan	2.00185	Approved (final utilization report is being revised)
2.	Development of tissue culture protocols and methodology for micro propagation of tea plant	COMSATS Institute of Information Technology, Islamabad	Khawaja Foods (Pvt.) Ltd, Muzaffarabad	10.071	Approved (Final report is awaited)

S. No.	Title of Project	Executing Institution	Collaborating Industry	Cost (Rs. in million)	Status
3.	Pilot scale production of microbial enzymes and their commercial viability as poultry feed supplement	Quaid-i-Azam University, Islamabad	Indus Pak Corporation, Suit #11, Central Plaza, Barkat Market, Lahore	5.607	Approved (1st annual report is awaited from PI)
4.	Hyper expression and production of thermostable pyhtase for poultry feed	University of Veterinary and Animal Sciences, Lahore	Hi-Tech Feeds (Pvt.) Ltd, 1-A, Shadman Chowk, Lahore	9.317	Approved (1st Installment has been issued)
5.	Screening, and characterization anticancer compounds from some local plants	University of Agriculture, Faisalabad	Saffron Pharmaceuticals (Pvt.) Ltd, 19 km, Sheikhupura Road, Faisalabad	6.871795	Approved (1st Installment has been issued)
6.	Conversion of carbon dioxide/methanol to dimethyl ether over highly nanocrystalline modified catalyst	COMSATS Institute of Information Technology, Islamabad	ENAR Petrotech Services (Pvt.) Ltd, Korangi Industrial Area, Karachi	5.1425	Approved (Agreement is being processed)
7.	"Development of electronic lab note book (eln) for biological and chemical experimentation"	University of Engineering and Technology, Lahore	Northbay Solutions, Software Development Company	6.0000	Being Revised
	UI	TSP Projects Comple	ted during 2011-12		
S. No.	Title of Project	Executing Institution	Collaborating Industry	Cost (Rs. in million)	Status
1.	Treatment of textile effluents by combination of ultrasonic cavitations and electrochemical oxidation	COMSATS Institute of Information Technology, Abbottabad	Haris Dyes and Chemicals, Faisalabad	4.215	Completed
2.	Design and Development of Electric Motor Cycle and 3- Wheeler Electric Mini Car	National University of Sciences and Technology, Islamabad	M/s Energen Pakistan, Energen Energy Generation, 216, S.I.T.E. Karachi	7.172	Completed





UITSP projects entitled 'Treatment of Textile Effluents by Combination of Ultrasonic Cavitation's and Electrochemical Oxidation' completed during 2011-12.





UITSP project entitled 'Design and Development of Electric Motor Cycle and 3 - Wheeler Electric Mini Car' completed in 2011-12.

Knowledge Exchange and Commercialization of Research

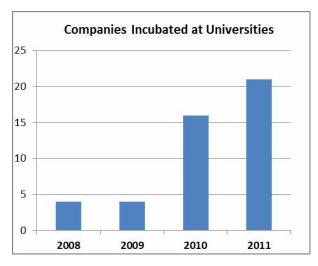
HEC Knowledge Exchange Programme

Knowledge Exchange refers to the role that universities can play in stimulating and contributing to innovation and social and economic growth of a country, in addition to their core missions of teaching and research. It is not only about commercialization of science through creation of spin offs and licenses but is much broader involving academics from all disciplines and functioning through a wide range of exchange mechanisms like collaborative research, community and business engagement and opening the doors of HEIs for outer world.

HEC has come into an agreement with the British Council to work mutually for the promotion of Knowledge Exchange in higher education sector. Through this collaboration various activities have been initiated including formulation of first five year knowledge exchange strategy, Training of offices of Research Innovation and Commercialization (ORICs) staff, leadership grants and Research links. Starting from June 2011, extensive briefing/training sessions for the Vice Chancellors, senior managers of ORICS and Business Incubator Centres and HEC management have been conducted targeted at sensitizing the academic community on tremendous benefits of knowledge exchange. Two meetings of Knowledge Exchange Steering Committee have also been held involving academia and business leaders to expand the role of HEIs in economy and community development.

Establishment of Business Incubation Centres

Business Incubation is a business support process that accelerates the successful development of start-up companies by providing new entrepreneurs with an array of targeted resources and services. The main goal of incubators is to produce successful firms that play a vital role in the development of economy. Incubators are also helpful to graduates to become entrepreneurs rather than an employee and it is also a source of job creation in the economy. HEC is emphasizing on establishment of BICs in Public Sector Universities to support researchers and young entrepreneur who are intended in developing promising early-stage business ventures. During the last one year two Business Incubation Centres were established at University of Veterinary and Animal Sciences and Sukkur IBA. Extensive Trainings on knowledge exchange and business plan competition has been conducted. A steering Committee on BICs has been established to revamp the role of BICs in entrepreneurship development. The Higher Education Entrepreneurship Policy is also being developed for spearheading the development of small and medium enterprises for employment generation and hence accelerating socio-economic development.



S. No.	Name of Company	Institution		
Already Graduated Companies				
1.	Turnotech (Pvt.) Ltd			
2.	Maalik Creative Engineer (Pvt) Ltd			
3.	Askoli (Pvt.) Ltd			
4.	Dual Matrix Corporation			
5.	WISSEN	National University of Sciences and Technology, Islamabad		
6.	SOMDATA			
7.	Kreative Arts			
8.	ID Technologies			
9.	Wood Bury Communications			
	Companies in Incubation			
1.	Tuna Code			
2.	Gilani Inc			
3.	Aviation MRO			
4.	NEMS	National University of Sciences and Technology, Islamabad		
5.	Health Care level 7 (HL7)			
6.	Geo Spat Tech			
7.	Sky Computing Solutions			
8.	M/s TS Technologies			
9.	Agilitron (Pvt.) Ltd			
10.	M/S ASM Solutions(Pvt.) Ltd			
11.	AAMSON Technologies (Pvt.) Ltd	COMSATS Institute of Information Technology, Islamabad		
12.	M/S XDASS			
13.	Mobi Care (UK Based)			
14.	Wood Bury Communications			
15.	M/s Sanna Laboratories, Faisalabad	University of Agriculture, Faisalabad		
16.	Roshan Enterprises, Bhalwal			

S. No.	Name of Company	Institution	
17.	Agrow (Pvt.) Ltd, Lahore		
18.	Agri. Tech. (Pvt.) Ltd, Multan		
19.	Amjad Brother Agri. Industries, Faisalabad		
20.	Abdul Samad and Company, Faisalabad		
21.	Ali Engineering Associates, Faisalabad		
22.	Seth Tufail and Co. (Pvt.) Ltd, Faisalabad		
23.	Adeel Sarfraz and Company, Faisalabad	University of Agriculture, Faisalabad	
24.	Gemmo Pharma		
25.	Ali Akbar Group, Lahore		
26.	Pak-China Enterprises, Lahore (Meer S. Bashirand Co.)		
27.	Cure MD Pak. (Pvt.) Ltd.		
28.	UM-Enterprises, Karachi		
29.	UAF-Tech. Co.		
30.	Bird Incubation		
31.	Fizan Communication	University of Veterinary and Animal Sciences, Lahore	
32.	Dairy Solution (Pvt.) Ltd		
33.	App Factors		
34.	Hartoon Den		
35.	Catalyst	University of Engineering and Technology, Peshawar	
36.	Tabeer	35.	
37.	Halul		

Office of Research, Innovation and Commercialization

HEC aims at developing sustainable, dynamic and internationally competitive research sector in Pakistan that makes a major contribution to economic prosperity, national well-being and the expansion and dissemination of knowledge. Due to collective and concerted effort, of HEC in coordination with the major stakeholders the quality and research output in HEIs of the country have shown tremendous improvements and Pakistan has been acknowledged as rising star by the international higher education community in a number of research disciplines.

In order to sustain the trend and to expand the horizon of research activities in HEIs while reaping the benefits of research in real term of community impact and research commercialization, HEC started facilitating universities to organize all research activities under a single umbrella of Offices of Research, Innovation & Commercialization (ORIC).

The ORICs provides strategic and operational support to the University's research activities programmes, and have principal role in facilitating the University's research and in transforming pure knowledge into products and production processes with the ultimate end in perspective that is community welfare as a whole.

During the FY 2011-12, training for the selected members of ORIC has been conducted in November 2011 on Knowledge Exchange activities (one day virtually through Video Conferencing on November 16, 2011 along with a one day in person at HEC



Islamabad on November 24, 2011. Another comprehensive five-day training for the Managers of the ORICs was organized by HEC at NUST Islamabad. During the reporting year, ORIC has been established in 18 institutions as listed below:

S. No.	University/Institution Name	Sector	Region
1.	The Aga Khan University, Karachi	Private	Sindh
2.	Bahria University, Islamabad	Public	Capital
3.	COMSATS Institute of Information Technology, Islamabad	Public	Capital
4.	Dow University of Health Sciences, Karachi	Public	Sindh
5.	Foundation University, Islamabad	Private	Capital
6.	Institute of Management Science, Peshawar	Public	KPK
7.	Institute of Space Technology, Islamabad	Public	Capital
8.	Lahore University of Management Sciences, Lahore	Private	Punjab
9.	National University of Sciences and Technology, Islamabad	Public	Capital
10.	Quaid-i-Azam University, Islamabad	Public	Capital
11.	Sukkur Institute of Business Administration, Sukkur	Public	Sindh
12.	University of Agriculture, Faisalabad	Public	Punjab
13.	University of Arid Agriculture, Rawalpindi	Public	Punjab
14.	University of Gujrat, Gujrat	Public	Punjab
15.	University of Sargodha, Sargodha	Public	Punjab
16.	University of the Punjab, Lahore	Public	Punjab
17.	University of Veterinary and Animal Sciences, Lahore	Public	Punjab
18.	University of Malakand	Public	KPK

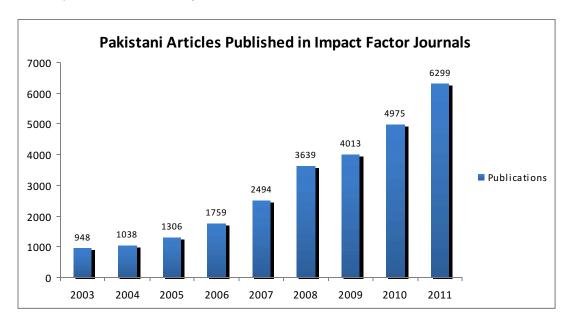
HEC's Outstanding Research Awards Series

The programme aims to recognize and reward the achievements of Pakistani researchers/scholars for research, innovation and publication in all fields of study. Under the programme, applications were invited from researchers/scholars from all over Pakistan for awards in 5 categories; 33 awards had been conferred in 2nd HEC's Outstanding Research Awards Ceremony, held at HEC Islamabad on October 17, 2011.

S. No.	Award Category	Value of Award	Number of Awards
1.	Best Research Paper	Rs. 50,000 per award	21
2.	Best Innovator	Rs. 100,000 per award	1
3.	Best Young Research Scholar	Rs. 150,000 per award	6
4.	Best Book Publication	Rs. 300,000 per award	3
5.	Life Time Academic Achievement	Rs. 500,000 per award	2

National Digital Library Programme

It has been almost eight years that National Digital Library Programme is contributing in the country's research output and accessibility to the latest research content. Since its inception, it has widespread impact on the research productivity of the country and that recognized by the article contributions in the highly acknowledged research journals. It is also linked with the provision of information resources delivered to each and every HEI in the country through the spectacular support by this programme. For the year 2011-12, there was 84 per cent increase in the number of articles published in impact factor journals by Pakistani researchers, portraying an amazing influence in the emergence of indigenous research. Figure below shows the growth of publications in Impact Factor Journals by Pakistani researchers.



The sustainability of the services by this programme is styled well with the below timeline in three different dimensions.

Time Line	2004-05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
E-Content Acquisitions	10,000+	20,000+	20,000+	50,000+	55,000+	55,000+	65,000+	75,000+
Usage of	10,000	10	2.5	3 0	4 0	5.5	7 0	*7.7
contents	10,000	million+						
Member	106	157	193	251	313	353	385	425
Institutions	100	137	193	231	313	333	363	423

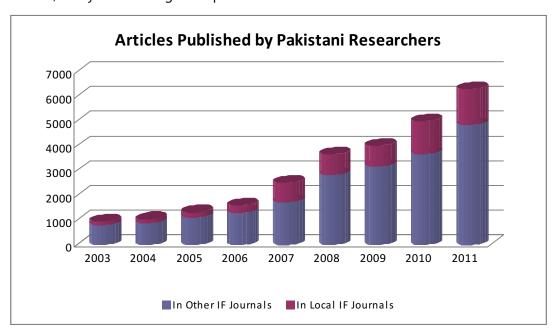
^{*}The usage for 2011 is still to be calculated, the figure was projected with the likelihood trend

Presently 15 per cent more fortified e-contents than the previous year has positively aided to the research contributions of Pakistani researchers in the international market. The usability of the resources is demonstrating the potential, our researcher had for seeking knowledge. With the accumulative number of 1.6 million scholars, the average of seven to eight articles download per scholar from the baccalaureate to PhD level indicates the increasing trend of research knowledge in Pakistan.

The research infiltration among the academics can be measured by another interesting approach. In 2003, there was one locally published journal that is included in Journal Citation Report (JCR) and with the escalation of 13 journals in 2011; overall nine times progression can be considered a good advancement. The table below shows the figures according to the JCR, number of locally published impact factor journal increased over the time. With the improving trend for the research also inflict the impact for the locally published journals in terms of increasing citations for the article as well the journals itself.

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of Pakistani	1	2	2	2	2	2	7	11	12
Impact Factor Journals	1	2		2	3	3	/	11	15

The stacks of articles from the Pakistani researcher with relation to the publications in impact factor journals that are locally published in Pakistan and the international impact factor journals are shown below. It is evident from the graph that the local journal contribution surges from 17 per cent in 2003 to 23 per cent in 2011 of the total publications, surely contributing to the production of native research.



1. Representation of NDLP in INASP Country Coordinator Meeting 2012.

For fifth year running in the current format, the 2012 PERii Steering Committee meeting (SC2011) took place in Oxford, UK. It is a five-day meeting held in June 2012 and the main tasks involved CCs to consult with key stakeholders to identify the key challenges that they face and possible responses to those challenges in the following broad areas:

- Sustainable access to international scholarly literature
- Successful writing, publishing and communication of research

- Effective use, evaluation and management of ICTs to support research
- Development of modern, digital research libraries and associated services
- Communication of research findings to influence policy makers

2. **Digital Library Best Practices**

On the role of awareness and ability to use information resources, NDLP team conducts extensive training programme that have great implication inculcating the research trends. To optimally utilize the available resources, NDLP team has started the training session through the video conferences. In this regard, participants from the University of Gujrat and University of Sargodha partake through the video conference and the workshop facilitator Ms. Syeda Tamkanat conducted the session from Islamabad. The training is conducted in two sessions and focused on the need, identification and evaluation of the information and how to manage it. The exercise went well and practice will continue for other remote universities.

Publisher's Training Programme

National Digital Library Programme hosted a joint venture with Emerald Publishing Group for the Pakistani HEIs in the third week of December 2011. This was a part of contemporary workshops seized with time to time with different entities but this spell especially included the insider's guide for authors. It was a two-day event and held in December 2011. The main agenda for the first day was;

- Recognition and Award for the institute with highest publications within emerald
- Author Workshop and for the second Day

Emerald Platform Training through Video-Conferencing for the institutes situated outside Capital



More than 170 researchers attended the two-day event through the video conferencing. At the end, the publisher acknowledged the Pakistani researchers by giving them award for the institute with highest publications from this platform and that was highly appreciated the participants. The universities names are displayed below:

Institution	No. of Authors
University of the Punjab	54
Institute of Food Sciences and Technology	52
Lahore University of Management Sciences	20

The universities with highest usage certificates are below:

S. No.	Institution	Downloads
1.	Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology	13,964
2.	Comsats Institute of Information Technology	13,685
3.	International Islamic University	11,687
4.	Bahria Institute of Management and Computer Science	11,571
5.	Bahauddin Zakaria University in Pakistan	8,603
6.	Fatima Jinnah Women University	7,856
7.	University of Management and Technology Lahore	6,862
8.	Air University Pakistan	6,665
9.	Lahore University of Management Sciences	5,145
10.	Islamia University	4,752

4. Compilation of Universities Research Output

For the sixth consecutive year HEC National Digital Library has been entrusted to compile the research output, in terms of publications indexed by Thomson-Reuters Web of Science, from the universities and DAI of Pakistan. It involves meticulous and painstaking work with attention to the each and every record for Pakistan in the Web of Science. The work has been completed and the information has already appeared in the national dailies. Details are also be made available at www.digitallibrary.edu.pk

HEC Library

HEC Library, located in the Commission Secretariat, fulfils information needs of HEC employees and management, researchers, faculty members and students. It provides internet and digital library services to scholars and users, besides helping out them in using Pakistan Research Repository. It also processes PhD theses for shifting to National Library of Pakistan, Islamabad.

In addition to national dailies in English and Urdu, 18 national and international journals/magazines are subscribed by the library. The library provides Current Content Service of more than 150 local research journals.

Internet facility/Wi Fi is also available for scholars and researchers. Limited numbers of workstations are available in library. In spite of limited computers in library, encouraging numbers of researchers visit library for Digital Library (DL), Pakistan Research Repository (PRR) and other academic assignments. Koha (Open Source Software) has also been launched by the library. It is an Integrated Library System that covers most functions of a library. OPAC of library can be accessed on LAN administrator. HEC Library processed 2324 PhD theses, shifted 1278 to National Library of Pakistan, Islamabad while 608 were received after digitization. HEC Library achieved Emerald Award for downloading highest numbers of articles in Pakistan.

Academics

Academics Division implements various programmes and projects aimed at providing institutional support to the universities of Pakistan in order to enhance their qualitative aspects. The Division also works for the promotion of collaboration among Universities of Pakistan and Foreign Universities, besides overseeing the offers for establishment of various programmes, projects and schemes related to higher education as approved by the HEC.

Admission of Foreign Students

In this era of globalization, institutions and nations that adapt to the changing environment are best placed to make the most of the opportunities and uncertainties involved. Realizing its importance and the fact that international student mobility is a source of enrichment and advancement for a nation and its institutions and students, HEC promotes, encourages and facilitates the foreign nationals and Pakistani nationals settled abroad to seek admission in Pakistan. It is pertinent to mention here that universities/institutions are earning in foreign exchange from the foreign students, which is a precious source for strengthening of the institutions.

Admission of Foreign Students under Self Finance Scheme (Professional Stream)

HEC processes the admission cases of foreign nationals and dual nationality holder Pakistani origin students against the limited reserved seats in the discipline of MBBS, BDS, Engineering and Pharm-D under Self Finance Scheme. The Scheme was transferred to HEC from Economic Affairs Division in June 2006. A student with his/her HSSC or equivalent qualification is eligible to apply. The eligibility criteria, terms and conditions and fee structure etc. is available at www.hec.gov.pk/sfs. The objectives of the Scheme are:

- to promote the image of Pakistan in outside world
- to share knowledge and expertise with friendly developing countries
- to renew contacts of expatriate Pakistanis with Pakistan through education of their children in Pakistan
- to provide education to students of developing and underdeveloped countries in Pakistan
- to earn foreign exchange for the institutions / country

Progress in 2011-12

During the year 2011-12, following number of foreign students/dual nationals were admitted in different educational institutions on the recommendations of HEC:

S. No.	Discipline	Seats available	Applications received	Students Recommended	Students Admitted
1.	MBBS	144	174	144	115
2.	BDS	15	11	11	05
3.	Pharm-D	108	103	92	72
4.	B.Sc. Engineering	105	109	104	91
	Total:	372	397	351	283

Admission of Foreign Students (General Stream)

The Academics Division facilitates the foreign students seeking admission in Pakistani Universities and assists them in obtaining NOC, visas and its extension by conveying endorsement to Ministry of Interior for security clearance and issuance of visa advice. HEC with concurrence of all relevant Ministries/Agencies has streamlined the procedure for admission of foreign students. All relevant details regarding admission of foreign students in the Universities/Degree Awarding Institutions of Pakistan are available at www.hec.gov.pk/fsadm.

Progress in 2011-12:

A huge number of foreign nationals coming from different parts of the world seek admission in Pakistani universities. Country wise detail of the cases of foreign students endorsed by during the year 2011-12 are as under:

S. No.	Country	Number
		of Foreign
		Students
		Admitted
1.	Afghanistan	425
2.	Austria	1
3.	Algeria	2
4.	Bangladesh	4
5.	Bolivian	3
6.	Bahrain	3
7.	Burkinan	1
8.	Bhutan	2
9.	Canada	1
10.	Czech Republic	1
11.	China	353
12.	Comoros	2
13.	Djibouti	1
14.	Egypt	1
15.	Ethiopia	1
16.	Germany	9
17.	Indian Held Kashmir	1
18.	India	3
19.	Indonesia	32
20.	Iran	16
21.	Iraq	5
22.	Japan	2
23.	Jordon	20
24.	Kazakhstan	1
25.	Kenya	24
26.	Korea	8
27.	Kyrgyzstan	3

S. No	. Country	Number of Foreign Students Admitted
28.	Libya	4
29.	Maldives	1
30.	The Netherlands	31
31.	Norwegian	1
32.	Nigeria	13
33.	Oman	1
34.	Palestine	15
35.	Philippine	1
36.	Rwanda	2
37.	Russia	2
38.	Saudi Araba	50
39.	South Korean	1
40.	Somalia	189
41.	Sri Lanka	6
42.	Sudan	30
43.	Switzerland	2
44.	Syria	4
45.	Tajikistan	4
46.	Thailand	23
47.	Turkey	65
48.	UK	3
49.	UAE	17
50.	Ukraine	1
51.	USA	4
52.	Uganda	1
53.	Yemen	5
	Total:	1401

CENTRES

The main objective of 24 Study Centres (12 Centres of Excellence, six Area Study Centres and six Pakistan Study Centres) established at different universities all over Pakistan was to engage in goal oriented high level teaching and research, establish MPhil and PhD programme, promote cooperation and inter-disciplinary relation with other Centres and Institutes. The Centres were established by the Government of Pakistan through different Acts of Parliament.

Moreover, in order to streamline instructions and research in Qur'anic Teachings and Arabic Studies and to further cement the fraternal ties existing between the two Islamic countries of UAE and Pakistan, His Highness Sheikh Zayed Bin Sultan Al-Nahayan, President of United Arab Emirates and Ruler of Abu Dhabi, established three identical Islamic Centres in the cities of Karachi, Lahore and Peshawar. The Government of United Arab Emirates established and equipped these Centres. They were transferred to the Government of Islamic Republic of Pakistan and handed over to the Universities of Karachi, Lahore and Peshawar in 1985. The major tasks and responsibilities of Academics Division in connection with above mentioned Centres are as follows:

- 1. Nomination of Subject Experts on Board of Governors of Centres
- 2. Nominations of Subject Experts on the Academic Committee of Centres
- 3. Nominations as HEC representatives in Meetings of BoGs and Academic Committees
- 4. Miscellaneous cases regarding the requests made by Centres.

The consolidated report of the cases pertaining to Centres dealt with is as under:

S.No.	Particulars	Number of Cases
1.	Nomination of Subject Experts on the BoGs of the Centres/Academic Committee of the Centres	9
2.	Meeting of BoGs/Selection Board attended	13
3.	Miscellaneous Cases	52

Post 18th Amendment and Devolution of Ministry of Education

Meeting of Vice Chancellors, Director of Centres and representatives from Ministry

Consequent upon legislation of 18th Constitutional Amendment, Ministry of Education was devolved, and the Centres were transferred to the respective Universities. The law providing for establishment of centres was not repealed the notification spoke or indicated nothing on the future of certain legal as well as administrative issues. Therefore, a consultative meeting to devise future working relationship amongst the Centres, the universities and other stakeholders, the physical and academic planning of the Centres and their future course of funding, and the role of the HEC and other stakeholders was organized at the Commission on June 21, 2011.

Constitution of Committee and Invitation of Proposals

As conveyed by Ministry of Inter Provincial Coordination (IPC) that the case for Notification of High Powered/ Cabinet Committee for consequential legislation is pending with the Cabinet, HEC was requested to submit proposed amendments in the relevant Laws relating to Centres. In light of the request made by the IPC, a 7member Committee was constituted to propose amendments, and to ensure participation of all the Centres in the matter, the Division invited views and proposals from all the Directors of the Centres in order to formulate its recommendation and propose amendments to be placed in full house of all the Directors and respective Vice Chancellors through its wide circulation.

Meeting of the Seven-Member Committee

The meeting of the seven-member committee constituted to propose amendments in the Act of the Centres was convened on December 13, 2011. The amendments as emerged in the light of Discussion of the forum members and the responses received from various centres in the Acts of Centre of Excellence, Area Study Centre and Pakistan Study Centres were later circulated amongst the Centres for their views and comments.

Institutional Strengthening and Up-gradation of Laboratories and Libraries

The programme Institutional Strengthening and Up-gradation of Laboratories and Libraries is aimed to provide support to public sector universities/DAIs in order to improve their infrastructure. In this era of knowledge based economy, the importance of Research and Development cannot be undermined. However, no meaningful research could be carried out without the proper scientific equipment and facilities. Through this programme, HEC provides maximum grant of up to one million rupees, either for strengthening and upgradation of Laboratory or Library. During the fiscal year 2011-12, HEC provided funds as per following details under the programme:

Year	Proposals Funded	Amount Funded (in millions)
2011-12	10	8.260

List of institutions which were provided funding, during the current financial year, under the programme:

S. No.	University	Department	Amount (Rs. in million)
1.	Fatima Jinnah Women University, Rawalpindi	Strengthening and Up-gradation of GIS/SRS laboratory at Department of Environmental Science	870,000
2.	Sindh Agriculture University, Tandojam	Strengthening of Horticulture Research Laboratory, Department of Horticulture	910,395
3.	University of Gujrat, Gujrat	Establishment of Water Quality Research/Analysis Facility in Advance Diagnostic and Research Laboratory	880,000
4.	National Textile University Library, Faisalabad	Strengthening and Up gradation of IT Facilities and Literature Resources	896,816
5.	University of Engineering and Technology, Lahore	Strengthening and Up gradation of Library Resources of Department of Polymer and Process Engineering	500,000
6.	University of Karachi, Karachi	Strengthening and Up gradation of research activities at the Poultry Research Lab at the Department of Physiology	955,000

S. No.	University	Department	Amount (Rs. in million)
7.	Mehran University of Engineering and Technology, Jamshoro	Strengthening and Up gradation of EDA Tools Lab with FPGA Based System Design Boards in Department of Electronic Engineering	684,748
8.	KPK Agricultural University, Peshawar	Strengthening and Up gradation of Mushroom Research Lab in Department of Plant Pathology	695,000
9.	University of Swat, Swat	Strengthening and Up gradation of the Departmental Library at Department of Economics	989,858
10.	Mirpur University of Science and Technology, Mirpur	Strengthening and Up gradation of Biotechnology Lab in Department of Biotechnology	879,000

Civil Awards

The nominations for the Civil Awards were invited on the prescribed proforma from all public and private sector universities/DAIs. Nominations were received from the different universities/ degree awarding institutions, consolidated and placed under following different categories as per new SOPs.

- A. Social Sciences, Humanities and Business Education.
- B. Arts, Design and Architecture.
- C. Natural, Basic and Applied Sciences including Engineering, Medicines, Agriculture etc.
- D. University Managerial and Administrative Personnel (including Vice Chancellors, Registrars, Controller Examinations, Directors etc)

The three sub-committees constituted for category A, B and C developed a scorecard, scrutinized the nominations as per criteria devised and made recommendations for different awards. The Main Awards Committee reviewed the recommendations made by the sub-committee and examined the documents of each nominee received from various Universities / departments under the category "D". After details consideration and keeping in view of their excellent contribution and outstanding position in the relevant field, HEC recommended 43 teachers for various Civil Awards to Cabinet Division under the categories:

Civil Awards 2012			
Category	Number of Awards		
Hilal-e-Imtiaz	1		
Sitara-e-Imtiaz	12		
President's Award for Pride of Performance	15		
Tamgha-e-Imtiaz	14		
Sitara-e-Quaid e Azam	1		
Total	43		

Out of 41 nominations forwarded to Cabinet Division for consideration, 11 nominees have been selected for different awards who will be conferred Civil awards on March 23, 2013.

Civil Awards 2012		
Category	Number of Awards	
Sitara-e-Imtiaz	5	
President's Award for Pride of Performance	1	
Tamgha-e-Imtiaz	5	
Total	11	

Best University Teachers Award 2010

During the current year, 57 teachers from various Public and Private Sector Universities were conferred with "Best University Teacher Awards" for the year 2010. Nominations were invited from all the Public Sector Universities and 127 nominations were received from 64 Universities/Degree



Awarding Institutions. The HEC Awards Committee after thorough scrutiny and detailed evaluation, recommended 57 teachers for conferment of the Best University Teacher Awards 2010. The awards ceremony was held on July 12, 2011 at HEC secretariat, Islamabad.

After the conferment of 46 Awards, the project "Best University Teacher Awards", which was initiated in May 2004, came to its closure by successfully achieving its targets and objectives. Under this project, 248 awards have been conferred against the target of 250 awards, over a period six years. In order to sustain the results achieved under the project during the past years, 57 Awards conferment "Best University Teacher Awards" for the year of 2010 from its recurring budget from fiscal year 2010-11.

Revision in the criteria of Best University Teachers Award

In order to make the criteria more transparent and efficient and remove some inherent flaws in the mechanism and evaluation criteria, it was decided that a new evaluation criteria and terms and conditions be developed for "Best University Teacher Awards" that could give an unbiased and objective evaluation of teachers. An expert committee was therefore, constituted for the purpose which took in consideration the inputs received from various Universities/ DAI's on the matter chalked out a new criteria which was circulated amongst Public and W category Private Universities for nomination for "Best University Teachers Award 2011".

All Pakistan Inter-University Debate Contest for Award of Allama Igbal Shield

Every year, the Higher Education Commission launches an All Pakistan Inter-University Debate Contest for Award of Allama Iqbal Shield to promote communication skills and critical thinking among the students, enhance understanding of socio-economic and political issues among students of various regions of Pakistan, and divert energies of students towards healthy activities and creative thinking.

This annual event was launched in 1994 by the erstwhile UGC in collaboration with the Ministry of Education, under the title "Prime Minister Shield" which was renamed "Allama Iqbal Shield" in 2000. The event has been included in the recurring budget of the HEC from FY 2010-11 onwards and being organized successfully. The Debate Contest is held in both English and Urdu languages. All students of the Public and Private Sector

Universities of Pakistan are eligible for the debating contest but only main campus of the University/DAI is eligible to participate.

The Debate Contest is mainly divided in three rounds. The contest is first organized at the university level (Intra-university Level) wherein students from all the



departments and constituent colleges of Public and Private Universities/DAIs take part. Second round is organized at Regional/Provincial level (Inter-university Level) at HEC Regional Centres Karachi, Lahore, Quetta, and Peshawar for their respective region and at Islamabad (for Federal, AJK, FATA/Gilgit Baltistan, Universities) wherein winning debaters of the first round take part.

In the final round which is organized at HEC, Islamabad, top scoring teams (consisting of two students) and one individual top scoring student (other than the team) selected in second round each in English and Urdu debates participate and every contestant is given a certificate and a replica of the Shield. The winners of first, second and third positions at final round (both in English and Urdu debates) are given cash prizes as under:

_	First prize	Rs.30,000/-
_	Second prize	Rs.25,000/-
_	Third prize	Rs.20,000/-

The contest culminates in the award of Allama Iqbal Shield to each winning university on the basis of highest cumulative score in English and Urdu Debates.

In 2011-12, thirty debaters, six from each Region i.e. Balochistan, Federal (Islamabad, AJandK, Gilgit Baltistan, and FATA), Khyber-Pakhtoonkhwa, Punjab and Sindh qualified to participate in the Final Round of 14th All-Pakistan Inter-University Debate Contest for Award of Allama Iqbal Shield, held at HEC headquarters Islamabad on April 12, 2012. Following are the winners for the 14th All-Pakistan Inter-University Debate Contest for Award of Allama Iqbal Shield:

(Team Events)

URDU Debate: Mr. Saad-ul-Hassan and Mr. Adnan Farooq

Government College University, Lahore (Punjab)

ENGLISH Debate: Mr. Shehryar Khan and Mr. Afzaal Humayun Khan

Institute of Management Sciences, Peshawar (Khyber-Pakhtoonkhwa)

(Individual Events)

URDU Debate:

Mr. Saad-ul-Hassan, Government College University, Lahore
Ms.Huda Hussain Bhurghari, University of Sindh, Jamshoro

Mr. Uzair Khan, Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad

ENGLISH Debate:

Mr. Afzaal Humayun Khan, Institute of Management Sciences, Peshawar

Mr. Shehryar Khan, Institute of Management Sciences, Peshawar

Ms. Roshan Amber Ali, University of Sargodha, Sargodha

First Prize Second Prize Third Prize

First Prize Second Prize Third Prize



ENGLISH Debate Winners
Mr. Shehryar Khan and Mr. Afzaal Humayun Khan
Institute of Management Sciences, Peshawar (K.P.K.)



URDU Debate Winners
Mr. Saad-ul-Hassan and Mr. Adnan Farooq
Government College University, Lahore (Punjab)

SAARC Activities

SAARC countries have been cooperating in the development of various dimensions of human resource since 1982 but decided to include education in the agreed areas of cooperation in 1988 and formed a Technical Committee on Human Resource Development at various levels; which finally reconstituted at the Twelfth SAARC Summit held in Islamabad in January 2004 to deal with matters pertaining to education, skill development, arts, culture and sports.

The SAARC leaders have noted the achievements of the member states during recent years in the area of primary education and stressed that to meet the challenges of the 21st century member states must make important strides in the areas of science, technology and higher education. It was, therefore, essential to establish a network of centres of higher learning and training, and Skill Development Institutes across South Asia. Academics Division upholds liaison and provides coordination in the implementation of the initiatives, resolutions and decisions taken at various SAARC forums relating to the higher education of Pakistan. To achieve the targets, Academics Division collaborates with the SAARC Secretariats through Ministry of Foreign Affairs, Government of Pakistan. The major SAARC activities coordinated by the Division, during 2011-2012, are as under:

MEETINGS/WORKSHOPS

1. Implementation Report of Sixth Meeting of the Committee of Heads of University Grants Commissions / Equivalent Bodies (Dhaka, 18–19 July 2010)

Subject report was circulated to the concerned authorities for response. Pakistan has implemented most of the decisions and resolutions of the subject report.

- 2. 17th SAARC Summit (Addu City, Maldives, 10-11 November, 2011) and 39th Session of Standing Committee (Addu City, Maldives, 7-8 November 2011)
 - Maintained correspondence with M/o Foreign Affairs regarding both the meetings with respect to material relevant to Higher Education of Pakistan.
- 3. Seventh Meeting of the Committee of Heads of University Grants Commissions / Equivalent Bodies (Thimphu on 19 20 April, 2012)

Prof. Dr. Nazir A. Sangi, Vice Chancellor, Allama Iqbal Open University, Islamabad and Mr. Talat Khurshid, Adviser (Academics) HEC were nominated to participate in the subject meeting to represent Pakistan but the delegates could not attend the same due to unavailability of flight schedule on due dates. The Meeting while taking stock of implementation of decisions taken at the Sixth Meeting of the Committee of Heads of University Grants Commissions / Equivalent Bodies (Dhaka, 18 – 19 July 2010), made a number of recommendations with a view to benchmarking the higher education standards among SAARC Member States. In this regard, the Meeting deliberated on mutual recognition of professional degrees, achieving a goal of a common regional educational standard and quality assurance and accreditation mechanism. Report of the 7th meeting has been circulated to the concerned quarters for implementation and response as required by the SAARC Secretariat.

• SAARC Chair, Fellowship and Scholarship Scheme

The SAARC Chair, Fellowship and Scholarship Scheme was instituted in 1987 with the aim of providing increased cross-fertilization of ideas through greater interaction among students, scholars and academics in the SAARC countries. SAARC States offer SAARC Chairs, Fellowships and Scholarships for the other Member States. This year, Royal Government of Nepal offered a scholarship in MBBS Course amongst the SAARC Member States (Selections for the one seat for the MBBS course will be among Bangladesh, Maldives, Pakistan and Afghanistan) hence applications were sought and nomination of Ms. Madiha Irshad was forwarded to M/o Foreign Affairs on October 25, 2011 for onward transmission to the SAARC Secretariat.

Bangladesh offered one SAARC Chair, four SAARC Fellowships and 10 SAARC scholarships to the SAARC Member States. In Pakistan, the offer was published in the national print media and information was also placed on the HEC website to announce the offer publically. In response, a number of applications were received under each category. After scrutiny, the following nominations were forwarded to M/o Foreign Affairs on December 13, 2011 for onward transmission to the SAARC Secretariat for further process.

S. No.	Category	Name of the Nominee
1.	SAARC China	Dr. Musarrat Jabeen
2.	Fellowship	Ms. Fariha Rehman
3.		Mr. Zuhaib Hassan
4.	Scholarships	Mr. Sohail Iqbal
5.		Mr. Sarfraz Asghar

Establishment of South Asian University

India mooted the idea of establishing a South Asian University (SAU) at the 13th SAARC Summit in Dhaka in 2005; suggesting the Member States to pool their resources for creation of a Centre of Excellence in the form of a University that would provide world-class facilities and professional faculty to students and researchers drawn from every country of the SAARC region.

Member States agreed to have a forum where our academicians, scholars, researchers and gifted students can work together in the service of human advancement. After a series of seven Meetings of the Inter-Governmental Steering Committee on the Establishment of South Asian University, the Member States finalized the modalities for South Asian University.

The capital cost of establishing the SAU is being funded by the Indian government, while all SAARC member countries contribute towards the operational costs. The University would also raise money from international financial institutions, educational foundations and donors. SAU campus is covering a 100-acre plot in Maidan

Garhi, Mehrauli in South Delhi. The First Governing Board Meeting of SAU was held in New Delhi in March 7, 2011 where Prof. G. K. Chadha was elected the first President of the South Asian University for a period of five years. The Second Governing Board Meeting of SAU was held in New Delhi on March 9, 2012.

The First Academic Session of SAU commenced on August 26, 2010, wherein first batch of MA (Development Economics) has graduated. In its second year of functioning, SAU has 156 students enrolled for Masters' Degrees in seven academic programmes i.e. Development Economics, International Relations, Sociology, Law, Biotechnology, Applied Mathematics and Computer Science. For the third academic year (2012 - 13), SAU invited applications for the common entrance examination throughout the SAARC Member States which held on May 27, 2012 and the third academic session will commence on July 16, 2012. From July 2012, when the third academic session would commence, the University would have a student strength of about 400 and faculty strength of about 70.

A number of students from Pakistan got admission in the South Asian University, directly (without using proper channel i.e. through HEC and M/o Foreign Affairs, Islamabad Pakistan). Government of Pakistan has also initiated the process for ratification agreement for establishment of SAU after redressal of some basic concerns / issues as well as assuring guarantee for further improvement from the Government of India on the SAARC forum.

Support to Scientific Talent Scheme

The project was approved by the CDWP in 1995 at the capital cost of Rs. 120.02 million. The specific objectives of the project are to:

- To meet the significant shortage of scientific manpower in Pakistan awarding them Subsistence Allowance commensurate with their qualifications.
- The main objective of the project was to prevent the loss of scientific manpower by providing them Teaching Assignment in the various recognized institutions in the public sector for one year.
- Contribution to some extent in reducing the unemployment in Pakistan in the current socio-economic conditions.

After, achieving 98.36 per cent target as per PC-I of the project, the PC-IV was submitted to the Monitoring and Evaluation Division HEC for final closure of the project and Rs.13.333 million have been surrendered to the Government of Pakistan in June-2012 as unspent balance of the project. Subsequently, after due process, the PC-VI has been forwarded to the Planning Commission of Pakistan for finalization.

Miscellaneous Tasks

This Division also caters the miscellaneous cases and requests received from various quarters which fall in the domain of Higher Education of Pakistan. These include important issues and correspondence, some prominent tasks dealt during 2011-12 are as under:

- 1. Request regarding "Funding for World MUN 2012" was dealt with.
- 2. Request for financial assistance from "UET Debating Society, Lahore" was catered.
- 3. HEC was requested to forward papers on "International Arab Conference on e-Technology (IACeT) from April 25-27, 2012 at Zarqa University, Jordan".

- 4. Resolution No. 9 / 38-S and T on "The Activities of International Islamic University, Malaysia (IIUM)" was forwarded to HEC to prepare a case for granting affiliation status to International Islamic University, Islamabad in the OIC as IIUM holds already. Proposal was forwarded to OIC Secretariat through M/o Foreign Affairs, accordingly.
- 5. A matter of M/o Religious Affairs, Islamabad "28th National Hifz-o-Qirat Competition-2012" was dispensed, accordingly.

International Cooperation

Pakistan has signed Pacts and Protocols Agreements, MoUs etc. with different countries of the world. Besides this, Pakistan established various linkages with foreign universities/research institutes in order to promote higher education in the country. The HEC reviews the existing pacts and protocols, MoUs etc. and furnish proposals relating to higher education on such occasions when VVIPs such as the President, Prime Minister, and Ministers and as well as other Government functionaries pay visit to foreign countries or any foreign delegation(s) visit Pakistan. The HEC also provides fresh proposals, talking points and prepare briefs etc. The major tasks include the following heads:

- 1. Submission of proposals to EAD for the visit of President and Prime Minister to foreign countries and visit of foreign VVIPs to Pakistan
- 2. Drafting and implementation of MoUs with different organizations
- 3. HEC views/Comments on Draft agreements/MoUs with different countries.
- 4. Implementation of decisions of JMCs/JECs
- 5. Briefs for Inter-Ministerial Meetings held frequently in follow up of decision taken during the visits and JMCs/JECs
- 6. Correspondence with the Embassies regarding provision of information, recommendations made by the High Commission/Embassies etc.
- 7. Processing of cases of Chairs like establishment of Chairs in Pakistani Universities, appointments against Chairs abroad.
- 8. Follow up actions after visits of the President, Prime Minister and Ministers.

The report for the year 2011-2012 is as under:

S. No	Particulars	Cases processed
1	Processing of MoUs/Agreements	30
2	Processing of poposals and follow up of JMCs/JECs	60
3	Inter-Ministerial Meetings attended, held at EAD And MoFA	22
4	Matters regarding Chairs Abroad	15
5	Miscellaneous Cases	28

Some of the major cases processed during the year 2011-12 are as under

- a) The President House Requested for comments on Establishment of a Chair in the name of Late Syed Shams-ul-Hassan in any University of Pakistan.
- b) The Cabinet Division requested for views on Establishment of Fatima Jinnah Chair at Princess Noora University, Jeddah, Saudi Arabia.
- c) Programme of Cooperation in the field of Education, Science, Culture, Mass-Media, Youth and Sports between Pakistan and Romania.

- d) Draft Protocol on Amendments to Agreement for Cooperation in the Field of Education between the Ministry of Education of the Kyrgyz Republic and Ministry of Education of Pakistan dated March 8, 2005
- e) Agreement on Cultural Cooperation between the Argentine Republic and the Islamic Republic of Pakistan
- f) Memorandum of Understanding between Sindh Agriculture University (SAU), Tandojam and Nanjing Agriculture University (NAU), P.R. China
- g) Agreement between Pakistan and Belarus on Cooperation in the field of Education.
- h) MoU for VEPP between UNESCO, HEC and H.E.J Research Institute of Chemistry.
- i) Admission of International students to various courses/programmes in the University of Delhi, India for the Academic Session 2012-2013
- j) Draft First Executive Programme for Educational and Scientific Cooperation for the year 2012-13, 2013-14, and 2014-15.
- k) Cultural Exchange Programme between the Islamic Republic of Pakistan and the Republic of Korea for the year 2012-2020
- l) Meeting regarding 14th Session of Pak-Turkey Joint Ministerial Commission held in Islamabad on May 19-21, 2012
- m) Follow up meetings to review the Implementation Status of the Decision of 10th Session of Pak-Sri Lanka Joint Commission.
- n) Funding, collaboration and enhanced determinations for the Asian Institute of Technology and to utilize the opportunities/outcomes with extraordinary passion for the betterment of mankind.
- o) Student Exchange Programme with Lebanese Universities.
- p) Proposals for Prime Minister's visit to UK to attend first review of Pak-UK Enhanced Strategies Dialogue (ESD) in May, 2012.

Nomination from UNESCO, ISESCO and Ministries

Academic Division coordinates with the UNESCO (PNCU), ISESCO, Ministry of Foreign Affairs, and like-wise Economic Affairs Division, Islamabad for forwarding the suitable nominations for various workshops, Prizes/Awards, conferences/seminars/trainings offered by various national/international agencies and organizations on education. The nominations are sought from Universities/Degree Awarding Institutions (DAIs) of Pakistan, regarding higher education. After processing, the nominations received from the Universities/DAIs are forwarded to the concerned entity/body for final consideration. Almost 75 cases of nomination were processed during 2011-2012 for prizes, awards, scholarships, fellowships, conferences, seminars and trainings. Some significant cases processed through different organizations are as under:

- 1. Youth Forum of the 36th Session of the General Conference, scheduled on October 17-20, 2011 at Paris
- 2. Call for nominations: 2011 UNESCO Madanjeet Singh Prize for Promotion of Tolerance and Non-Violence.
- 3. Nominations for the UNESCO-Hamdan bin Rashid Al-Maktoum Prize for outstanding practice and performance in Enhancing the effectiveness of Teachers
- 4. International Conference on Education Economics from Islamic perspective 19, 21 November 2011, Tehran.
- 5. Countdown for nomination for the Wenhui Award for Educational Innovation 2011
- 6. Nominations for the 2011 Edition of the UNESCO-Sharjah Prize for Arab Culture
- 7. Regional Workshop on Introducing New Trends in Science Curricula and Teaching Materials Dhaka, Bangladesh, 15-17 November 2011
- 8. Design competition for Logo-International Centre for Women Artist (Amman-Jordan) under auspices of UNESCO
- 9. UNESCO/Keizo Obuchi Research Fellowship Programme Cycle 2012

- 10. 2012 World Open Educational Resources Congress (OER)
- 11. 1st Meeting of Country Coordinators for the Establishment of the Pan-Islamic Research and Education Network (PIREN)
- 12. Nominations for the UNESCO Hamad Bin Isa Al-Khalifa Prize for the use of Information and Communication Technologies in Education 2011
- 13. Nominations for Asia-Pacific Centre of Education for International Understanding (Seoul) for Educators and Practitioners
- 14. Invitation from International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC) for Training Workshop, 11-15 June 2012, Kuala Lumpur Malaysia
- 15. Regional Training Session of Educational methods and Techniques for Literacy Among Women from 3-5 July 2012
- 16. Training Course on Development of Productivity Practitioners (DPP) from September 16 to October 14, 2011 at Kuala Lumpur, Malaysia.
- 17. A Course on "Training of the Trainers on Islamic Finance" in Khartoum Sudan from 24th to 29th September 2011.
- 18. Seminar on Chinese for Officials from Asia and African countries
- 19. World Innovation Summit for Education (WISE) in Doha, Qatar 1-3 November 2011
- 20. International Coal Conference scheduled on October 22,2011 at Sheraton Hotel, Karachi
- 21. Seventh Edition of the IDB Prize for Women's Contribution to Development (2012).
- 22. ISESCO Science and Technology Vision
- 23. Workshop on Development of Benchmarking Index for SMEs in the services sector focusing on the retail, food and beverage industries project notification no. 11-IN-GE-WSP-B
- 24. International Asia-Europe Conference on Enhancing Balanced Mobility 14-15 November 2011, Bangkok Thailand
- 25. IDB Prize in Islamic Banking and Finance for 1433H (2012G)
- 26. Seminar on "Human Disaster Management" at UHS (19-20th November 2011)
- 27. International Exhibition and conference on Higher Education (IECHE) (Riyadh, KSA 17-20 April, 2012)
- 28. International workshop on Technological Advances and Challenges in Water Reclamation and Refuse.
- 29. Seventh Refresher Course on Persian Language and Literature
- 30. Try Zero G-2 Announcement for Applications
- 31. ECO Awards 2012
- 32. International Workshop on Science and Technology Diplomacy for Developing Countries, Tehran May 13-16, 2012
- 33. International Workshop on Science and Technology Policies and Planning in SAARC Countries April 10-11, 2012 Islamabad
- 34. IT Engineering Trainer in Public Institution
- 35. Higher Education Imitative Under the Aegis of office of the Executive Coordinators or Rio+20
- 36. Invitation to ASEM Life Learning Conference "Learning Unlimited" 29-30 May, 2012
- 37. International Workshop on Public Policy for Poverty Reducation Governance Rationale Intervention and Impact Jaipur India 18-23 June 2012

Social Sciences and Humanities Research Council of Pakistan

Social Sciences and Humanities Research Council of Pakistan (SSHRCP) is responsible for identifying realities of diverse social and human issues which Pakistan is facing. It initiates plans for social transformation besides building knowledge and expertise on key social and cultural issues. It also encourages and assists social scientists and researchers in carrying out meaningful research for national benefit.

The Council right from its establishment has unwaveringly been committed in boosting research culture and exploring new avenues for emerging Social Scientists to conduct research in different areas of Social Sciences.

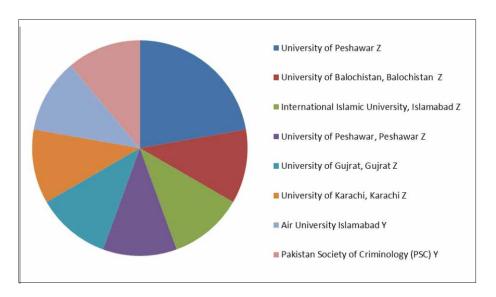
HEC Recognized Journals (Social Sciences, Arts, Humanities and Business Education)

HEC has been endeavouring to raise the quality of research in Pakistan to international level. Research journals are an excellent tool to enhance research capabilities. As such it has been decided to approve those research journals which meet the HEC criteria for recognized journals. Different lists have been approved for different purposes and different timeframes and are applicable only within the given framework. All Social Sciences Journals have been classified in different categories (W, X, Y, Z) as per of the criteria. HEC has phrased the following definition of 'HEC Recognized Journal/Journal of International repute'.

"A journal published regularly, having diverse editorial/advisory board, peer reviewed by at least two reviewers (including one international) and abstracted/indexed internationally".

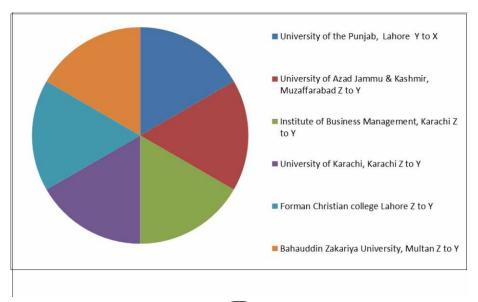
Research Journals Recognized by HEC in the Year 2011-12

S. No.	Journal Title	University	Category
1.	Journal of Business and Economics	Air University, Islamabad	Y
2.	Pakistan Journal of Criminology	Pakistan Society of Criminology (PSC), Peshawar	Y
3.	Me'yar	Department of Urdu, International Islamic University, Islamabad	Z
4.	Pakistan Journal of Social Issues (PJSI)	University of Gujrat, Gujrat	Z
5.	Pakistan Journal of Gender Studies	Centre of Excellence Women's Studies, University of Karachi, Karachi	Z
6.	PUTAJ (Humanities and Social Sciences)	Department of Journalism and Mass - Communication, University of Peshawar, Peshawar	Z
7.	PUTAJ (Oriental Studies)	Institute of Islamic and Arabic Studies, University of Peshawar, Peshawar	Z
8.	TAKATOO	Department of Pashto, University of Balochistan, Balochistan	Z



Research Journals Upgraded by HEC in 2011-12

S. No.	Journal Title	University	Category
1.	Journal of Behavioural Sciences (JBS)	Department of Applied Psychology, University of the Punjab, Lahore	Y to X
2.	Forman Journal of Economic Studies	Forman Christian College, Lahore	Z to Y
3.	Kashmir Journal of Language Research	Department of English, University of Azad Jammu and Kashmir, Muzaffarabad	Z to Y
4.	Pakistan Business Review	Institute of Business Management, Korangi Creek, Karachi 75190	Z to Y
5.	Pakistan Journal of Gender Studies	Centre of Excellence for Women's Studies, University of Karachi, Karachi	Z to Y
6.	Pakistan Journal of Islamic Research	Islamic Research Centre Bahauddin Zakariya University, Multan	Z to Y



Books Equivalence to Research Publications

The Council has been looking after the matters of books published by the renowned publishers, published research papers in the journals of international repute and other academic work for the grant of equivalence to research publications. Following subject wise equivalency-to-research-publications was granted during the year 2011-12:

S. No.	Subject Wise books	Approved	Disapproved
1.	Archaeology	0	1
2.	Business Education	4	2
3.	Economics	2	0
4.	Education	1	16
5.	English	1	0
6.	History	6	0
7.	International Relations/Political Sciences	13	16
8.	Islamic Studies	15	4
9.	Pakistani Language	18	25

Meetings of Social Science Sub-committees

Of total 20 Social Science Sub-committees, meeting of six Sub-committees namely "Sub-committee on Education", "Sub-committee on International Relations/political Science", "Sub-committee on English", "Sub-committee on Pakistani Languages", "Sub-committee on Islamic Studies and Arabic", "Sub-committee on History" were organized during the year 2011-12. Following were the agenda items for the above meetings:

- i. To examine the status of research journals published in the respective subject.
- ii. Thesis Writing Workshop in the in the respective subject.
- iii. Identification of academically advanced countries in the respective subject for sending PhD thesis.
- iv. Country-level standard of the syllabi in the respective subject.
- v. New teaching methodologies, including the use of video conferencing facility in the respective subject.
- vi. Exchange of research students.
- vii. Holding annual or bi-annual conference in the respective subject. Many important recommendations based on above agenda items were made in the above meetings.

Meeting of Committee for Development of Social Science and Humanities in Pakistan

HEC constituted a Committee for Development of Social Sciences and Humanities in Pakistan (CDSSHP) in 2003. The Committee comprises of eminent Social Scientists from the fields of Social Sciences, Arts, Humanities

and Business Education. The Committee has been given the task to deliberate upon, identify the problems and to recommend immediate, short term as well as long term measures to make social sciences education, vibrant, dynamic and attuned to the present and future needs of Pakistan.

The primary objective of the Committee was to develop the existing level of faculty and to create an environment that would be conducive to research and development activities in Social Sciences and Humanities sector. These essentially fall into three major areas.

i. Encouraging R&D in Social Sciences

To identify diverse social and human issues in Pakistan through understanding and initiating plans for social transformation by encouraging research and development.

ii. Faculty development

To improve and develop faculty of Social Sciences and Humanities through indigenous and foreign scholarships.

iii. Institutional and infrastructure development

To upgrade the existing resources and provision of institutional support to various departments/Centre of Excellence/Institutes of public sector universities across the country.

26th meeting of CDSSHP

The meeting was based on the following agenda items:

- Establishment of Regional Chapters of Social Science Conference
- Thematic Research Grant Programme Phase-II
- Holding International Social Science Conference
- Holding International Colloquium
- Strengthening of Secretariat of Social Sciences at HEC
- Modalities for Drawing Resources from NRPU
- International Publications in the disciplines of Social Sciences, Arts, Humanities and Business Education
- Mechanism for Evaluation of Journals, Books and Research Projects
- HEC Recognized Journals Ethics of Publication
- Progress reports of meetings of Sub-committees
- Categories of Research Publications for Social Sciences, Arts, Humanities And Business Education
- Criteria for HEC approved supervisor in Social Sciences, Art, Humanities and Business Education.

International Colloquium

International Colloquium on "Public Action in Pakistan: Between Apathy and Anger" was organized by Institute of Social and Policy Sciences (I-SAPS) Islamabad in collaboration with Social Sciences and Humanities Research Council of Pakistan (SSHRCP), Higher Education Commission from March 19-20, 2012 at HEC Islamabad. The Colloquium was first in the series of annual multi-disciplinary colloquia that allowed different Social Sciences' perspectives leverage and enrich each other.

Local as well as international scholars from academia were invited to discuss the difficulties in dealing with social change especially in developing and Muslim societies like Pakistan from multi-disciplinary aspects, with special reference to individual's personal behaviour and its relation to societal changes. The Colloquium was aimed at studying the dynamics of social change with special reference to Pakistan. Historians, anthropologists, sociologists, political scientists, economists, psychologist, media specialists, and development practitioners contributed through their paper-presentation and focused group discussions where they elaborated the historical and cultural contexts of the phenomena of apathy and anger in Pakistan and proposed solutions to the social problems caused by them.

Thematic Research Grant Programme (Phase-II)

Social Sciences and Humanities Research Council of Pakistan (SSHRCP), HEC Pakistan has allocated Rs.75 million for Thematic Research Grant Programme which was specially designed to address the contemporary issues of the country. The Council invited research proposals on the following four themes:

- 1. Sustainable Human Development, Poverty and Inequality
- 2. Costs and opportunities of Pakistan's changing age structure: Demographic dividend, aging and urbanization
- 3. The State in Pakistan: Internal and External Challenges
- 4. Ensuring human rights and cultural diversity: The role of media and civil society

International Collaborations

The Social Sciences and Humanities Research Council of Pakistan (SSHRCP), HEC in collaboration with American Institute of Pakistan Studies (AIPS) organized a three-day "Dissertation Writing Workshop" from December 19-21, 2011 in the subject of History. Local and American professors were invited to conduct the workshop. University faculty were invited to participate in the workshop.

Workshop for Editors of Islamic Studies and Arabic Research Journals

Social Sciences and Humanities Research Council of HEC in collaboration with University of Karachi organized one-day training workshop on Tuesday, April 17, 2012 for Editors of Islamic Studies and Arabic at Faculty of Islamic Studies and Arabic, University of Karachi, Karachi. The workshop was aimed at achieving the following objectives:

- To enhance the quality of research journals of Islamic Studies and Arabic.
- To make the editing process contemporary and at par with international standards.
- To discuss modern research methodologies in editing.
- To introduce emerging trends in editing environment.

- To develop interaction among the editors and to make them aware of HEC standards and criteria for recognition, funding and up-gradation of a research journal.
- To promote Code of Ethics in Editing

The main purpose of the workshop was to provide editors a forum to exchange their views and editorial experience with each other. The participants highlighted issues and challenges faced by them relating to indexing, abstracting, peer-reviewing and publication process involved in their journal. In order to address above the issues of editors, leading academicians were invited to offer their expertise as resource persons. Editors appreciated HEC's efforts in providing detailed guidelines on publishing a research journal.

Quality Assurance

Quality Assurance

Quality is the means through which an institution can guarantee with confidence and certainty that the standards of its educational provision are being maintained and enhanced. The tireless efforts of HEC aiming at improving the standards of higher education across the board have resulted in various policy developments and bold steps. The Quality Assurance Programme of the HEC has been developed with the aim to assure and enhance the quality of higher education being imparted so that Pakistani HEIs are equally compatible with international standards. The QA criteria development was the first milestone achieved by the Quality Assurance Division of HEC by developing criteria such as Minimum Criteria for MPhil and PhD, Faculty Appointment Criteria, Plagiarism Policy, Tenure Track Statutes, QA Criteria for Recognition of Journals. These criteria are the benchmarks to be followed by all HEIs and to be exceeded by the leading ones.

The Quality Assurance Agency (QAA) was established with the mandate of Internal QA and External QA of the Higher Education Institutions (HEIs) including promoting self-assessment practices. As faculty is the heart of academia therefore HEC emphasized on improving the quality of teaching by defining the minimum Faculty Appointment Criteria through which the objective of hiring qualified and experience faculty is being pursued. The QA criteria for Meritorious Professor and Professor Emeritus also further efforts to distinguish quality teachers. The Tenure Track System of Faculty Appointment is also under implementation which is offering market-based salaries to competitive teachers. The TTS teaching cadre has to remain focused on increasing research, teaching and community service participation to proceed further on the Tenure Track as it is a performance-based system offering much to those only who contribute significantly and fulfil their commitment to a quality teaching profession. TTS has also helped in making teaching one of the best career choices for young PhD scholars.

Special efforts have been made to increase the research and publication records of the HEIs which remained weak in the past. A parallel focus remained on improving the quality of research journals through compliance of QA criteria for recognition of the journals and required financial assistance offered to HEC recognized journals. Resultantly, the research output of Pakistani HEIs increased manifold during the last decade and overall research publication records of Pakistan has been noticed globally and quality of national research journals has also improved to a greater extent.

Simultaneously, in order to eradicate the menace of plagiarism from research publication the Plagiarism Policy was developed and executed with strict monitoring. The capacity building efforts on anti-plagiarism are focused at apprising faculty, staff and students about plagiarism and its different manifestation and provision of Turnitin service to further help potential plagiarism detection process.

Key Components of Quality Assurance Programme

HEC has developed and implemented various quality parameters to fill the gaps between quality provision of national and international systems of higher learning through bold initiatives which are mentioned below:

- National Quality Assurance Committee (NQAC)
- Eligibility Criteria for Faculty Appointment (Lecturer to Professor for all Disciplines)
- Model Tenure Track Process Statutes
- Support to Research and Research Journals for Quality Publications
- Criteria for Award of MPhil/MS/PhD degree programmes

- Plagiarism Policy notified and circulated among all the HEIs for implementation and the plagiarism cases are investigated as per policy
- Turnitin Software (Provided to all public sector HEIs) and regular follow-up utilization report by the HEIs is maintained
- Institutional Performance Evaluation Standards for all HEIs
- Guidelines for Award of Honorary Degrees (Provided to all Public Sector HEIs for implementation)
- Degree Supplement Form (DSF) implemented in HEIs
- Establishment of Directorate of Distance Education in Six Universities (To improve the quality education of private students)
- Guidelines for Selection of Vice Chancellors
- Criteria for Evaluation of the Sitting Vice Chancellors

HEC Recognized Research Journals

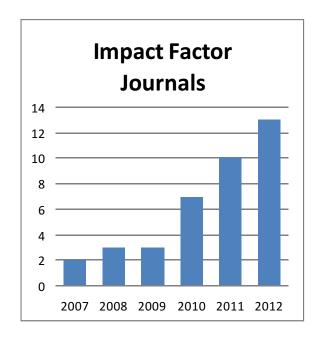
In order to encourage research culture in the country, HEC has recognized 193 research journals, including 106 in Social Sciences, 81 in Sciences and six in multidisciplinary category. The journals are categorized as W, X, Y, Z

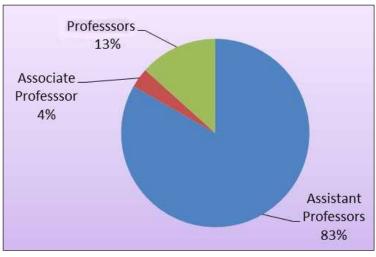
- W Category: all impact factor journals
- X: Internationally indexed and reviewed journals
- Y: Locally reviewed journals
- Z: Regularly published journals

Advancement of the Pakistani journals and their prominence at international level is also one of the priorities of HEC.

Impact of Promotion of Research Journals

- All the editors of HEC recognized journals have been directed to develop a webpage so that international researchers can be attracted and the research published in Pakistan be perceptible to international researchers.
- Following 13 Pakistani journals have obtained impact factor, as a result of above mentioned initiatives:
- 1. Asian Journal of Animal and Veterinary Advances
- 2. Pakistan Journal of Botany
- 3. Journal of the Chemical Society of Pakistan
- 4. Pakistan Journal of Pharmaceutical Sciences
- 5. Pakistan Journal of Medical Sciences
- 6. Pakistan Journal of Zoology





- 7. Pakistan Journal of Statistics
- 8. Pakistan Veterinary Journal
- 9. Journal of Animal and Plant Sciences
- 10. Journal of Animal and Veterinary Advances
- 11. Journal of Pakistan College of Physicians and Surgeons
- 12. International Journal of Agriculture and Biology
- 13. International Journal of Pharmacology

Financial Release to HEC Recognized Journals

As financial assistance in financial year 2011-12, an amount of Rs. 15 million was released to HEC recognized journals as per approved Standard Operating Procedures (SOPs).

Tenure Track System

One of the major initiatives of HEC is the Tenure Track System (TTS) of appointments which basically aims at enhancing performance and efficiency of the faculty members by creating a healthy competition among faculty members, allowing freedom of research and teaching, as well as the financial independence to pursue these objectives.

Tenure Track System offers certain performance based benefits to the faculty like financial benefit accompanying autonomy and freedom of research, further, young faculty is driven to establish themselves by the high stakes of the tenure positions, helping to create a culture of excellence within the university. Finally, tenured faculty may be more likely to invest time in improving the universities where they expect to continue with freedom of research and greater economic security. They may also be more willing to mentor and promote talented junior colleagues. Although the universities/institutions, being a custodian of Quality of Higher education and the appointing authority, are responsible to make all the appointment process for TTS, however, Quality Assurance Division carries out vetting and endorsement of TTS cases in order to ensure the quality of appointments as per information provided by the HEIs.

Impact of TTS Policy

Resultantly, over 75 public sector universities/DAIs have adopted this System for academic appointments with appreciation for HEC on this initiative. A total of 1,650 faculty members have been appointed on Tenure Track System by different universities /degree awarding institutions up till June 2012, whereas 400 appointments on TTS were made in 2010-2011. The above diagram shows level-wise distribution of faculty working on Tenure Track System. A paradigm shift from teaching to research has been observed in HEIs which will contribute towards knowledge creation, improved teaching and community services at large.

Plagiarism Policy

To curtail the menace of plagiarism, the Plagiarism policy was introduced in 2007 and strictly monitored in the context of compliance. The continuous efforts of the HEC are helping in the development of quality research in higher education institutions, and faculties as well as students are using proper documenting style for writing papers and other scholarly works. Awareness about plagiarism has increased due to annual workshops conducted for focal persons and university nominated faculty members. Universities are now taking up all plagiarism cases seriously and cases forwarded to them are investigated in the light of Plagiarism Policy. A total of 148 cases of plagiarism have been reported to HEC. One hundred and twelve cases have been closed after investigation, whereas 36 cases are under process.

Anti-Plagiarism Service "Turnitin"

Turnitin (Plagiarism Prevention Service) has been provided to all public sector universities and those private sector universities which have agreed to pay annual fee. The government R&D organizations as well as institutions of public policy are given free access as well.

Impact of Plagiarism Policy

- A culture of quality research is being promoted.
- Turnitin service for the year 2011-12 was renewed in July 2011 and new components erater and voice comments were introduced in the service.
- On-site demonstration was given at Bahria University, Islamabad and Karachi in June and July 2012 respectively.



Faculty members and scholars participated and their queries were responded to.

- In April 2012, demonstration and orientation of the Plagiarism prevention was held at University of the Punjab. Faculty members from various departments participated and shared their opinion and queries about the service.
- In order to motivate faculty members (belonging to the Universities in Sindh) to use Turnitin effectively for checking assignments, papers and theses an orientation was held at HEJ Institute, University of Karachi and Mehran University of Engineering and Technology, Jamshoro.
- Online demonstration through video conference was held for Islamia University, Bahawalpur, Agriculture University, Peshawar and individuals joining weekly demonstration were given orientation through Skype.

National Quality Assurance Committee

NQAC contributes as an advisory body for quality provision in higher education sector and reviews current policies for continuity and facilitation in responding to the global advancements and challenges in higher education sector.

- The Committee comprises eminent scholars, policy makers and the Vice-Chancellors of major universities to carry out the consultative process vital for effectiveness and ownership of the policy recommendations.
- Uptil now, 18 meetings of the NQAC have been conducted Impact on QA
- National level consultation on QA
- Ownership of QA policies
- Developed and recommend all QA Criteria and policy guidelines for HEIs

Establishment of Six Directorates of Distance Education at Six Public Sector Universities

The project was approved in 48th meeting of DDWP. As per PC-I, six universities were selected to establish the directorates of Distance Education i.e. University of Peshawar, University of Karachi, University of Sindh Jamshoro, Gomal University D.I. Khan, Bahauddin Zakriya University, Multan, University of the Punjab, Lahore.

The objective of these Directorates is to facilitate private candidates at Graduate and Master level and to improve the quality of learning as well as to enhance the success ratio in examinations of the private students. Uptil now the directorates in five universities have been established and candidates have been enrolled in different disciplines. The University of the Punjab Lahore



has not yet established the Directorate. Learning Management System is under process to be launched for six directorates. For the capacity building of directorates trainings have been arranged from time to time for faculty and administrative staff.

Impact

- Quality of education being provided by private students / external students has been improved.
- The academic experience with combination of on campus and off campus is offered to external students.
- System of education offered to external students is being streamlined in the best interest of students and parents.

Pakistan Qualification Register

Pakistan Qualification Register is a prime component of Pakistan Qualification Framework which is also in the process of development. PQR provides all the information regarding the accredited higher qualifications and HEIs and makes available to all stakeholders for reference. It helps in comparability, understanding, mobility and international recognition of qualifications.

Monitoring of Faculty Appointment Advertisements

Quality Assurance Division is continuously monitoring advertisements of faculty appointment and MPhil/PhD criteria, if there is any discrepancy in the advertisement then same is conveyed to the respective university for issuing corrigendum. This exercise is helping in sensitizing stakeholders about the quality and they know that HEC is monitoring their activities for developing a culture of quality through compliance of policies.

Patent Equivalence to Impact Factor Publication

In order to promote the applied research and encourage scientists who are involved in research and inventions, the Quality Assurance Division came up with the policy of equating Patent with Impact Factor (IF) publications. In this regard, international patents are given equivalence of upto five publications and national patents are given equivalence of upto two publications. QAD requests experts to give final verdict on the recommendations of the University committee. Almost 10 cases of patent equivalence were considered up till now and promoting further the applied research at HEIs.

Quality Assurance Division Webpages

QAD pages are updated regularly and policy changes are immediately uploaded on the website to provide access to relevant information. The updated status of journals, all QA criteria and FAQs help stakeholders seeking guidelines.

International Liaison

In order to incorporate international best practices in the context of quality assurance in higher education sector of Pakistan, a liaison has been developed with international networks on Quality Assurance.

- Membership of the Asia Pacific Quality Network (APQN) and International Network of Quality Assurance in Higher Education (INQAAHE) has been earned.
- HEC has sponsored three international conferences on Quality Assurance in higher education. The conferences were organized by Institute of Quality and Technology Management, University of the Punjab Lahore.

Impact

- HEC earned the APQN board seat and is now contributing in QA decisionmaking at Asia Pacific Region.
- QECs directly earning APQN/INQAAHE/membership.
- Global visibility of QA practices of Pakistan and recognition of higher education sector has been significantly increased.

Publications

- 'Quality Assurance Manual for Higher Education in Pakistan', which contained detailed instructions and explanations of QA processes like self-assessment etc.
- Faculty Appointment Criteria (Booklet)
- Good Practices for Quality Assurance for Accreditation Councils
- Plagiarism Policy approved by the Commission
- These publications have been circulated among all HEIs and are available on HEC website, as well as these can be purchased from the HEC press.
- Continuous QA articles publication at international QA conferences like APQN, & INQAHE, and ANQAHE, ACU-UK etc.









Quality Assurance Agency

Quality Enhancement Cells

The internal quality assurance processes within universities are being strengthened by Quality Assurance Agency through the Quality Enhancement Cells that are presently functioning in 69 public and 15 private sector universities of the country. One major activity being managed by the QECs is the introduction and implementation of the Self- Assessment Process at programme level in the HEIs. The system for strengthening internal quality assurance was developed by HEC considering the internationally accepted best practices and approved by the National Quality Assurance Committee.

Significant Achievements

An independent and dedicated system of quality assurance is now owned by 84 public and private HEIs of the country. Based on Guidelines, Criteria and Standards provided to the HEIs, different parameters of the Self-Assessment Process (Programme Mission-Objectives and Outcomes; Curriculum Design and Organization; Laboratories and Computing Facilities; Student Support and Guidance; Faculty; Process Control; Institutional Facilities and Institutional Support to programmes are now being implemented in 1139 programmes. Different stages of Self-Assessment completed till the end of the reporting period are summarized in the table below.

	QECs' Progress till June 2012							
Self-assessment cycle	Progress in Public Sector Universities (in terms of number of programmes)			Progress in Private Sector Universities (in terms of No. of programmes)	Total			
Phase I Phase II Phase III Phase IV (10 QECs) (20 QECs) (15 QECs) (24 QECs)					Phase I (15 QECs)			
Programme teams formed	335	510	166	210	118	1339		
SARs prepared	153	302	146	100	105	806		
Assessment teams formed	242	280	129	113	106	870		
Executive summaries prepared	82	242	101	60	104	589		
Implementation plans prepared	109	243	95	67	95	609		

- Capacity building is an ongoing activity for improvement in the management of quality in higher education. During the period under review, four workshops on different aspects of internal quality assurance were organized for representatives of QECs. In addition, nine meetings of Heads of QECs to discuss issues being encountered during the implementation of quality assurance procedures were held.
- Quantitative assessment of the QECs is now a biannual activity (covering the periods ending on June 30 and December 31) and is shared with the stakeholders.
- Monitoring of QECs has also been introduced and during the reporting period on-site visits to 15 'W' category private sector QECs was undertaken.
- 42 QECs till the end of reporting period had become members of international bodies like the Asia Pacific
 Quality Network, International Network of Quality Assurance Agencies for Higher Education and 15
 representatives of QECs participated in international events outside the country.

Accreditation Councils

The four Councils established by HEC, namely the National Agriculture Education Accreditation Council (NAEAC), National Council for Teacher Education (NACTE), National Business Education Accreditation Council (NBEAC) and National Computing Education Accreditation Council (NCEAC) continued to make progress towards assigning rating to programmes through peer-review process. Status during the reporting period is provided in the table below.

Accreditation of Degree Programmes

Accreditation Council	Programme Accredited	Applications in process
NAEAC	48	25
NACTE	31	57
NCEAC	39	9
NBEAC	20	38

Significant Achievements

Realizing the pivotal role of evaluators in the accreditation process, QAA has embarked on a programme of enhancing their skills through training by foreign experts. Objective is that the procedure adopted for application of accreditation criteria and standards during on-site visits is as per internationally accepted norms and leads to establishing further credibility of the process. The trained evaluators (Master Trainers) of each Council are to be further engaged in organizing workshops for other evaluators. Following three days workshops for Programme Evaluators were held:

- Dr. Christophe Terrasse from European Foundation for Management Development (EFMD), Brussels, Belgium was Resource Person for evaluators of National Business Education Accreditation Council in October 2011.
- Prof. Dr. Vivienne Baumfield from University of Glasgow UK was the Resource Person in March 2012 for National Accreditation Council for Teacher Education.
- Prof. Dr. Shahrin Bin Sahib, Director, Academics Development Management, Government of Malaysia was the resource person in June 2012 for evaluators of National Computing Accreditation Council.
- Various issues related to external quality assurance are being resolved through closer cooperation and coordination between HEC, the four Councils established by HEC and the nine Councils dealing with Professional degree programmes.
- Third meeting of all 13 Councils held at HEC in November 2011 made progress towards Standardization of Accreditation Processes and Assigning rating to programmes. HEC will also arrange training through foreign experts to evaluators of each Council for on-site visits.

QAA published "Parents Alert" in the leading newspapers of the country advising the parents and students to seek admissions in only those degree programmes that are accredited by the concerned Councils. The Councils also published lists of their accredited programmes in the newspapers. Accreditation issues arising between universities and the Councils continue to be resolved at HEC.

Major issue of non-registration of graduates of non-accredited veterinary medical education programmes from the Universities (PMAS Arid Agriculture University, Islamia University and Bahauddin Zakaria University) by Pakistan Veterinary Medical Council after meetings of concerned Vice Chancellors, Council and HEC is nearing resolution. QAA organized 10-week crash programme at University of Veterinary and Animal Sciences, Lahore, and University of Agriculture, Faisalabad to address the reservations of the Council.

Membership of Quality Assurance Agencies of the Islamic World

QAA acquired full membership of Association for Quality Assurance Agencies of the Islamic World (AQAAIW) in 2011-12.

PhD Programme Review

In continuation of the previous review visits conducted in 2005, 2007 to determine the implementation status of the HEC developed MPhil/MS and PhD criteria another round of visits were conducted during the reporting period. For the purpose, three review teams comprising Vice Chancellors and senior academics visited 54 universities. These criteria implementation is also one of the parameters being considered in the ranking of universities. New forms for data collection and checklists are being finalized for conducting another round of visits.

<u>Institutional Performance Evaluation</u>

During the preceding year, a pilot study involving review of four out of 11 standards by a five member review panel had been undertaken in five universities (Agriculture University, Faisalabad; Quaid-i-Azam University, Islamabad; Bahria University, Islamabad; Iqra University, Karachi; and Shah Abdul Latif University, Khairpur). Since evaluation of all public and private HEIs is now a mandatory process, a larger panel of reviewers has been constituted. A training workshop for the reviewers was organized on in April 2012 on the IPE Standards and internationally accepted best practices for conducting on site visits.

In addition to the four standards (Organization and Governance, Faculty, Planning and Evaluation, Curricula and Academic Programmes, and Institutional Resources), another two (Mission and Goals, and Planning and Evaluation) were included for conducting visits by a five member review team to the following universities:

- Government College University, Faisalabad
- Hamdard University, Karachi
- University of Gujrat
- Hazara University, Mansehra



Planning for the future and evaluation of the current status plays a critical role in success of systems including higher education. The effectiveness of the efforts of universities in realizing the mission and achieving the academic and research goals and the success of developing countries aiming at building knowledge economies depends on the availability and access to relevant and validated statistics. The emerging needs of planning and performance evaluation of the universities calls for accuracy and adequacy of relevant statistical data. Such up-to-date and validated data also adds value to global competitiveness through quantitative presentation of the performance of HEIs of the country.

Therefore, Statistical Information Unit (SIU) of HEC was assigned the task to collect, scrutinize, analyze, finalize and continuously update the statistics of higher education in Pakistan. The SIU has faced two major challenges in this context which are availability of required validated data and user friendly presentation of the data in an integrated manner.

For SIU, year 2011-12 was marked with significant developments and evolution in the context of new initiatives like data collection at institutional and academic programme level, data collection and verification to rank the HEIs of the country for promotion of national and global competitiveness, HE-BCI survey to map the economic impact of HEIs on the communities, etc. These new dimensions of statistical reforms and significant changes led a process of efficient and accurate data collection from all HEIs of the country. Three main initiatives were taken during the year including Quality and Research Based Ranking of Pakistani HEIs, Knowledge Exchange HE-BCI Survey, and Integration of SIU data on Business Intelligence Software.

During the year, SIU has finalized and published the ranking of Pakistani HEIs for year 2010-11 and started working for the year 2011-12. The webpage of SIU has been revamped and more diverse information has been made accessible for public, policy makers and other stakeholders.

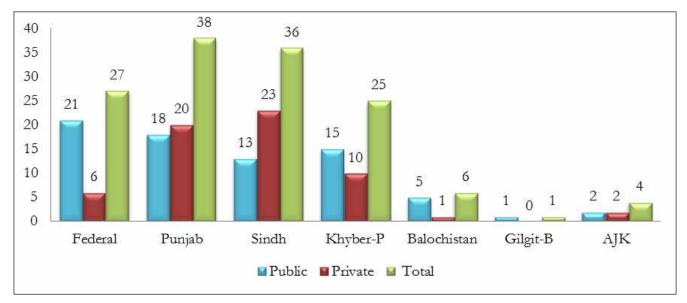
Statistical Reflections

Statistical reflections of the compiled and verified data sets regarding higher education sector of Pakistan are presented below:

1. Universities / Degree Awarding Institutions in Pakistan

There are 137 universities/ DAIs in the county, out of which 71 are in public and 62 in private sector. The new universities / DAIs which have been established during the year 2009-10 and recognized during the year 2011-12 are given below:

S. No.	Name of University/ DAI	Sector
1.	Peoples University of Medical and Health Sciences for Women, Nawabshah	Public
2.	Commecs Institute of Business and Emerging Sciences, Karachi	Private
3.	Shifa Tameer-e-Millat University, Islamabad	Private
4.	The Qarshi University Muridke	Private



Trend of Increase in Number of Public and Private Sector Universities/DAIs

1. Quality, Teaching and Research Based Ranking of Pakistani HEIs

Quality of higher education has become a primary agenda of the countries worldwide. For expansion of higher education and globalization of economic and social activities, university education has become a national concern in developing countries with international dimension. A well developed and equitable system of higher education that promotes quality learning as a consequence of both teaching and research is central for success in the emerging knowledge economy. In recent years, importance of rankings seem to have grown exponentially. Rankings are considered effective to provide institutions a tool for development and improvement, therefore HEC desired to build the capacity of HEIs of the country to get more international recognition.

During 2010-11, ranking proforma was sent to all public and private HEIs, out of which 127 HEIs responded. SIU has ranked all public and private sector HEIs using amended QS criteria as initially QS criteria cannot be fully applicable in Pakistani HEIs. Although the HEIs were ranked in their area of specialization by choice, however, an overall ranking of top 10 HEIs for the year 2011 is given below:

- 1. Quaid-i-Azam University, Islamabad
- 2. Pakistan Institute of Engineering and Applied Sciences, Islamabad
- 3. Aga Khan University, Karachi
- 4. University of Agriculture, Faisalabad
- 5. University of the Punjab, Lahore
- 6. National University of Sciences and Technology (NUST), Islamabad
- 7. Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi
- 8. University of Health Sciences, Lahore
- 9. COMSATS Institute of Information Technology (CIIT), Islamabad
- 10. Lahore University of Management Sciences, Lahore

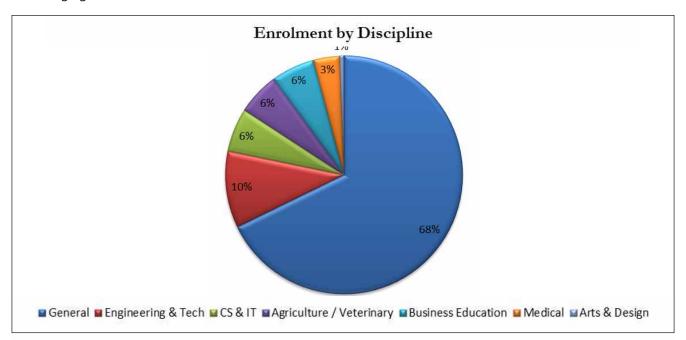
After finalization of ranking 2010-11, HEC requested HEIs for their precise suggestions in earlier March 2012 for future criteria. Ranking criteria has been finalized on the basis of suggestions received from HEIs. To enhance the scope of ranking for future years two more components are added i.e. 'Graduate Employability' and 'Academic Peer Perception' thus the ranking of HEIs for the 2012 is underway and receiving overwhelming interest from the universities.

Impact

- The number of HEIs participating in international rankings of various kinds increased and six Pakistani HEIs were placed among top 300 Asian Universities published by the QS World University Ranking.
- An overall competitive culture of academics and research is developing in HEIs of the country.

2.1 Enrolment at Pakistani HEIs

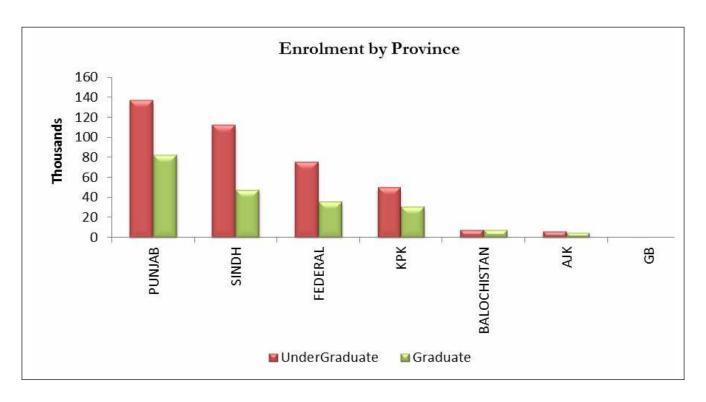
Enrolment at universities/DAIs (main campuses, sub campuses and constituent colleges) has been increasing over the years. Student enrolment at universities/DAIs during 2010-11 by discipline, province is given in the following figures:



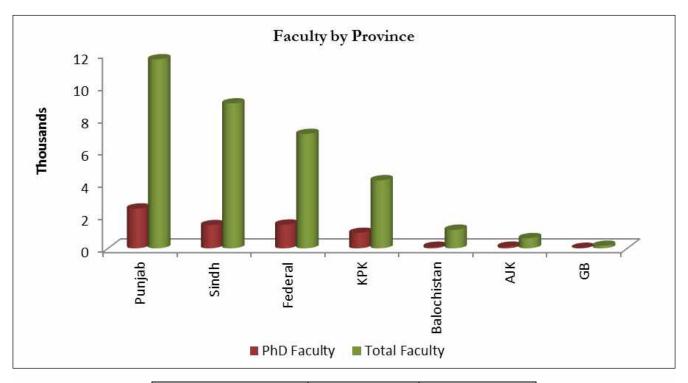
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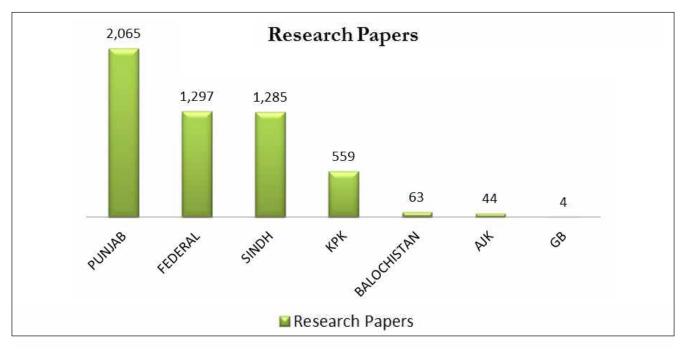
Discipline	Total Students
General	406,163
Engineering and Technology	62,566
Computer Science and IT	35,600
Agriculture / Veterinary	34,662
Business Education	35,409
Medical	21,342
Arts and Design	3,509



Province	Undergraduate	Graduate
Punjab	136,933	82,030
Sindh	112,197	47,607
Federal	75,616	35,545
KPK	49,966	31,091
Balochistan	7,791	7,548
AJK	6,392	4,768
Gilgit-Baltistan	1,086	681



Province	PhD Faculty	Total Faculty	
Punjab	2458	11685	
Sindh	1429	8958	
Federal	1467	7070	
KPK	955	4205	
Balochistan	92	1144	
AJK	97	625	
Gilgit-Baltistan	26	156	



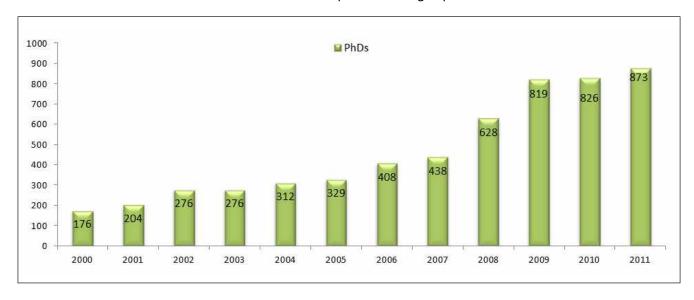
Province	Research Papers
Punjab	2065
Federal	1,297
Sindh	1,285
KPK	559
Balochistan	63
AJK	44
Gilgit Baltistan	4

1. Subject Level Information

One of the main functions of SIU is to collect educational statistics from each department from public and private sector universities and degree awarding institution on a regular basis. Two Proformae have been devised and sent to 131 public and private. Proforma-I is university-wise, in which SIU seeking information about academic programmes, facilities and quality assurance while Proforma-II is subject-wise, in which information needed about enrolment of students, output of students and complete information about faculty members. Seventy per cent information for year 2009-10 and 2010-11 has been received so far. The purpose of this task is to collect authentic and reliable data to further use for policy making and effective planning.

2. PhDs Produced by Pakistani Universities

Number of PhD graduates has been increasing over the years. During 2011, 873 PhDs were produced by Pakistani universities as compared to 826 during 2010. Yearly detail since 1947 is given below. HEC is maintaining a comprehensive database of PhD graduates including the name of scholar, subject, and title of dissertation, year of award of degree, name of superviser and name of the institution. Detailed information of all the PhDs produced by Pakistani universities from 1947 till date is available in 'PhD Country Directory of Pakistan' which can be accessed on HEC website at http://www.hec.gov.pk/statistics.



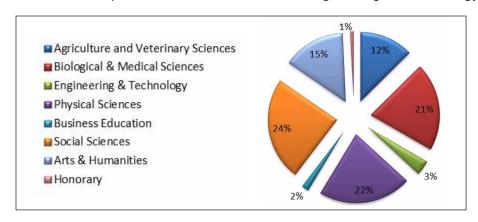
Number of PhDs Produced by Pakistani Universities

Year	PhDs Produced	Cumulative Total	Year	PhDs Produced	Cumulative Total	Year	PhDs Produced	Cumulative Total	Year	PhDs Produced	Cumulative Total
1947	4	29*	1963	7	99	1979	39	504	1995	178	1877
1948	1	30	1964	6	105	1980	28	532	1996	191	2068
1949	2	32	1965	11	116	1981	43	575	1997	171	2239
1950	2	34	1966	19	135	1982	48	623	1998	212	2451
1951	1	35	1967	23	158	1983	60	683	1999	201	2652
1952	1	36	1968	20	178	1984	53	736	2000	176	2828
1953	4	40	1969	7	185	1985	44	780	2001	204	3032
1954	8	48	1970	19	204	1986	72	852	2002	276	3308
1955	9	57	1971	40	244	1987	93	945	2003	276	3584
1956	7	64	1972	29	273	1988	100	1045	2004	312	3896
1957	5	69	1973	17	290	1989	71	1116	2005	329	4225
1958	5	74	1974	41	331	1990	89	1205	2006	408	4633
1959	5	79	1975	20	351	1991	99	1304	2007	438	5071
1960	2	81	1976	48	399	1992	139	1443	2008	628	5699
1961	4	85	1977	30	429	1993	131	1574	2009	819	6518
1962	7	92	1978	36	465	1994	125	1699	2010	826	7344
									2011** Ongoing	873	7217

^{*25} PhDs were produced by University of the Punjab before independence of Pakistan (i.e. during 1930 to 1946). ** received till June 30, 2012.

PhDs Produced by Discipline

Discipline-wise distribution of PhDs produced by Pakistani Universities is given below. The broader spectrum of the data shows that the maximum PhDs were produced in the discipline of Social Sciences. On the other hand, the lowest numbers of PhDs were produced in Business Education, Engineering and Technology.



Discipline	1947 to 2002	2003 to 2012*	1947 to 2012*
Agriculture and Veterinary Sciences	348	679	1027
Arts and Humanities	666	529	1195
Biological and Medical Sciences	586	1096	1681
Business Education	14	123	137
Engineering and Technology	21	262	284
Honorary	50	8	58
Physical Sciences	709	1071	1780
Social Sciences	887	1085	1972
Grand Total	3281	4853	8134

^{*}Received till June 30, 2012.

The above table shows more than 100 per cent increase of PhDs in disciplines of Business Education and Engineering and Technology during years 2003-2012 as compared to years 1947-2002. To harness human capital towards Science and Technology, HEC took certain initiatives including Indigenous Scholarship Programme and from the above analysis of data, one can observe the shifting focus from Social Sciences and Arts to Science disciplines, in post-HEC scenario.

Pakistan Research Repository

The Pakistan Research Repository (PRR) was launched to promote the international visibility of research originating out of institutions of higher education in Pakistan and to be in line with global initiatives to promote free access to scientific literature. The aim of this service is to maintain a digital archive of the intellectual output of Pakistani institutions, to provide a single-entry access point to view research free of cost, and to distribute this information as widely as possible. It is a permanent digital record of all the theses and its contents are indexed by the leading online search tools including Google and Google Scholar.

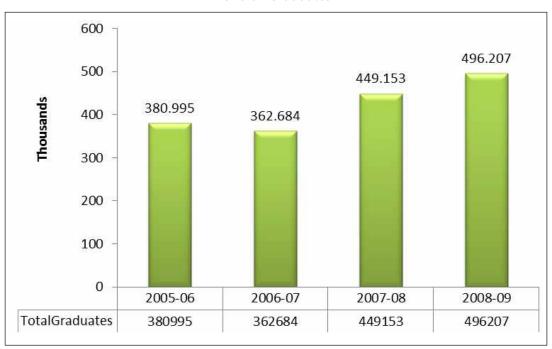
Graduates Produced by Pakistani Universities and DAIs (2005 to 2009)

Highly skilled workforce has become a basic need to meet the challenges of contemporary era which is all about competitiveness and efficiency. Challenges such as finding efficient alternative energy sources, improving agricultural produce to feed growing populations and understanding other cultures that must coexist in the global village would require individuals with higher education. SIU is collecting information of students graduating from different streams i.e. universities, constituent colleges, affiliated colleges and as private students. As mentioned earlier, the focus of data collection for Graduate Level Information was shifted to Subject level breakup of information from different streams i.e. Universities, sub-campus, affiliated colleges and private candidates.

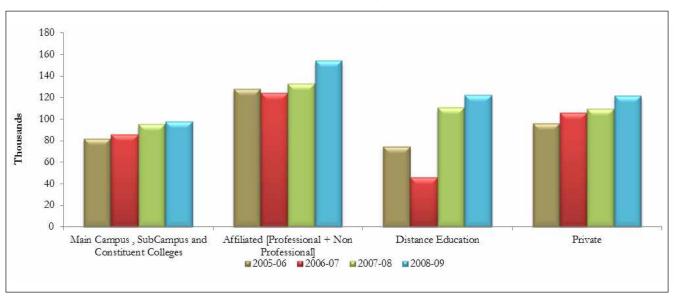
To assess and explore vulnerabilities of our HEIs graduate education system, in February 2011, universities were asked to provide data of graduating students for the year 2009-10. So far, data of 95 universities have been received. Graduate data is being compiled by gender, subject, sector, level of degree and graduating stream i.e.

universities, sub-campuses, affiliated colleges and private candidates. Detail of graduates' data including overall data, by different streams and by level of degree is shown in figures. During the year 2011-12, proforma for graduate level information for year 2011-12 have been finalized.

Overall Graduates



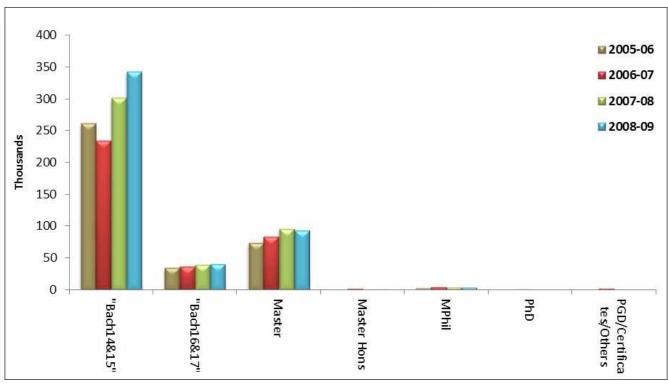
University-Degree holders Graduating from Different Streams



Graduating Streams	2005-06	2006-07	2007-08	2008-09
Affiliated [Professional + Non Professional]	127825	124695	133142	154142
Distance Education	74953	46112	111069	122483
Main Campus , Sub Campus and Constituent Colleges	82120	85956	95435	97751
Private	96097	105921	109507	121831
Total	380995	362684	449153	496207

The above table shows that maximum number of graduates (33%) were produced from affiliated colleges whereas from distance education (20%) and private graduates (25%) who only register for examination also form a significant number.

Graduates Produced by Level of Degree



Level of Education	2005-06	2006-07	2007-08	2008-09
Bachelor 14&15	261564	234516	302011	342441
Bachelor 16&17	36117	36125	40157	41646
Master	74736	83088	96682	94749
Master Hons	1715	1883	2419	2758
MPhil	4238	4326	4975	4948
PhD	404	455	643	786
PGD/Certificates/Others	2029	2090	2110	1742
Total Graduates	380995	362684	449153	496207

Above table shows that more than half of the graduates (65-69%) come from entry level i.e. Bachelors 14-15 years of education, 18-20 per cent from Masters (16 years of Education) and 9 per cent comes from Bachelor (16-17 year's programme.)

Knowledge Exchange, Higher Education Business Community Interaction (HE-BCI)

HE- BCI Survey is being carried out in collaboration with the British Council Nepal, Pakistan and Higher Education Statistical Agency UK. The proforma have been sent to universities for collection of data. The purpose of this survey is to gauge and measure how HEIs contribute in the economic development of the country or how to contribute in GDP. HEC is planning to attach funding to HEIs on the basis of their performance in term of statistical financial returns. Higher Education Council of English provides free consultancy to HEC through British Council. HEC will follow UK model to implement this in Pakistani universities. In November 2011, training session with coordination of the British Council was arranged for KE core team to facilitate them on how to implement HE-BCI UK in Pakistan. Mr. Andrian was the resource person. In January 2012, training session was arranged for SIU team to know the data collection, compilation and reporting procedures of Higher Education Statistic Agency (HESA), UK. Ms. Catherine Benfield was the resource person. For pilot survey, two proforma have been sent to 42 HEIs. So far, all 42 HEIs responded on part A proforma and 16 HEIs responded on Part B proforma.

Integration of SIU on BI-DRS

HEC is maintaining a number of information system applications to support students, faculty, researchers, universities, industries and general public. These systems include relational databases such as SQL Server and MS Access and non-relational databases. To collect data online from Pakistani HEIs, HEC hired the services of Techlogix Private Limited. Techlogix will be implementing Oracle BI and Hyperion in order to provide HEC with reports, KPIs, dashboards to facilitate them enable them with a platform to make faster and more accurate decisions. Database for ranking proforma 2010-11 and subject level data has been developed. Data entry of ranking proforma has been done and subject level information is in progress. Ranking reports were generated through Hyperion. Online data entry forms for HEIs will be available in December. Entered/available data of different divisions of HEC used for ranking was transported from the excel data sheets/ access database or from any other format to the system.

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Screenshot of BI reports

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Screenshot of data entry forms

Updating Website

The webpage of SIU has been revamped and more information has been made accessible for public and policy makers. As a first step, ranking of higher education institutions and raw data used for ranking has been uploaded on SIU webpage. Webpage of SIU is equipped with interactive graphs of HEIs, enrolment, graduates etc. Proforma of Quality and Research based Ranking, subject level information (2009-11) and graduate level information has been uploaded on SIU web page.



Information Technology

"The IT Division again ensured its commitment to providing full support and strategically assisted the higher education institutions in meeting 21st century challenges." The institutions of higher learning were encouraged and empowered with strong ICT infrastructure within the campuses, and were interconnected through a high speed backbone of Pakistan Education & Research Network (PERN). Moreover, concrete steps were taken to provide high availability and reliability of services and applications, strong captive infrastructure (i.e. National and Regional Data Centres) to the higher education institutions. The financial budget allocated for the IT HEC in the financial year 2011-12 was Rs. 810.84 million out of which Rs.804.58 million were utilized.

Major operational highlights over the last year include special emphasis on power management at PERN PoPs, and PERN connected universities given the power shortfall and fluctuations in the country. Enhancements have been made in the video conferencing setup to improve efficiency of interactive sessions and provide ease of connectivity. HEC IT division has been proactively assisting universities in setting up and upgrading their video conferencing setup with the latest available technologies. ICT consulting services were provided to numerous universities as well as other public sector organization for smooth execution of their IT projects and services.

The ICT facilities at the higher education institutes were established during the first MTDF 2005-2010 which is now lacking to meeting current challenges. The proposed developments will revive the facilities at HEIs at par with developed world.

Pakistan Education and Research Network

Pakistan Education and Research Network (PERN) forms integral part of the overall education system of the country and is designed to interlink all public/ private sector chartered universities/ degree awarding institutes, and other academic and research institutes. PERN provides students, faculty members and researchers a fully integrated and dedicated communication infrastructure using advanced information and communication technologies. PERN has R&E connectivity to other National Research and Education Network NREN(s) of the world and their consortia, including APAN (Asia-Pacific), GEANT2 (Europe), Internet2 (USA), etc. and initiate collaborative research with these consortia of NREN(s).

"PERN extends its services to additional 10 cities to serve universities/ institutes and has now spun-off College Network of Pakistan aimed to provide high speed digital communication links to the colleges as well".

Development Highlights

- Connecting islands of PERN Metro Networks in eight cities and distant universities/ institutes through the long-haul project
- Installation of DWDM equipment at the PERN PoPs and provisioning of more than 6000 Km end-to-end dark fiber between eight metro cities for PERN core network.
- PERN connectivity to Resource Centre Murree (RCM) established by Government of the Punjab.
- Gigabit connectivity to five distant universities as PERN extension through more than 500 km dark fibre and SDH transmission equipment.

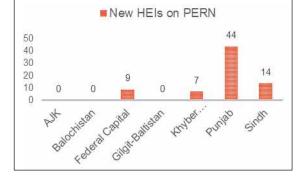


Figure 1. Expansion in footprints of PERN to serve other HEIs across Pakistan

- Establishment of five new Metro Networks and sub-Regional Access (sRA) PoPs in Bahawalpur, Sargodha, Sahiwal, DG Khan and Gujaranwala.
- Outreached to additional 10 cities while expanding PERN footprints to 33 cities and the overall increase in metro fiber length by 853 km.
- Gigabit connectivity to additional 74 HEIs including colleges through acquisition of leased dark fiber.

College Network of Pakistan

- PERN connectivity to 26 colleges spread over 12 cities of Punjab in collaboration with Higher Education Department, Government of Punjab.
- PERN connectivity plan of 63 colleges of Khyber Pakhtunkhwa prepared and communicated to Higher Education Department, Government of Khyber Pakhtunkhwa.
- Feasibility study to connect the colleges of province of Sindh onm PERN initiated and the same being coordinated with Higher Education Department, Government of Sindh.
- Proposal submitted to both the World Bank and the Universal Service Fund for necessary funding to connect 100 colleges of province of Balochistan to PERN.

Network Services

- Offering additional features like Application Performance Monitor, Net flow Traffic Analyzer, IP Address Manager, Network Configuration Manager to HEIs.
- Unveiling of new initiative to provide DNS hosting to all HEIs.

- Shifting to TEIN for linking PERN to Asia-Pacific, Europe and beyond through the new established TEIN* Cooperation Centre, South Korea over the TW1 network.
- Facilitating HEIs and other stake holders to properly log the security incidents for further actions accordingly.

Research Activities

Transforming PERN in collaboration with 12 HEIs as a research test-bed to run IPv6 on existing infrastructure and connect to international IPv6 backbone.

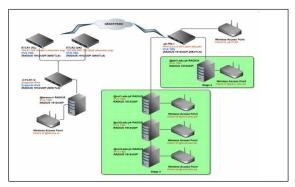


Figure 2. Conceptual design of PERN connectivity to eduroam network.

- Connectivity of PERN to Eduroam network. Eduroam (education roaming) is the secure, world-wide roaming access service developed for the international research and education community.
- Eduroam allows students, researchers and staff to remain connected to their parent institute while visiting other institutes already part of eduroam network.
- Hosting of Emergency Telemedicine Response workshop under TEIN3 research initiatives and introducing collaborative activities between the HEIs of Pakistan with other peer institutes in the region.

Table 1: Achievements during 2011-12

PERN Footprint expansion	No. of HEIs connected to PERN	Dark Optical fiber acquired (Km)	Bandv allocated
Bahawalpur	3	30.5	10

PERN Footprint expansion	No. of HEIs connected to PERN	Dark Optical fiber acquired (Km)	Bandwidth allocated (Mbps)
Bahawalpur	3	30.5	16
D.G. Khan	2	13.5	8
Faisalabad	5	41.2	32
Gujranwala	2	20	8
Hyderabad	1	18	8
Islamabad	9	95	101
Karachi	9	56	123
Lahore	14	112.1	121
Larkana	3	20	32
Mardan	1	6	40
Mianwali	1		12
Multan	4	56	24
Nawabshah	2	7.5	24
Peshawar	4	41	56
Rawalpindi	4	34.5	26
Sahiwal	3	19.5	16
Saidu Sharif Mingora	1	55	16
Sargodha	2	8	8
Shikarpur	1	6	8
Sukkur	1	9	8
Taxila	1	5	20
Upper Dir	1	200	12
Grand Total	74	853.8	719

Operational Highlights

- Designing of Electrical Power System drawings for 15 PERN2 PoP Sites along which includes wire gauge and the running load calculations.
- Installation of the Line conditioner 3-phase 36 KVA at QAU Pop site ISB due to counter voltage fluctuations.
- Setting up 6 KVA UPS for NE 40-X3 Router at Air University PoP and re-wiring from ACDB panel to uplink the PoP site which was drowned due to flood in 2010.
- Finalization of earth testing survey plan and earth resistance measurement for PERN connected sites.

HEC – Microsoft Education Alliance

The Higher Education Commission aims to promote a healthy culture of the use of licensed software only across the higher education sector. For this and realizing the extensive use of Microsoft products at the higher education institutes across Pakistan, HEC signed an Education Alliance Agreement with Microsoft to lead the way not only in implementing licensed software within HEIs but also keep abreast with the developments that take place in software world. This initiative provides full access to the latest licensed software from Microsoft, not only for servers operating in the universities but also for the desktops and laptops of faculty and staff. It extends the free software access of "use at home" to all faculty members and the students as well.

Development Highlights

- 24,256 computers upgraded to latest desktop software at 73 public sector universities.
- 43 universities' infrastructure upgraded with latest server technologies
- 100,000+ downloads from 71 universities through free software access which is accessible to more than one million students
- 14 more universities with 7,000+ users (faculty and staff) facilitated with unified communication (email and voice/ video conferencing)
- 25 high specifications computers based state-of-the-art IT Academy (Microsoft Certified) established and fully operational in Lahore
- 160+ IT administrators provided with Microsoft certified training
- 250+ faculty members trained on latest Microsoft technologies
- 250+ Onsite Events (road shows and seminars) in 40+ universities with 10,000+ students
- 150+ Online events (video and webinars) in 61 universities with 6,000+ students
- 11,000 student registrations with 164 projects by 31 universities in National Technology competition
- 500% increase in students becoming Certified Professionals
- Model IT Academy has been established at HEC Regional Centre Lahore
- Faculty and IT administrators are provided Microsoft Official Curriculum (MOC) based trainings at the IT Academy
- Arrangement of ELMS training session for South Region University Focal Persons, in HEC-Karachi
- Setup of HEC-Microsoft Roadshows in Karachi Region



"All public sector universities and degree awarding institutes in Pakistan have been given full access to the latest licensed software from Microsoft, not only for all servers operating in the universities but also for the desktops and laptops of faculty and staff. It further extends the free software access of "use at home" programme to all faculty members and the students as well."

Establishment of Microsoft IT Academy at HEC Regional Centre, Lahore

The Microsoft IT Academy Programme is designed to help educational institutions to deliver training solutions on Microsoft technologies to deliver training solutions on Official Microsoft Learning Products ("OMLP") Microsoft Dynamics, Microsoft Official Academic Curriculum ("MOAC"), E-Learning Courses, Digital Literacy Curriculum courses and such other Microsoft authorized materials for use as Course materials by universities IT professionals at universities from time to time. This Academy will also help HEC to build a skilled work force at HEC head office and regional offices in terms of strong technological skills and adoption of such technologies.

National Video Conferencing Network

By supporting the mandate of HEC to develop e-Academia, video conference network has been established by providing world class purpose built video conference facility at each public sector university across Pakistan. This interactive teaching and learning facility is now spread over 30 major/ minor cities covering more than 77 public sector HEIs.

Development Highlights

- Establishment of seven new sites at newly chartered universities which includes:
 - Upper Dir Shaheed Benazir Bhutto University
 - Malakand University of Malakand
 - Peshawar Khyber Medical University
 - Peshawar Islamia College University
 - Larkana Shaheed Muhtarma Benazir Bhutto University
 - Quetta HEC Regional Centre
 - Islamabad HRD Division, HEC
 - Establishment of Helpdesk for video conferencing technical support to HEIs.

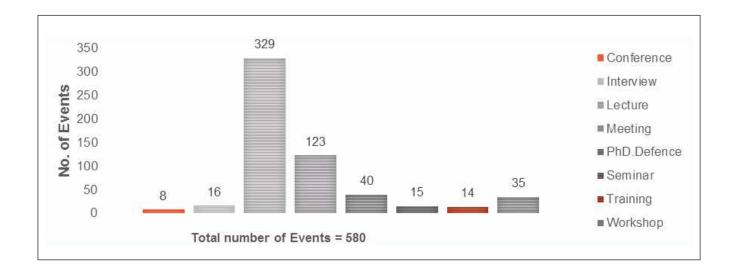
Operational Highlights

- Extending consultancy services and knowledge sharing to following organizations:
 - Benazir Income Support Programme (BISP)
 - Board of Investment
 - FATA Secretariat, Peshawar



"Virtual Education
Programme of Pakistan
meets the standards in
distance learning program.
Through this programme
eminent professor/ scholars
both foreign and local are
invited to deliver domain
specific series of lectures".

- Facilitating events from within and outside HEC premises at various locations through mobile video conferencing setup.
- Easing the portal interface for video conferencing record-keeping for appending records of new events, sites and attendees' participation.



Acid attacks and their effect on society

Organized by the U.S. Embassy in partnership with HEC, Acid Survivors Foundation, and the Aurat Foundation through the Gender Equity Programme. The discussion was aimed to survive the faces in Pakistan 48 HEIs and participants from all over the country participated from HEC regional centres.



Inspiring a new wave of Entrepreneurs

The Young Entrepreneurs Forum (YEF) of Islamabad Chamber of Commerce arranged a one day National Entrepreneurship Conference on titled "Inspiring a New Wave of Entrepreneurs" in collaboration with US Embassy, USAID, Partners for a New Beginning (PNB), Center for International Private Enterprise (CIPE), and Junior Chamber International (JCI) Islamabad.



Inauguration ceremony of AIOU Regional Campus at Umarkot Sindh

Campuses of AIOU were facilitated for participation in inauguration ceremony of AIOU Regional Campus at Umarkot Sindh, some 400 km from Hyderabad.



COMSATS (CIIT) Convocation

Prime Minister of Pakistan Syed Yousuf Raza Gillani was invited to formally Inaugurate COMSATS Institute of Information Technology (CIIT) Islamabad. Through video conferencing network, HEC facilitated the CIIT main campus at Islamabad along with six other campuses at Lahore, Abbottabad, Wah, Attock, Sahiwal and Vehari.



2nd All Pakistan Inter-university debate contest

Forty HEIs participated in the unique event through their respective video conferencing facilities. The event was scheduled for six days in which one debater from each HEI competed for top two regional finals. The final was among the top 10 debaters.

Workshop by Emerald Publishing Group

HEC's National Digital Library Programme hosted a workshop in collaboration with Emerald Publishing Group. The digital library representative, faculty members, and scholars were invited to take part in the event which was attended by 50 HEIs from across Pakistan.



Inauguration of Resource Centre, Murree

Chief Minister Punjab inaugurated the Educational Resource Centre at Murree. During that inauguration he talked with the students of different universities through video conferencing which was established by HEC in collaboration with District Government of Punjab.

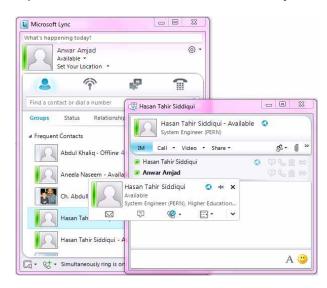


"The Unified Communication architecture consists of single domain/ forest with two Active Directory sites having eight/ nine "Microsoft Exchange Server 2010" at each site which provides better services to clients, failover, scalability and redundancy".

Unified Communication

Under the project of HEC – Microsoft Education Alliance, universities are provided with the personalized email account for their faculty and

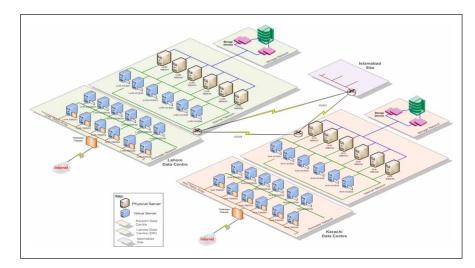
staff members. Managed and centralized services at HEC will ensure reliable, secure and instant communication. University's IT



administrators have full control to manage email service for their University. This will not only empower and help in capacity building of IT Administrators but also serve the purpose of ownership which they do not have when their email services are hosted at 3rd party data centers and administrators work just as a coordinator.

Development Highlights

- Deployment of the Education Alliance project in two data centres located in Lahore and Karachi.
- Site-to-Site VPN between LHR and KHI Data centres using Microsoft TMG as well as GRE tunnel.
- Integration of PABX with Lync to allow connectivity using phones.
- DNS Hosting provided to 12 Universities: DNS hosting services to all HEIs



connected to PERN to tackle growing demand to have control of updating DNS records.

• LYNC is integrated with KHI-MCU: To handle situations where video conferencing hall is occupied but the participants need to join any ongoing interactive lectures. They can now join lectures using Lync from desktop system.

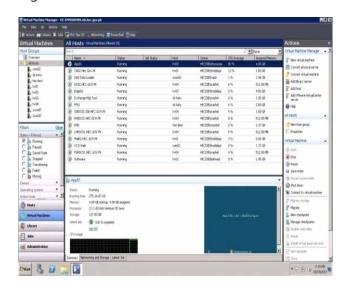
	26 Universities are delegated control of Email and LYNC Setup						
	Sindh	Balochistan	Punjab	Khyber Pakhtunkhwa	Federal	AJ&K/ Gilgit- Baltistan	
Total	3	3	3	4	13	-	

"The Private Cloud technology as implemented is primarily aimed at providing email services, Lync services, desktop v i d e o conferencing, and SIP soft telephony services to the faculty and staff of all public sector universities across the country".

Private Cloud for HEIs

HEC has successfully deployed the first ever Private Cloud in public-sector in Pakistan based on Microsoft technologies for providing both Infrastructure as a Service (IaaS) and Software as a Service (SaaS). This Private Cloud is based on distributed architecture spanning over two Regional Data Centres of HEC in Karachi and Lahore.

The Private Cloud technology as implemented is aimed to provide email and the office communicator (i.e. Lync2010 as being the new Microsoft technology) services to the faculty and staff of all public sector universities. This design greatly helps us in resource optimization and dynamic resource allocation results a significant savings in scarce hardware resources.



HEC Data Centres

- New hardware (Rack, Chassis along with accessories) with all standard Data Centre cabling, cable dressing with clips along both sides of the rack, proper labeling and tagging, PDU power distribution and Power Load balancing is installed.
- UPS Battery Cabinet at HEC Karachi Data Centre is replaced.
- To provide IT services to the universities new hardware is installed under education alliance.
- Disaster Recovery (DR) site has been created for the main National Data Centre, Islamabad. By establishing the DR site, the reliability and availability of the network and application has enhanced and has ensured survivability in case of natural or manmade disasters.
- National Cloud Computing facility formed at New IT Building
- PERN Secretariat/ NOC in HEC constructed.

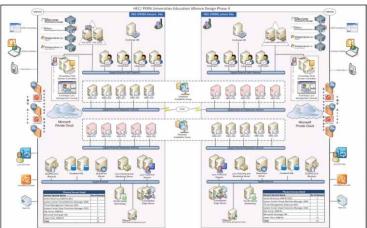


HEC has established technologically advanced ICT facilities at its Head Office in Islamabad, as well as at the Regional Offices in Peshawar, Lahore, Karachi and Quetta, having high speed internet facility and bandwidth, running various online high quality IT services for its users.

The computing facilities at HEC offices have evolved in phases, whereas first such efforts were made in 2003-04. While realizing the increasing need and overwhelming response from the users, the facilities were further expanded to other buildings and areas in 2005-06 and later in 2008-09.

At HEC Secretariat in Islamabad 12 buildings are interconnected redundantly with 1Gbps optical fiber link. Moreover, all the four HEC Regional Centres were equipment with advanced computing facilities in 2010-11 as to provide enabling environment to the staff, faculty of HEIs as well as public users who visit the centres for various HEC services. All four regional centres are connected through Virtual Private Network (VPN), presenting a tightly integrated environment. The HEC network and systems' operations is available 24/7.

"All public sector universities and degree awarding institutes in Pakistan are given full access to the latest licensed software from Microsoft, not only for all servers operating in the universities but also for the desktops and laptops of faculty and staff. It further extends the free software access of "use at home" programme to all faculty members and the students as well."

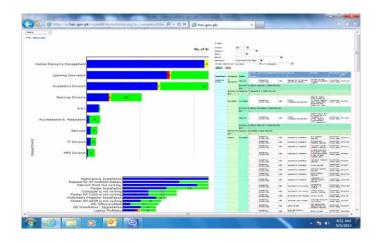


Strengthening ICT Facilities at HEC Secretariat

- Restructuring of core fiber network across the campus while re-routing and replacing to meet the ever changing needs.
- Enhancement in the WiFi coverage within and around the buildings by installing nine Access Points across campus.
- Provision of advance network service of GRE tunnel based Site-to-Site VPN between Islamabad, Lahore and Karachi for local traffic routing.
- Facilitation to more than 200 officers for enhanced productivity through Internet @ Home and On-the-Go.
- Empowering the overall workforce as part of strategy for enhanced productivity through equipping administrative support staff with laptop facility.
- Facilitation to addition 40 per cent users for the voice communication services.
- Re-deployment of Microsoft Systems Centre Configuration Manager (SCCM) for providing automated technical support from IT Helpdesk.
- Strategizing the IT operations by transforming Linux based systems to Windows based machines or vice versa applicable to any running existing application in order to minimize the downtime through image translation, i.e. .tib to .vhd.

IT Support Services

- Provided to 200+ users at HEC Islamabad and a total of 2560 service requests addressed during the year.
- Desktop systems issued to 50 new users after upgrading old ones due to ban on procurement of new ones.
- Auction of old IT equipment (i.e. Desktops=255, Laptops=47, Printers=24, Fax=2, Photocopier=5, UPS=6) at HEC Secretariat.
- Provided technical support during various events organized at HEC Auditorium, Video Conferencing Lecture Hall, Mural Hall, LID Hall, and other outdoor events.



ICT Developments at Regional Centres

- Installation of Precision Cooling System of renowned brand of STULZ at the Regional Data Centres in Karachi and Lahore.
- Installation of four Alcatel OmniPCX IP/ TDM Digital Exchanges at HEC Regional Centres Karachi, Lahore and Peshawar with 120 intercom lines each.
- Integrating all the Regional Centres' Exchanges with the one in HEC Secretariat Islamabad in mesh topology with features transparency and centralized directory.
- Establishment of Computer Corner at Regional Centre Karachi to facilitate applicants who visit for degree attestation and degree equivalence purposes.
- Arrangements for about 75 events through video conferencing facility at the Regional Centre Karachi.
- Installed WiFi Hot Spots, public address system, and servers at the Regional Centre Karachi.
- Establishment of 180 nodes network for voice, data, TV cable and IP surveillance cameras at office/ guest house buildings at Regional Centre Karachi.

- Installation of 30KVA UPS for the setup of Business Intelligence Dynamic Reporting System at Regional Centre Lahore.
- Rearrangement of the UPSs installed (i.e. 7KVA Delta, 10KVA APC, 2KVA Emerson, and 30KVA Delta) for redundant power supply to the servers installed, and prepared UPS load distribution diagram for Regional Data Centre Lahore.
- Upgradation of Transformer from 200KVA to 400KVA for Regional Centre Lahore.
- Organized eight curriculum based trainings on various technologies at the HEC IT Academy, Regional Centre Lahore.
- Facilitation to more than 500 users for providing access to Digital Library resources from the lab setup for the purpose at Regional Centre Lahore.

Online Reservation Systems for Degree Attestation

The Higher Education Commission initiated the Online Degree Attestation Reservation System (DAS) in March 2009. It has been running successfully ever since and has made attestation process for users much easier and swifter.

Development Highlights

- Along with the Online reservation system a strong support was provided with the system as FAQ's were placed on the web at http://www.hec.gov.pk/das to answer queries of users. Every email sent to the email addresses on the link were responded within 24 hrs.
- Owing to Incredible hits of around 2.5 lacs per day on DAS servers, design level changes have been made to reduce response time of system and ensuring security.
- The number of applicants has been the highest so far compared

During	No. of	No. of	Documents Attested	
2011-12	Applicants	Applications	Original	Photocopy
July	5159	5817	8116	4420
August	5025	5767	7501	4163
September	7683	8473	10136	5119
October	6040	6827	8834	5388
November	5438	6214	7973	5130
December	6768	7713	10156	7121
January	7211	8388	10384	8038
February	5972	7045	8668	5632
March	7150	8281	9983	5256
April	6809	7934	9647	5593
May	7553	11114	10359	6436
June	6260	9687	8125	4413

- to previous years. A total of 77,068 applicants applied during the year having 109,882 original documents attested and 66,709 copies of degrees and transcripts.
- Realizing the increase in number of walk-in applicants visiting HEC attestation area, the existing Lab comprising 25 computers for applicants, has been extended further by establishing a new Lab adjacent to existing one and accommodating 24 more computers.
- The laboratory can now accommodate 50 applicants simultaneously reducing the burden at attestation area and the long queues.
- Serving windows have been increased from six to 10 so that the applicants waiting to submit their filled forms and documents may be deposited and returned back after attestation at an earliest.

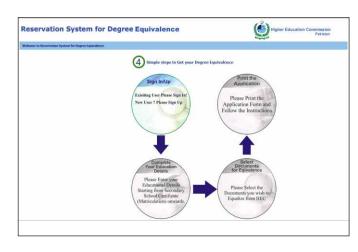
Online Reservation Systems for Degree Equivalence

HEC introduced an online reservations system for degree attestation in 2009, whereby applicants seeking attestations of their original degrees and transcripts are facilitated to apply online. A dire need for a similar kind of online service to applicants seeking equivalence status of their degrees was also felt, especially for those who have acquired their degree from abroad. The plans are in place to bring these applicants in the realm of same online application system as to provide convenience to applicants seeking such services from HEC.

Development Highlights

- Online application has been developed for applicants seeking degree equivalence which is available at http://des.hec.gov.pk
- The system is fully integrated with the HEC Common Profile and thus allowing applicants to reuse their filled profile credentials while applying for degree equivalence.
- Some of the seats in the Computer Laboratory at the Attestation area have been designated for applicants applying for degree equivalence.
- So far 4,385 applicants have been served through this newly developed online application system for degree equivalence.
- Provisional letter is automatically generated and e-mailed to applicant as soon as the application is reviewed and approved by the competent authority.
- The system offers to maintain as many provisional letters as required in order to issue/ email the appropriate letter to the applicants depending upon their request for degree equivalency.

"Implementation of Campus Management Solution in the Higher Education Institutes has been supplemented by the most advanced Business Intelligence solution to act as decision support system for HEIs, HEC and the Government of Pakistan. The business processes at HEC are also being automated to supplement the efforts being made to facilitate the higher education sector."



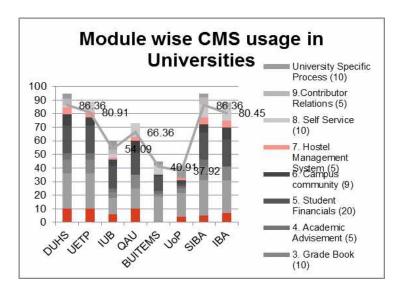
Business Applications

Campus Management Solution

The implementation of Campus Management Solution in HEIs was the requirement not only to streamline the academic processes but also for reliable, single integrated and high-quality data availability. Implementation of the solution has been completed in the pilot phase universities as per the plan. This year focus remained to facilitate endusers by training them to use the system at maximum and reduce working manually.

- Portal access was provided to the students and faculty members to facilitate them through self-service.
- Use of Student Financials and Gradebook module was also targeted this year to automate and streamline these complex academic processes.

- System Upgrade: Campus solution has been upgraded to CS 9.0 with Oracle 10g (in 07 HEIs)/ Oracle 11g (in IBA, Karachi) in the universities this year.
- Hands-on training: University teams have participated in the up-gradation process activity while walking through the system upgrade as on-site training.
- Admission Application Development: After the release of Admission Application Web Services by Oracle, development of Online Admission Application has been completed and deployment is targeted for the spring session admission for two universities (DUHS, Karachi and BUITEMS,



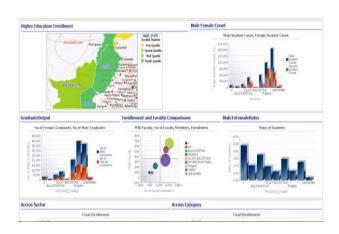
Quetta) and for fall session for the remaining six universities.

• Support and Services: Post-production and Product Warranty Services continued in these HEIs this year, assuring the system availability and functioning as per the university's processes.

Business Intelligence – Dynamic Reporting System

In recent years, demand for Business Intelligence System has significantly increased amid an expanding desire by business to receive all required information in a timely manner without the risk of losing value. Data Reports are vital which can briefly portray where we are today and how we can improve and progress better. Business Intelligence solution illustrates the academic landscape, with spotlight indicators and dashboards. HEC has acquired Oracle Business Intelligence Enterprise solution which provides robust reporting and analytics. The scope of the project covers integration with SAP for decision support reporting from FICO, MM, HRM and PS modules as being used at HEC. The scope also encompasses integration with Microsoft SharePoint Server, Active Director, web portals, indigenous developed applications, and Oracle PeopleSoft Campus Management Solution as to extend the benefit of BI solution to the HEIs.

- Application development for data collection and reporting module relating to Statistics as dealt with by Statistical Information Unit has been completed.
- Delivered application(s) have been signed-off with User Acceptance Test (UAT) as per the scope of work.
- Application(s) maintain data of/ for:
 - Higher Education Institutes (HEIs) Profile
 - Ranking of HEIs (both QS and Subject based Ranking)
 - Affiliated Colleges Data
 - Pakistan Research Repository
 - Dashboards for HEIs data and BI based analytical reporting
- Application development for data collection relating to Finance Budget has also been completed and delivered for User Acceptance Test phase (UAT) as per the scope of work.



- Application covers HEIs annual budget proposal(s), approval, and execution.
- Completion of design phase of the financial reports to be generated from SAP.
- Local and foreign trainings for Business Intelligence Resource Team (BIRT) have been organized for more than 20 resources from various sections of HEC.

Business Processes Automation System (BPAS) towards eHEC

HEC is maintains a number of custom built applications to facilitate different stakeholders. HEC has implemented ERP based on SAP for the backend automation of processes related to finance, procurement, HR and projects, whereas, MOSS is also implemented for providing public interface of HEC through web portal and collaboration portal for internal users. The custom built and indigenously developed applications are also contributing towards processes automation, however most of them operate in isolation and have no integration at system level. These limitations and constraints has pushed IT division to work out a plan for the acquisition of off-the-shelf business process automation system which is scalable, integrated and highly secured. Moreover, the increasing demand of various sections/ divisions of HEC for offering online application system has also encouraged this initiative. The automation including the workflow mechanism is envisaged for all the business processes that are related to various programmes, schemes, projects and other related services that HEC has to offer.

- Acceptance of project proposal of Business Processes Automation System (BPAS) towards eHEC by the World Bank under Technical Assistance as part of Tertiary Education Support Project (TESP).
- Analysis of 265 processes based on the information gathered from various sections/ divisions of HEC and documenting them as to seek appropriate solution for their automation.
- Processes are divided into batches as Batch 1 having 45 processes, Batch 2 having 60 processes, Batch 3 having 50 processes, Batch 4 having 60 processes and Batch 5 having 50 processes.
- Evaluation and assessment of various off-the-shelf Business Process Management (BPM) solutions but suited for HEC, as an activity performed for proof of technology.
- Organizing demos and proof of concept sessions and walking through with the solutions available in this
 domain of software industry.
- Requirement analysis sessions online and offline with products' principal for technical evaluation of BPMs.
- Commencement of project by advertisement of tender as International Competitive Bidding (ISB) as per the World Bank Procurement Rules.
- Technical committee constituted to review and finalize the Standard Bidding Document prior to issuance to potential bidders.
- Pre-bid meeting or bidders' conference has also been conducted while giving potential bidders an opportunity to seek clarifications prior to bid submission.

"HEC Web Portal has emerged as the most visit web portal of Pakistan having 28 million hits per month. The web portal has also evolved in terms of technology and features to offer more dynamic and user-oriented information portal. The introduction of Scholarship Portal in addition to earlier launched Job Portal for higher education sector has truly emerged as a gateway to higher education sector in Pakistan."

Information Portals

HEC Web Portal – Gateway to Higher Education in Pakistan

National Higher Education Web Portal of Pakistan is one of the most visited web portals of Pakistan with about 28.0 million hits per month. The portal is truly a gateway of higher education opportunities in Pakistan and abroad as well. The web portal has undergone a facelift with the aid of Microsoft components and provides much more detailed workflow methodology for content endorsement and publishing using highly integrated content management system. HEC web portal has evolved in terms of technology and feature sets it offers to make it more dynamic and user-oriented information portal meeting the challenges in this information age.

Development Highlights

- The web portal was again revamped utilizing the latest Microsoft Office SharePoint Server technology while providing enhanced workflow mechanisms, documents and images repository, lists, web parts interfacing/integration with 3rd party web-based systems.
- The major transformation that has taken place is consolidation of similar business functions and schemes at a single interface, and lessening the navigational steps to reach to desired information.
- Navigation structure has brought most viewed, searched and visited pages on the main page to facilitate users with easily reaching the desired information.
- The web portal focuses on providing visibility to public oriented functions of the higher education commission, viz. scholarships and fellowships, attestation services, research support, quality assurance,

finance and development, learning innovation, statistics and report, curricular/co-curricular and sports.

- All the leaf-level pages relating to schemes of various programs and initiatives have been transformed to standard structure with menus defining sections for Introduction and Objectives, Eligibility Criteria, How to Apply, Financial Support, Terms and Conditions, Downloads, Related Documents, FAQs, and Contact Us.
- In addition to other changes on the web portal, the pages relating to HEC Regional Centres and the services offered there have been created.



HEC Scholarship Portal

The Higher Education Commission has also embarked upon a series of programmes to develop the human resources of the country. HEC provides much needed impetus to the academia by offering indigenous as well as foreign PhD scholarships to both faculty members and students. With an objective of reinforcing universally accepted principle of excellence in academia, HEC has designed a number of scholarship and fellowship

schemes, addressing all disciplines as to meet effectively the national needs. Realizing the general interest in these scholarship schemes from the people all across the country and enormous number of applications HEC deals with, HEC had introduced online application submission against the scholarship in early times. However, online submission of applications only without having the internal processes and workflow automated did not turn out as effective or productive as needed while dealing with thousands of applications against a single scheme.

Development Highlights

- A new Scholarship Portal has been launched this year.
- The Scholarship Portal offers schemes launched by HEC as well as by the universities under their respective human resource development programmes.
- The Scholarship Portal conforms the Scholars Lifecycle Management System through which the scholar maintains a single Common Profile with HEC and the same is used by applicants to apply against any of the online services which HEC has to offer, viz. degree attestation,



- equivalence, scholarships and fellowships, jobs in higher education sector, research grants, etc.
- So far two scholarship schemes have been announced through this Scholarship Portal and there has been more than 25,000 applications submitted against these opportunities.
- The Scholarship Portal is available at http://scholarships.hec.gov.pk/ which has the global visibility and accessibility.

"The tools and services acquired and/ or developed by HEC for the higher education institutes have been playing significant role in achieving the objectives of HEC ICT strategy of creating en abling environment at the higher education institutes across the country."

Academic Tools

Turnitin – Eradicating Plagiarism from Scholarly Publications

HEC is committed to eradicating plagiarism from higher education institutes. For this, all public sector universities have been provided with campus version of plagiarism detection solution, named Turnitin. This online service is available at http://www.turnitin.com and 700 licenses for each of the universities/ institutes have been provided to teaching faculty, post graduate students and researchers in order to address the issue at the grass root level.

Development Highlights

 Turnitin services have now been introduced as supplementary service of PERN along with others and named Packaged Digital Resources. Resultantly the Turnitin services are now available to all the HEIs,

whether public or private, having acquired PERN services.

- Latest version of the solution as Turnitin2 has been introduced to all HEIs.
- Turnitin2 offers new features like ETS e-Rater (Essay Rater), PeerMark and GradeMark as to provide integrated solution of WriteCycle Collaborative Writing and Smarter Grading.

- Educators can check students' work for improper citation or potential plagiarism using Turnitin Originality Checking by comparing it against continuously updated databases.
- This helps instructors save time spent on assessing written work and marking it accordingly because through GradeMark all common comments are already available in button format and can be dragged and dropped on the text.

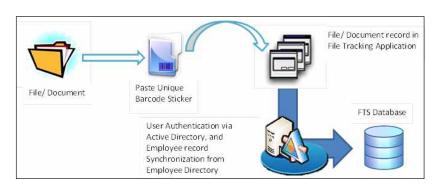
Top HEIs by Usage	Instructors	Students	Submissions
NUST	330	4873	11,148
UAF	285	301	13,066
UoP	275	906	10,449
QAU	208	78	4,390
CIIT	181	409	9,811
GCUL	179	197	3,459
KP AU	178	94	3,006
DUHS	167	17	1,728
GCUF	161	919	4,858
NUML	159	150	5,574

• e-Rater is the same service as being used by the Educational Testing Service (ETS) for last 10 years for assessing essays written by the candidates who appear in GRE and TOEFL exams. It is one of the reliable tools and helps non-native English speaking students.

File Tracking System – Improving Academic Administration

File or Document Tracking and Management System is designed to automate legacy business processes relating to internal or external communication as well as file movement within an organization. The system provides the users/ employees with the systematic application that reduces the user valuable time to search and track a file/ document. This meets the requirements that work on the central repository concept of record

maintenance and retrieval as per the needs. The issues which have been proved to be a major bottleneck in the growth and efficiency in the business processes of most of the public sector organizations have now been dealt with through the introduction of File/Document Tracking System. The system has been in operation at HEC since 2008.



- A new version of File/ Document Tracking System has been developed using the latest available technology platform of .Net.
- The tools has now emerged as an application product by generating binary files which can be deployed in any environment.
- The new version of the application has now been deployed and made operational not only at other government offices and secretariat but at the higher education institutes as well.
- Following are the few organizations currently benefiting or are in process of deployment to benefit from this indigenously developed tool to meet our local challenges;
 - Prime Minister Secretariat, Islamabad
 - Governor Secretariat, Peshawar
 - FATA Secretariat, Peshawar

- Karakuram International University, Gilgit
- Sukkur Institute of Business Administration, Sukkur
- KP University of Engineering and Technology, Peshawar
- Bahria University, Islamabad
- o International Islamic University, Islamabad

Attendance System - Helping Address Governance Issues

RFID based Access Control and Attendance System is used to allow access and mark the attendance electronically using 125 KHz RFID Card on the RFID Card Readers installed at the entrance and exit point of a building. The web based Attendance Software is used to monitor the employee's attendance marked through RFID Employee Card. Access to view the attendance reports is available to all users at HEC, however the reporting structure is in hierarchal model, whereby the seniors can see the attendance of the subordinates working in person's section/ division. This ensures the privacy of information personal to people.

Development Highlights

- Issuance of RFID based employee cards to newly inducted staff, internees, resident engineers, and also as replacement to existing employees.
- Extension of RFID system to HEC Regional Offices in Peshawar, Lahore and Karachi, whereas the installation in Quetta is in process.
- Installation of similar system at the PERN PoP sites in 11 locations as to ensure the security of these sites as well using the same RFID 125 KHz Proximity Card Systems as being used at HEC offices.
- Development and provisioning of additional reports as to have decision support system available to HEC,
 viz.
 - Weekly Performance Report containing exceptions criteria and total time spent
 - Executive Summary Report defining late arrivals and early departure of HEC employees
 - Average Time Report defining the time spent by employees averaged over a defined period
 - Employee Leaves Report detailing the number of leaves availed and leftover.
- Signing of SLA with the vendor for the smooth functioning of Attendance and Access Control System across all the HEC offices and PERN PoPs.

Consultancy and Support Services

HEC has always been supportive to the universities/institutes and other government organizations both at federal and provincial levels. The technical assistance and/or consultancy services were extended as to support them in their efforts of uplifting the overall ICT services they have to offer to their stakeholders. The ICT infrastructure assessment surveys of the higher education institutes were also conducted in order to provide necessary guidance as deemed appropriate for further expansion plans.

"For support and consultative services, mostly the universities are visited, surveyed, issues are identified, action plan(s) are suggested, and subsequently a detailed report is shared with the authorities of the universities".

Consultancy Services provided

- University Grants Commission, Bangladesh
 - Participated and shortlisted in the tender advertised for Consultants to provide services for the acquisition of solution for e-Management HEMIS project under the World Bank's Higher Education Quality Enhancement Project (HEQEP).
- Prime Minister Secretariat, Islamabad
 - Implementation of File/ Document Management System
- · Senate of Pakistan, Islamabad
 - Technical support to Senate Library while facilitating them with Digital Library
- Benazir Income Support Programme (BISP), Government of Pakistan
 - Extended expertise and shared experiences in the tender advertised for the video conferencing project launched by the BISP.
- National Talent Pool, Ministry of Education and Training
 - Provision of scholars and graduates data for the President's Programme for Care of Highly Qualified Overseas Pakistanis (PPQP)
- Governor Khyber Pakhtunkhwa Secretariat, Peshawar
 - Implementation of File/ Document Management System
- FATA Secretariat, Peshawar
 - Preparation of FATA ICT Policy 2012 and FATA ICT Policy Action Plan
 - Implementation of File/ Document Management System
- District Commissioner Office, Rawalpindi
 - Assessment of Resource Center Murree for the ICT setup along with PERN connectivity and video conferencing facility
- Holy Family Hospital, Rawalpindi
 - PERN connectivity and integration of video conferencing setup with the HEC's Video Conferencing Network for activities relating to Telemedicine
- COMSTECH, Islamabad
 - ICT infrastructure assessment for provisioning of PERN connectivity

Technical Assistance to HEIs

During this year, a number of higher education institutes were visited for the assessment of their existing network and conducting gap analysis. Following HEIs were provided with necessary guidance/ suggestions to overcome the problems being faced by them and/ or in preparation of project proposals for further expansion in ICT services.

- Pakistan Institute of Fashion Design, Lahore
- University of Gujrat, Gujrat
 - Assessment of ICT Infrastructure to provide guidelines for smoothening and streamlining the ICT Infrastructure and Services.
- Kinnaird College for Women University, Lahore
 - Technical assistance in the tender process relating to ICT infrastructure.
- Balochistan University of IT, Engineering & Management Sciences, Quetta
 - Review of PSDP PC-1 containing ICT component for the improvement of Labs and LAN Infrastructure.
- University of Science & Technology, Bannu
 - Assessment of ICT Infrastructure to provide guidance for an effective LAN setup as to appropriately utilize the newly procured ICT equipment.

- Beacon House National University, Lahore
 - Review of PSDP PC-1 containing ICT component for the establishment of ICT Infrastructure at the new campus of university.
- · University of Balochistan, Quetta
 - Assessment of ICT Infrastructure and to conduct gap analysis in order to take appropriate measure for the sustainability of ICT facilities at the university.
- Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah
 - Assessment of ICT Infrastructure as to provide guidelines for the preparation of PSDP PC-1 appropriate for the university.
- Balochistan University of Engineering & Technology, Khuzdar
 - Replacement of Cisco router with Huawei NE20 while configuring it to increase bandwidth from 16Mbps to 34Mbps.

ICT Survey of HEIs

- Preparation of comprehensive questionnaire for conducting ICT survey of both public and private sector
 HEIs for the assessment of ICT status while identifying the gaps as well as determine growth trend in ICT
 facilities at HEIs for future planning.
- Data collection from five HEIs as per the questionnaire prepared to establish the ranking of HEIs in the realm of ICT facilities, as a test run.

Capacity Building

Pakistan Education and Research Network, HEC's flagship project provides premium internet, intranet and R&E services to the higher education institutions. While realizing the significance of this project and the need of highly skilled work force for its long-term endurance, PERN believes in capacity building of technical resources of higher education institutes through trainings.

"In person and remotely managed trainings for the focal persons of all the universities are arranged as Master trainers for extending trainings in-house to their respective universities/ institutes' faculty and post graduate students".

- Eleven technical resources from both public and private sector HEIs and seven resources from PERN were given a week long training at IntERLab, Asian Institute of Technology, Bangkok – Thailand under the PERN HRD programme for partner HEIs.
- Network Engineers/ Managers/ Administrators being the PERN focal person of selected 22 HEIs were given technical training on Campus Network Design at Hanoi, Vietnam under PERN HRD program in collaboration with IntERLab, Asian Institute of Technology being the authorized training partner of TransEurasia Information Network (TEIN).
- Training to technical resources of HEIs participating in the IPv6
 Research Test-bed project initiated by PERN on BGP IPv4/ IPv6
 at IntERlab, Asian Institute of Technology, Bangkok Thailand
 in collaboration with TransEurasia Information Network (TEIN3)



- Refresher training course was held at HEC Head Office, Islamabad for all focal persons of HEIs to participate in the 2nd Technical Training on Video Conference Setup. This 3-day long training workshop included various aspects of video conferencing setup, management and operations were introduced to participants and hands-on training was also provided.
- Participation of PERN Incharge for South region after getting an award of fellowship from Asia Pacific Advanced Network (APAN) for attending 22nd Asia Pacific Advance Network meeting held in February 13-17, 2012 at Chiang Mai, Thailand.



Refresher training course on Video Conferencing system setup and operations, HEC Islamabad, February 2012



Participation of PERN in Bi-annual meeting of Asia Pacific Advance Network at ChiangMai, Thailand, February 2012



Pakistan University Sports Board (PUSB) deals with the Sports matters for tertiary level (both male and female students) of the universities and institutes of higher learning of the country. It organizes sports activities for students of universities and their affiliated colleges in the shape of Intervarsity Championships in close collaboration with the universities of Pakistan and participates in the national championships. The basic objective of HEC Sports division is to provide opportunities to student players for development of human abilities both physical and mental through participation in Sports activities by maintaining transparency and standard in university sports.

Organization of HEC Intervarsity Sports Championships 2011-12

For the first time in the history, Pakistan University Sports Board has introduced seven men (Baseball, Cycling, Karate, Netball, Skiing, Teakwando, Wushu) and 12 women (Baseball, Cycling, Judo, Karate, Netball, Rifle shooting, Skiing, Swimming, Teakwando, Wushu and Squash) events in the Intervarsity Championship in one year and organized a total of 54 (32 Male and 22 Female) sports championships during the year, in which 813 teams participated (623 Male and 190 Female), 86 universities took part in the men and 33 universities in women championships, compared with 51 universities participated in Male and 34 in Female championships during year 2010-11.

All events were a big success and result of hard work of Sports Directors of the universities. Standard of players was high and they showed outstanding performance during the National Championships. Events were organized under the supervision of representatives of National Sports Federations. All the respective Federations provided their full support in holding of the HEC intervarsity Championships. Ski Federation on short notice provided their full facilities, equipment and coaches for training and holding of the Intervarsity Championships. Pakistan Sports Board extended its full cooperation and support in making the HEC Intervarsity Championships a success by providing its facilities mostly on gratis basis. One major factor which limited the participation was the financial crisis faced by the universities.

Male events were organized by different universities all over Pakistan thus providing opportunity for the students to become familiar with the culture of that area. Schedule of the Intervarsity Championships was finalized, keeping in view the schedule of National Championships. Detail of different men events, organizing university, date of championship and first two university positions are given below:

S. No.	Event	Organizing University	Date	Winner University	Runners Up
1.	Judo	CIIT, Islamabad	24.10.11	University of Central Punjab (UCP), Lahore	Islamia Bahawalpur
2.	Hockey	Bahria University, Islamabad	30.10.11	UCP	GCU, Lahore
3.	Football	CIIT, Islamabad	15.11.11	GCU, Faisalabad	University of Karachi
4.	Wrestling	University of Central Punjab, Lahore	26.11.11	UCP	Superior University
5.	Rowing	University of Lahore	11.12.11	University of Lahore	UCP
6.	Bodybuilding	University of Central Punjab, Lahore	20.12.11	UCP	University of Lahore
7.	Weightlifting	Superior University, Lahore	14.01.11	UCP	Superior University
8.	Rugby	University of Lahore	20.01.12	University of Lahore	BZU, Multan

S. No.	Event	Organizing University	Date	Winner University	Runners Up
9.	Ski	University of Swat, Swat	01.02.12	KIU, Gilgit	University of Lahore
10.	Basketball	NUST, Islamabad	08.02.12	UCP	University of Lahore
11.	Kabaddi	University of Sargodha, Sargodha	10.02.12	UCP	University of Lahore
12.	Badminton	University of Punjab Lahore	10.04.12	UCP	University of the Punjab
13.	Squash	Preston University, Islamabad	13.02.12	GCU, Lahore	University of Karachi
14.	Handball	University of Sargodha	21.02.12	University of Sargodha	UCP
15.	Rifle Shooting	University of Lahore	22.06.12	University of Lahore	UCP
16.	Athletics	CIIT, Islamabad	12.03.12	UCP	GCU, Lahore
17.	Tennis	UET, Peshawar	22.03.12	University of Karachi	UCP
18.	Boxing	University of Karachi	17.03.12	University of Karachi	UCP
19.	Cricket	Quaid-i-Azam University, Islamabad	05.03.12	University of Karachi *	UCP
20.	Netball	Sindh Agriculture University, Tandojam	24.06.12	University of Karachi	University of Lahore
21.	Gymnastics	University of Karachi	20.04.12	University of Karachi	GCU, Lahore
22.	Table Tennis	International Islamic University, Islamabad	29.03.12	University of Lahore	IoBM, Karachi
23.	Volleyball	NUST, Islamabad	26.04.12	University of Peshawar	KPK Agricultural University, Peshawar
24.	Baseball	BZU, Multan	05.04.12	BZU, Multan	UCP
25.	Karate	BZU, Multan	12.04.12	Superior University	University of Karachi
26.	Teakwando	BZU, Multan	10.04.12	UCP	UVAS, Lahore
27.	Cycling	Superior University, Lahore	20.04.12	Superior University	University of Lahore
28.	Wushu	University of Karachi	26.06.12	University of the Punjab	Gift University
29.	Mountaineering	International Islamic University, Islamabad	02.05.12	IIU, Islamabad	NUST, Islamabad
30.	Chess	UET, Taxila	23.05.12	UMT, Lahore	UET, Lahore
31.	Swimming	University of the Punjab, Lahore	24.06.12	UCP	University of the Punjab
32.	Water Polo	University of the Punjab, Lahore	26.06.12	UCP and University	of the Punjab







Top three winning teams of 1st Intervarsity Ski Championship 2010-11

All the 22 HEC Intervarsity Women Championships were held in Islamabad and Directors Sports of Rawalpindi and Islamabad region left no stone unturned for holding of these championships in a befitting manner, in spite of serious constraints of accommodation and playing facilities. Detail of organizing University, date of Championship and first two position University are:

S. No.	Event	Organizing University	Date	Winner University	Runners Up
1.	Hockey	Quaid-i-Azam University (QAU), Islamabad	25.11.11	University of the Punjab	Islamia University, Bahawalpur
2.	Handball	NUST, Islamabad	28.11.11	University of the Punjab	LCWULahore
3.	Rowing	UET,Taxila	13.12.11	University of the Punjab	IIU, Islamabad
4.	Badminton	NUST, Islamabad	24.12.11	University of the Punjab	LCWU, Lahore
5.	Basketball	Bahria University, Islamabad	27.01.12	University of the Punjab	LCWU, Lahore
6.	Netball	NUST, Islamabad	04.01.12	University of the Punjab	LCWU, Lahore
7.	Judo	QAU	16.01.12	Frontier Women University	Islamia University, Bahawalpur
8.	Skiing	IIU, Islamabad	25.01.12	University of the Punjab	IIU, Islamabad
9.	Cricket	QAU	02.02.12	University of the Punjab	BZU Multan
10.	Karate	QAU	16.02.12	University of the Punjab	University of Karachi
11.	Teakwondo	QAU	17.02.12	University of Karachi	Shaheed Benazir Bhutto University
12.	Wushu	QAU	18.02.12	Frontier Women University	Gift University
13.	Athletics	CIIT, Islamabad	12.03.12	University of the Punjab	LCWU, Lahore
14.	Football	NUST, Islamabad	01.04.12	Shaheed Benazir Bhutto University	University of Sargodha
15.	Baseball	QAU	24.06.12	University of the Punjab	Islamia University, Bahawalpur
16.	Volleyball	Arid Agriculture University, Rawalpindi	22.05.12	University of the Punjab	GCŲFaisalabad

S. No.	Event	Organizing University	Date	Winner University	Runners Up
17.	Tennis	Fatima Jinnah Women Uniersity, Rawalpindi	10.04.12	University of the Punjab	University of Karachi
18.	Squash	Preston University, Islamabad	17.05.12	University of the Punjab	Islamia University, Bahawalpur
19.	Table Tennis	Fatima JinnahWomen University	15.04.12	University of Karachi	LCWU, Lahore
20.	Cycling (Lhr)	UET,Taxila	23.04.12	University of the Punjab	LCWU, Lahore
21.	Rifle Shooting	NUST, Islamabad	22.06.12	GCU, Lahore	University of the Punjab
22.	Swimming	Bahria University, Islamabad	26.06.12	IIU,Islamabad	Iqra University



Players in action during the HEC Intervarsity Women Volleyball Championship held at University of Arid Agriculture



Mr. Majid Jahangir, former Cricket captain was the Chief Guest on the Final Match of Intervarsity Women Cricket Championship

Prime Minister Sports Festival 2012

Ministry of Inter-Provincial Coordination for the encouragement of youth towards Sports, approved a special grant for holding of Prime Minister Sports Festival in which students of universities were eligible to take part. Special cash award was announced for the winners as incentive. i.e. Rs 10,000, 7000 and 5000 for the winners of the first three position holders athletes per event, over and above the cash prize which HEC gives to the medalist players. A special grant of Rs. 2.665 million to HEC for holding the athletics events was also approved, which has not been received yet. To further facilitate HEC in holding of the Prime Minster Sports Festival, Pakistan Sports Board extended all its sports facilities and accommodation to HEC free of cost for organizing the eight HEC intervarsity Championships under the umbrella of Prime Minister Sports festival 2012 at Pakistan Sports Board, Islamabad. This was a joint venture of HEC, Pakistan Sports Board and Ministry of Inter Provisional Coordination.

Events which were held under the festival were Swimming (M & W), Water Polo, Netball, Shooting (M & W), Wushu, Baseball (W) & Athletics (M & W). Events were held from June 22-27, 2012. The venues were provided by Pakistan Sports Board.



Players in action, during the 1st HEC Intervarsity Women Baseball Championship



Federal Secretary IPC, Mr. Anis Ul Husnain Musvi giving away the trophy



Mir Hazar Khan Bijrarani, Federal Minister for Inter Provincial Coordination addressing on the occasion of closing ceremony



Fight during Intervarsity Wushu Championship at the closing ceremony of the Prime Minister Sports Festival



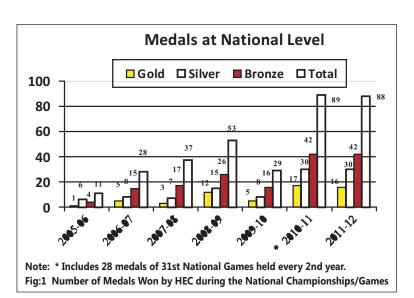
Dr. Riaz Hussain Qureshi, Adviser (HRD) HEC is giving trophy to University of Karachi Netball winning team

Federal Minister for Inter Provincial Coordination Mir Hazar Khan Bijarani highly appreciated the participation of players from Balochistan. Mir. Hazar Khan Bijarani, Federal Minister for Inter Provincial Coordination was the chief guest at both opening and closing ceremonies

Overall top three winning universities of the HEC Intervarsity Championships 2011-12 of female and male events are:

Position	Women	Men
1 st	University of the Punjab, Lahore	University of Central Punjab, Lahore
2nd	Lahore College for Women University, Lahore	The University of Lahore, Lahore
3 rd	Government College University, Faisalabad	University of the Punjab, Lahore

Participation at National Level Competitions Pakistan University Sports Board/HEC is affiliated with various National /International Sports bodies including Pakistan Olympic Association (POA) and Pakistan Sports Board (PSB). These national sports bodies are responsible for the promotion of sports in the country through national sports Federations/Boards/ Associations, These units organize national level competitions in their respective sports every year and all affiliated units including HEC/ PUSB participate in these competitions. Pakistan Olympic Association organizes National Games every two years. HEC team is selected on the basis of



performance shown by the students during the Intervarsity championships. Training camps for the selected players were organized prior to participation in the National Championships. HEC participated in 25 male and 14 female National Championships during year 2011-12 and won 88 Medals (16 Gold, 30 Silver and 42 Bronze). Number of Medals won over the years is as shown in Fig 1.

Detail of Medal Position

MEN

S. No.	Event	Gold	Silver	Bronze	Total
1	21 st National and 2nd National Junior Judo Championship (M) 27-30 October, 2011 at Peshawar	0	2	1	3
2	National Athletics Ranking Championships (Men) 3-4 November, 2011 at Islamabad.	4	0	5	9
3	29th National Rowing (Men) Championship 15-18 December, 2011 Khanpur Dam, Khanpur.	0	2	6	8
4	7th NBPAll Pakistan Boxing Tournament 12th -14th December, 2011 at Peshawar	0	1	1	2
5	National Mountaineering Men Championship	0	1	0	1
6	National Beach Wrestling Championship 28-29 December, 2011 Lahore	0	1	1	2
7	60th Mr. & Jr. Mr. Pakistan and National Bodybuilding Championship 21-22 January, 2012-Lahore	1	0	3	4
8	34 th VELO National Boxing Championships 23-27 April, 2012 Lahore	0	1	3	4
9	National Junior Wrestling Championship 1-3 May, 2012	2	2	3	7
10	8 th Korean Ambasador National Taekwondo Championship 11-16 May, 2012	0	0	1	1
11	National Weightlifting Championship 18-20 May, 2012	1	1	0	2
12	44th National Athletics Championship 17-19 May, 2012	0	0	2	2
13	Subh-e-Nau National Tennis Championship 27 th May to 3 rd June, 2012 - Islamabad		0	1	2
14	59th National Wrestling Championship – 26-28 June, 2012- Peshawar	0	0	2	2
	Total	9	11	29	49

WOMEN

S. No.	Event	Gold	Silver	Bronze	Total
1	10 th National (W) Volleyball Championship 26 -29 July, 2011 at Islamabad	0	1	0	1
2	7th National (W) Karate Championship 6 9 October, 2011 -Lahore	1	0	0	1
3	National Athletics Ranking Championships (Women) 3-4 November, 2011 at Islamabad	4	2	6	12
4	10th National Women Handball Championship 11-14, December, 2011 at Lahore	0	1	0	1
5	10th National Women Netball Championship 6-9, February, 2012 at Lahore	0	0	1	1
6	7th National Cricket Women Championship 9-24 March, 2012 – Islamabad	0	1	0	1
7	5th National Women Judo Championship 7-9-April, 2012 – Rawalpindi	0	3	2	5
10	16 th National (Women) Basketball Championship – 27th April to 2nd May, 2012 - Islamabad	0	1	0	1
11	10 National Cycling Championship 1-3 May, 2012	2	6	0	8
12	8th Korean Ambassador National Taekwondo Championship 11-16 May, 2012		2	0	2
13	44th National Athletics Championship-17-19 May, 2012, Islamabad	0	2	4	6
	Total	7	19	13	39

Organization of National Sports Championships

HEC organized 16th National Women Basketball Championship in collaboration with Pakistan Basketball Federation from April 27 to May 1, 2012 at Hamidi Hall, Pakistan Sports Complex, Islamabad and Sports Gymnasium, Bahria University, Islamabad. Opening ceremony and round matches were held at Hamidi Hall, Pakistan Sports Complex, Islamabad while sem-ifinal/final were played at Sports Gymnasium, Bahria University, Islamabad.



Opening match between Islamabad & Punjab: group photo with Mr. Anees-ul-Husnain Musvi Secretary IPC, Dr. S. Sohail Naqvi Executive Director HEC, Mr. Ameer Hamza Gillani DG PSB, Mr. Ahmed Yahya Khan DG Sports HEC

2nd Basketball teams of Sindh, Punjab, KPK, Islamabad, WAPDA and HEC participated in the subject Championship. Final match was played between HEC and WAPDA, which was won by WAPDA after a tough competition. HEC got 2nd position and Islamabad team got 3nd position. Mr. and Mrs. Asif Bajwa, President Pakistan Basketball Federation were the chief guest at closing ceremony. Final match was live telecast by PTV, whereas semifinal matches were also telecasted.

International Participation

Participated in the 26th World University Games 2011 Shenzhen

University Games are held after every two years under the auspices of Federation International du Sport Universitaire (FISU). The 26th World University games were held in China from 12th-23rd August, 2011 in the city of Shenzhen, China. For the first time in the FISU history, 10624 players from 151 countries participated in the 26th Universiade. However, record participation of countries is 171 Countries in 2003 Universiade. 1.2 million volunteers were prepared and trained for assistance in organization of the Universiade.



View of the stadium during the opening ceremony



HEC contingent at Islamabad Airport prior to departure for Shenzhen



National Antem of Pakistan being played at the flag hoisting ceremony at the Universiade village in August 2011

HEC team participated in the four events namely Athletics, Judo, Weightlifting and Swimming. Players were selected on the basis of their performance during the National Championships i.e. Gold or Silver Medal in the National Championship. 16 members contingent (9 players + 7 officials) was led by Mr. Ahmad Yahya Khan, Director General (Sports), HEC.

Best possible facilities and environment for training were provided in Pakistan and opportunity was also provided for at least five days training at the venue in China.

Names of players and their performance is as under:

S. No.	Name of Player	Event	Achievement of National Games/ Champ. 2010	Performance 26th World Universiade Games time/Weight	Remarks 26 th World Universiade
1.	Mr. Imran Islmail, UCP	Weightlifting (56 Kg)	Silver (NGs) 203 Kg	10 th Position out of 12 players. Lifted 203 Kg. Weight 168-273	Lifted same weight in Shenzhen.
2.	Mr. Yasir Ali UCP	Weightlifting (62 Kg)	Gold Medal (Champ) 224 Kg	10 th Position out of 13 players. Lifted 220 Kg Weight 212-310	Lifted 4 Kg less weight in Shenzhen.
3.	Mr. Habib Asghar UCP	Weightlifting (77 Kg)	Silver (NGs) 265 Kg	19th Position out of 20 players. Lifted 243 Kg Weight 243-337	Lifted 22 Kg less weight in Shenzhen Got last position.
4.	Mr. Haroon Shoukat UCP	Weightlifting (105 Kg)	Gold (NGs) 300 Kg	20th Position out of 21 players. Lifted 305 Kg Weight 253-400	Improved 5 Kg weight in Shenzhen
5.	Mr. Mustaqeem Butt, GCJ, Lahore	Weightlifting (+105kg)	Silver (NGs) 312 Kg	15th Position out of 16 players. Lifted 305 Kg Weight 305-412	Lifted 7 Kg less weight in Shenzhen Got last position.
6.	Mr. Sikandar Khan UCP	50 M Freestyle Swim.	Gold (NGs) 26.09 Sec	52 nd Position out of 62 players. Time is 26.66 sec Time range (22.37- 30.99)	Taken more 0.57 Sec. in Shenzhen
		100 M Freestyle	Gold (NGs) 56.74 Sec	-	Did not take part.
		50 M Butterfly	Silver (NGs) 28.07	55 th Position out of 65 players. Time is 27.86 sec Time ranged (23.76 - 36.07)	Improved 0.21 Sec. in Shenzhen
7.	Ms. Nighat Kausar University of the Punjab	Athletics (Long Jump)	Silver (Champ) 5.10 meter	27 th Position out of 30. Jumped 4.89 meter. Time ranged 6.41 to 4.42 m.	Did not qualify for the final Jump.
8.	Mr. Waheed Ud Din Superior University	Judo (66 Kg)	Silver (NGs)	Contest Time: 22 Sec	Lost to Shershan, Belarus.
9.	Mr. Ghulam Farid UCP	Judo (60 Kg)	Silver Medal 11th South Asian Games	Contest Time: 59 Sec	Lost to Merebashvili Georgia.



Group Photo of HEC Contanigent at the Flag Hosting Ceremony Venue



Mr. Haroon Shoukat Weight lifter 105 kg category, Lifting 305 kg Weight

Athletics Long Jump

Nighat Kausar got 27th position out of 30 competitors by covering 4.89 eters, but keeping in view our regional and Islamic Countries, her performance is satisfactory.

Meetings

During the year 2011-12, four Important meetings were held. Details of which are as under:-

i. 45th Sub Committee Meeting

45th Sub Committee Meeting was held on 8th and 9th September, 2011 in the Learning Innovation Meeting Room, HEC, H-8 Islamabad. Mr. Ahmed Yahya Khan Director General HEC Sports Division chaired the meeting. Minutes of which were circulated to all universities.

ii. 13th Meeting of PUSB

13th PUSB Meeting was held on November 4, 2011, whereas 12th PUSB meeting was held in November 2007. As per constitution it is mandatory to hold at least one meeting of PUSB in a year. 13th PUSB meeting was chaired by Dr. Javaid R. Laghari Chairman, Pakistan University Sports Board, while meeting was attended by Executive Committee of Vice Chancellors of Public Sector Universities and Private Sector Universities were represented by the Vice Chancellor/Rectors of Universities whose team performance in different Sports events was outstanding.





Dr. Javaid R. Laghari, Chairman PUSB/HEC and Dr. Sohail H. Naqvi Executive Director HEC, during the 13th PUSB Meeting

iii. 1st Meeting of the Technical Committee

1st meeting of the Technical Committee was held in January, 2012 at Mural Hall HEC. Meeting was chaired by Director General Sports HEC and recommendations were finalized for amendments in the Pakistan University Sports Board Constitution, which were done after a lapse of 22 Years. Amendments were also proposed in the formula for award of General Trophy.

iv. 14th Meeting of PUSB

14th PUSB Meeting held in March, 2012 at Margalla Hotel Islamabad was attended by 103 Head/VC's/Rectors of both Public & Private Sector Universities, during which amendments in the PUSB Constitution & Point score formula for award of General Trophy were approved.

Financial Support to Outstanding Sports Persons

HEC awards cash Prizes and Sports-Scholarships for encouragement to outstanding student players and officials. An amount of Rs. 3.00 million was awarded to the outstanding Players and Officials as prize money and Scholarship during the year under report.

Medal	Number	Amount (Rs. in million)
Scholarship to Players	147	1.495
Prize Money to Student Players	103	1.058
Prize Money toManagers/Coaches	25	0.447
Total	275	3.000

Prize Money for the first three position holders of the Intervarsity Championship has doubled, a special incentive of Rs. 300,000/, Rs. 200,000/ and Rs. 100,000/- has been introduced for the Director of Sports and its staff for the Overall first three position holder Universities respectively both for Male and Female events separately, 50% of the amount will go to Director of Sports and remaining will be distributed among the Supporting staff of Sports division of the winning University.

Finance

The core function of HEC Finance Division is to generate, arrange and manage financial resources for the country's higher education particularly public sector universities, degree awarding institutes and centres. This Division shares information and provides assistance for crafting of a "resource base" for higher education sector, with the aim to transform universities and institutions of higher learning into engines of socio-economic growth and development. Finance Division is responsible for obtaining recurring Grant from the Federal Government for around 116 higher education institutions, HEC Secretariat, and its national programmes. It also arranges funds from other international and multilateral donors such as World Bank and USAID in the form of budgetary/financial support and grant-in-aid; budgeting of recurring grants to the HEC and federally funded universities; and timely disbursement of all recurring and development grants to the federally funded universities and degree awarding institutions of the country.

The Division also arranges foreign exchange requirements of different development projects and recurring programmes and plays an integral part to remit foreign currency abroad efficiently for Pakistani scholars studying abroad in multiple disciplines. All such tasks are performed professionally by the three sections of Finance Division namely Finance Planning Section, Finance Operation Section and Business Automation Wing/SAP Competence Centre. During the Financial year 2011-12, HEC faced a lot of challenges including financial constraints/shortfall. Finance Division, Government of Pakistan cut the Recurring Grant of Rs. 2.613 billion of higher education sector while, 15 per cent salaries were enhanced by the Government. A brief overview of activities carried out by Finance Division, HEC during 2011-12 is presented below whereas detail is provided in the subsequent sections of this report.

- Ministry of Finance initially allocated Rs 26.887 billion as recurring grant for the year 2011-12, which was transferred to the public sector universities, institutes, Centres and also for national programmes. Simultaneously, a well-structured case was presented before the Finance Minister in the 10th VC Committee meeting to resolve funding issues of public sector universities and to bridge the resource gap generated due to additional impact of 50 per cent & 15 per cent increase in salary and pension announced by the Federal Government. Subsequently, a representative group of Vice Chancellors along with HEC team met Secretary Finance to apprise him about the financial crises being faced by the universities. Eventually, Ministry of Finance agreed to provide additional grant of Rs. 4.613 billion as a result of the efforts of HEC Finance Division and universities. However, only Rs. 2.00 billion of committed additional grant were released by the Government for public sector universities and institutions during 2011-12.
- The meeting of the sub-Committee of the Commission to review the funding formula of the universities/DAIs was held in May 2012. After deliberation and reviewing all the factors of the formulae, it was decided that the funding formula did not require any change at the moment. However, the minimum and maximum increase in the funding of the HEIs may be changed every year by the sub-committee of the Commission keeping in view the funds available for the HEIs. The New Item Statement (NIS), for the FY 2012-13, already submitted to the Government was with 14 per cent minimum and 22.57 per cent maximum increase on the original allocation of the existing FY.2011-12. But after hectic discussions, it was recommended that NIS may be revised and resubmitted with a minimum 5% and maximum 53.52 per cent increase of the funding of the HEIs. The supplementary grant, if any, provided by the government will also be disbursed on per student prorate basis with some minimum increase.
- Finance Division of HEC is committed to enhancing the capacity of its employees. During 2011-12, 10 employees completed SAP Academy Training conducted by Siemens Pakistan Ltd and three employees passed the Consultant Level Certification Examination conducted by SAP Malaysia.
- During 2011-12, more than 36,000 cases of budgetary allocations, receipts, payment, advances and adjustments were processed in Finance Division, resulting in issuance of 250,340 cheques and bank advices; aggregating payments of Rs 39.247 billion and Rs 38.795 billion receipt and adjustments.

• Tertiary Education Support Programme (TESP)

Finance Division has actively been coordinating resource generating efforts at HEC. For the purpose, several rounds of negotiation were held between the World Bank mission and HEC top management to finalize the programme document of Tertiary Education Support Programme. This project was approved by the Board of the World Bank in March 2011, and signed by the Government of Pakistan on September 22, 2011.

This programme will support the implementation of the Government's higher education development programme as outlined in the second Medium Term Development Framework for Higher Education for 2011-2015, using a Results-Based Financing modality. The project will ensure financial support of US\$300 million to higher education sector in Pakistan for next three financial years. However, the disbursement of these funds is linked to meeting certain targets related to the Government's programme which aims to: (i) ensure fiscal sustainability and effectiveness of expenditure in tertiary education; (ii) improve the quality and relevance of teaching and research; (iii) improve equitable access to tertiary education; and (iv) strengthen governance and management.

A. FINANCE PLANNING SECTION

The Finance Planning Section manages the recurring funds from the Federal Government for onward transfer to the universities, institutions, HEC Secretariat and national programmes. The allocated recurring grants are, thereafter, processed and their releases arranged on quarterly basis from the Finance Division and AGPR, and released to universities after receiving utilization reports from the beneficiaries.

1. Recurring Outlay 2011-12 for the Institutions of Higher Learning

During 2011-12, initially a recurring grant amounting to Rs. 26.887 billion was allocated by the Ministry of Finance which was distributed among universities and institutions as per approved funding formula. This allocation did not include the impact of 50 per cent & 15 per cent increase in salaries amounted by the Federal Government and as a result resource gap was generated in HEIs. Therefore, Finance Division, HEC obtained and compiled necessary information from the universities and institutions and facilitated the Commission to present the case for supplementary grant before the Secretary Finance.

The Government agreed to provide additional grant of Rs. 4.613 billion on account of impact of 50 per cent & 15 per cent salary increase but later on, only Rs. 2.00 billion were released by the Government by June 2012. Apropos to this, during the FY.2011-12, the Government released Rs. 28.887 billion against the commitment of Rs. 31.500 billion. Funding mechanism established by the Finance Planning section of HEC ensures transparency to allocate and transfer funds to HEIs. Distribution of funds for the FY 2011-12 is given below:

Amount in Rs.

Category	B.E. 2011 -12	Revised Allocation 2011 -12	R.E. 2011 -12	B.E. 2012-13
Recurring Grant				
General Universities, Institutes, Colleges	15,467,849,000	18,333,690,000	16,870,170,272	19,075,165,000
Professional Technical Universities, Institutes, Colleges	7,262,980,000	8,594,058,000	7,985,284,010	8,799,454,000
Centres (Others)	4,156,489,000	4,572,570,000	4,031,863,718	4,903,679,000
Grand Total	26,887,318,000	31,500,318,000	28,887,318,000	32,778,298,000

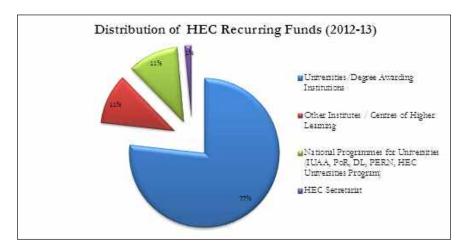
2. Overall HEC Recurring Grant for 2012-13

In response to the submission of NIS in March, 2011 to the Finance Division, Federal Government of Pakistan for the year 2012-13, an amount of Rs. 32.778 billion has been allocated as recurring grant of higher education sector, out of which 87.56 per centhas been allocated to Universities/Institutes/Centres, 11.04 per cent has been allocated for different national programmes to promote research activities and improving standards of higher education institutions, and 1.4 per cent will be used for HEC Secretariat budget. Following table shows category-wise allocation of recurring funds during the financial year 2011-12 and 2012-13, respectively.

Distribution of Recurring Grant

Particulars	B.E. 2011 -12	Revised Allocation 2011 -12	B.E. 2012 <i>-</i> 13	Percentage of Total Allocation 2012-13
(1) Universities/ DAIs	20,602,318,000	24,493,665,000	25,154,000,000	76.74%
Universities/ DAIs (Through Funding Formula)	20,277,318,000	24,168,665,000	24,829,000,000	75.75%
Distance Learning Universities	325,000,000	325,000,000	325,000,000	0.99%
(2) Institutes/Centres / Chairs/TTS	3,110,000,000	3,218,653,000	3,566,000,000	10.88%
Institutes/Centres / Chairs	1,725,000,000	1,833,653,000	1,946,000,000	5.94%
Tenure Track System	1,385,000,000	1,385,000,000	1,620,000,000	4.94%
(3) Promotion of Research	1,970,000,000	2,270,000,000	2,300,000,000	7.02%
Research Programmes including NRPU	900,000,000	1,050,000,000	1,200,000,000	3.66%
Digital Library	620,000,000	770,000,000	900,000,000	2.75%
Pakistan Education Research Network	450,000,000	450,000,000	200,000,000	0.61%

Particulars	B.E. 2011 -12	Revised Allocation 2011 -12	B.E. 2012-13	Percentage of Total Allocation 2012-13
(4) National Programmes for Universities and HEC Secretariat	1,205,000,000	1,518,000,000	1,758,298,000	5.36%
HEC Secretariat	435,000,000	435,000,000	460,000,000	1.40%
Inter University Academic Activity	500,000,000	597,000,000	760,000,000	2.32%
HEC University Programme	270,000,000	426,000,000	478,298,000	1.46%
Technical Assistance Activities under TESP	-	60,000,000	60,000,000	0.18%
Grand Total	26,887,318,000	31,500,318,000	32,778,298,000	



3. HEC Budget and National Programmes for HEIs

A. HEC Secretariat Annual Budget Estimates for the FY 2012-13

Annual budget of Rs. 850.800 million has been prepared for HEC Secretariat for the FY 2012-13. This comprises Rs. 460.000 million of Government grant, Rs. 51.281 million opening balance and Rs. 330.519 million own income. Impact of enhanced salary and pension and revised allowances have also been incorporated in the budget estimates as per notifications of the Finance Division, Government of Pakistan. For 2011-12, approved budget was of Rs. 626.000 million against which the expenditure of Rs. 621.632 million was incurred till June 30, 2012.

b. Annual Budget of National Programmes for Universities

Budget estimates 2012-13 for different programmes being executed under Inter Universities Academic Activities, Promotion of Research, Tenure Track System, National Digital Library Programme, and Pakistan Education Research Network etc. were prepared as per requirements gathered from respective programme officers and finalized to be placed before the HEC Finance Planning Committee in its 10th meeting. The Committee examined and recommended these budget estimates for approval of the

Commission. An overview of revised estimates 2011-12 and budget estimated 2012-13 of these programmes is reflected in the following table.

HEC Programmes	Budget Estimates 2011 -12	Revised Estimates 2011 -12	Budget Estimates 2012-13
Inter Universities Academic Activities	510.500	449.784	888.615
Promotion of Research	918.000	965.548	1,259.451
Digital Library	620.000	715.316	909.683
Pakistan Education Research Network	625.000	620.769	834.931
Technical Assistance under Tertiary Education Support			60.000
HEC, Universities Programmes	261.662	370.862	478.298

c. Tenure Track System

In addition to annual recurring grant, HEC is providing separate funds to HEIs for faculty appointed on Tenure Track System (TTS). During FY 2011-12, 248 additional faculty members were appointed in universities on TTS that raised the total number to 1,304 for which budget amounting to Rs. 1,039.920 million has been released to universities. Category-wise faculty on tenure track system in universities/institutions is depicted in following table:

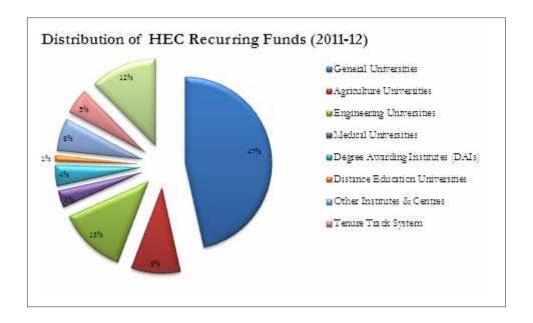
	Faculty on Tenure Track System during 2011-12				
Higher Education Institutions	Professors	Associate Professors	Assistant Professors	Total	
General Universities	80	27	556	663	
Agriculture Universities	36	4	144	184	
Engineering Universities	32	4	72	108	
Medical Universities	0	0	51	51	
Degree Awarding Institutes (DAIs)	9	18	213	240	
Other Institutes	3	0	26	29	
Centres of Excellence /ASC/PSC	8	1	20	29	
Total	168	54	1,082	1,304	

Interim Placement of Fresh PhDs Programme (IPFP) is another initiative under which fresh PhD scholars are placed in various public / private sector universities, preferably nearest to the domicile city of the scholar, for a period of one year. This serves as an impetus for the scholars to excel in their field and secure a permanent position. The IPFP is being funded through Tenure Track Fund. The annual budget of Tenure Track Fund for the year 2012-13 is estimated at Rs. 2,202.671 million whereas revised budget estimates are Rs. 1,339.920 million for FY 2011-12.

d. Recurring Grant to Universities/Institutes/Centres

Annual recurring grant is allocated to the universities and institutions based on approved Funding Formula that assigns weighting to students' enrolment, faculty strengths, performance and need etc., considering efficient level essential expenditures of universities on the basis of efficient ratio of Faculty to Student and Faculty to Staff. During 2011-12, Rs. 28.887 billion has been released to the HEIs; and for the FY 2012-13, Rs. 32.778 billion have been allocated to the HEIs as annual recurring grant (82.64 per cent), National Programmes for Universities (10.02 per cent), Tenure Track Salary (5.94 per cent) and HEC Secretariat (1.4 per cent). Category-wise detail of recurring grant released during FY 2011-12 is appended below:

Category	Annual Recurring Grant 2011 -12		
General Universities	13,442.82		
Agriculture Universities	2,663.24		
Engineering Universities	3,643.52		
Medical Universities	926.00		
Degree Awarding Institutes (DAIs)	1,122.59		
Distance Education	328.68		
Other Institutes and Centres	1,775.21		
HEC, TTS and National Programmes for			
Universities	4,985.26		
Total	28,887.32		



During 2011-12, progress was made for further refinement and implementation of funding formula. A meeting of the sub-committee of the Commission was convened in May 2012 to revisit funding formula. After deliberation and reviewing all the factors of the formulae, it was decided that the funding formula does not need any change at the moment. However, the minimum and maximum increase in the funding of the HEIs may be changed every year by the sub-committee of the Commission keeping in view the funds available for the HEIs.

The Committee also decided to withdraw NIS for the FY 2012-13, already submitted to the Government with 14 per cent minimum and 22.57 per cent maximum increase on the original allocation of the existing FY 2011-12 and recommended to submit revised NIS with a minimum 5 per cent and maximum 53.52 per cent increase of the funding of the HEIs. Accordingly, line ministry forms (LM1 to LM6) along with other material for Green Book i.e. Outcomes and outputs of the Commission, its budgetary allocation, performance indicators, achievements and targets were also submitted to the Finance Division, Government of Pakistan. In Green Book, HEC Medium Term Budget appear under the Ministry of Finance, Revenue and Planning and Development.

4. Release of Funds under the Scheme "Subsidy to Scholars under Cultural Exchange Programme"

An amount of Rs. 37.725 million was released during the FY 2010-11 to the Embassies of China, Egypt, Romania, Slovakia, Mexico, Turkey etc. and scholars as remittances and air ticket charges, etc. under the scheme "Subsidy to Scholars under Cultural Exchange Programme".

5. Monthly / Annual Reconciliation of Recurring Grant with AGPR

The recurring grant quarterly released by the Finance Division, Government of Pakistan was got reconciled with AGPR on monthly basis and annually for the FY 2011-12.

6. Re-appropriation of Funds under HEC Budget Heads

The re-appropriation of funds was made within the budgetary allocation to accommodate requirements of funds in various HEC programmes during the FY 2011-12.

7. Important meetings Organized and/or Represented by HEC Finance Division during FY 2011-12

Finance Planning Division has actively been participated in policy formulation, financial management, financial planning and decision making, financial assistance from the World Bank and other related issues during the year 2010-11. In this respect, numerous meetings of higher forums were organized and the Division also represented HEC during various meetings at different universities/organizations. Details of some important meetings either organized or represented by Finance Division are depicted below:

- The 9th meeting of HEC Finance Planning Committee to review Annual Budget of HEC Secretariat and National Programmes for Universities was held in July 2011. The Committee reviewed the estimates and formulated its recommendations for the approval of the Commission.
- Meeting of Commission's sub-committee was convened in May 2012 to review funding formula for universities and degree awarding institutions. Recommendations of the Committee got endorsed by the Commission and implemented accordingly.
- Apex committee meeting of the State Bank of Pakistan was attended to discuss the modalities for development of a new student loan programme for higher education in Pakistan. The main objective of the Student Loan Programme is to enhance access to higher education to students of low income families across the country thereby improving equity and access for the poor. Ultimately the significant goals are to reduce inequalities between the rich and the poor and develop human resource in the country.
- Represented HEC in Finance Planning Committee meetings of various Universities/Degree Awarding Institutions held for annual budget approval and agenda items having financial implications.
- Organized several meetings of visiting Mission of World Bank with HEC senior and top management for the
 preparation of programme documents for Bank's financial support of US\$ 300 million to higher education
 sector in Pakistan for next three financial years.

B. FINANCE OPERATIONS SECTION

This section of Finance Division is responsible for processing and record-keeping of all receipts, disbursements and maintain accounts through SAP based ERP solution. Funds are also released for Overseas and Indigenous Scholarships, salary to the Foreign Professors under Foreign Faculty Hiring Programme and Tenure Track Scheme, Promotion of Research, Inter Universities Academic Activities as well as, Digital Library, Pakistan Educational Research Network, Video Conferencing, and different research projects in Universities.

Travel Grants to university teachers, and sponsorship for Scientific Journals and support for organizing seminars in universities is also paid through Finance Operations Section. Finance Operation Section is also responsible for the operational expenditure of HEC Secretariat like salary, pension and benevolent fund, utility bills, rent of the houses, payment to vendors against supply of goods and services and all other routine expenses. During 2011-12, the Division disbursed Rs. 44,236.96 million against the development projects of universities and HEC, and recurring grant and other programs as per following summary:

S.	Description	Payments/ Adjustments	Receipts/ Adjustments		
No.	Description	Amount			
	A) Development Grant (in Rs millions)				
1.	Development Grant to Universities & HEC Managed Projects	10,314.742	9,762.554		
	B) Recurring Grant				
1	Recurring Grant to Universities	23,897.721	23,897.721		
2	Promotion Of Research	964.705	1005.000		
3	IUAA	449.210	567.900		
4	Tenure Track	1,324.323	1,385.000		
5	HEC Secretariat (Own Recurring)	615.846	435.000		
6	HEC, University Programes	346.142	392.362		
7	Digital Library	715.367	725.000		
8	Pakistan Education Research Ne	619.311	625.000		
Tota	I Recurring	28,932.63	29,032.98		
Grand Total		39,247.37	38,795.54		

2. Audit by Federal Auditor

The accounts for the fiscal year 2010-2011 were completed and duly audited by federal auditors while audit for the fiscal year 2011-12 is ready to be conducted.

3. Audit by Independent Chartered Accountant

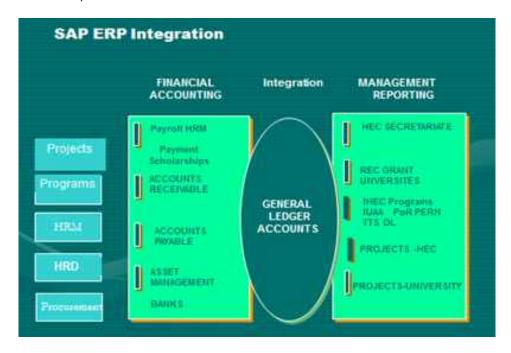
In order to get the accounts of HEC audited on international accounting standards; the services of M/s Awais Hyder Liaquat Nauman Chartered Accountants were hired after completion of codal formalities to conduct the audit of the Commission's accounts. Draft accounts for the year 2009-10 were prepared by Finance Division while audit for the year 2008-09 is in progress by the firm.

4. Physical Evaluation of Assets

Physical evaluation of assets has been conducted as on October 2011 by M/s W.W Engineering Services (Pvt.) Ltd and draft report submitted during the year 2011-12. The report is under review.

C. Business Automation System Wing (SAP Competence Centre)

The Business Automation System (BAS) department is responsible for implementing and maintenance of SAP based Enterprise Resource Planning (ERP) solution. The SAP system integrated all functions of HEC including Finance, Projects, HEC Programmes, Human Resource Management, Procurement and Asset Management, as well as, University Recurring & Development Grants system . In the year under review, BAS wing has performed following tasks in their respective modules:



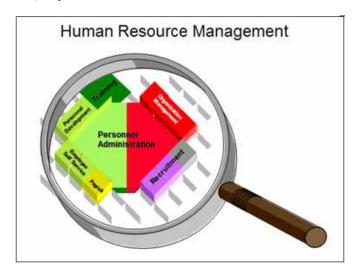
2. Finance, Accounts and Planning

- Developed new reports and improved existing reports required by management
- Improve advance payment and reporting for advances
- Screen designed and configured for data entry of Project details in NRPU Division
- Developed tables for accommodating new fields in Project System
- Improved budget book

3. Human Resource Management and Administration

- Implementation of SAP Payroll process for Monthly salaries, Bonuses and Annual Increments with latest pay structure
- Configured and developed HEC's employees Organizational Structures in SAP
- Configured different standard and customized screens for employee's profile photo and personal /official data of employees and HEC scholars
- Configured employee's position budgeting in HEC's fiscal year Budget
- Developed employee's benefit and advances in SAP
- Developed employee's hiring, change in pay, transfer, promotions and leaving actions
- Developed employee's medical expenses and accommodation information screens
- Configured SAP Training and Event Management module for employees
- Developed different upload programmes for legacy data updating in SAP
- Completed Japanese Need Based Scholar's manual data uploading in SAP and their reports and aligned different SAP processes of IRSIP and indigenuos scholars

- Developed different reports for employee's Trainings, Education, Medical expenses, Accommodation and other relevant to personal and official data
- Trained HEC's HRM Division and other HEC employees for their routine workings in SAP with reporting through SAP Ad-Hoc Query and Other SAP standard modules



4. Assets Inventory and Material Management

- Enter data of land, machinery, equipment and telephone exchanges in SAP system
- Enter Legacy data from 1988 to 2003 related to furniture and fixture in SAP system
- Prepared data of all assets for reconciliation and up-loading in SAP system
- Designing barcode system for asset management
- Improved and developed asset Reports
- Implemented asset verification report email system through SAP and has successfully tested
- Provide online support to regional centres related to data and information verification

5. HRD Scholarship Module with SAP Web Portal

- Scholars payment report has been developed for whole HRD Projects
- Linkage of invoice and debit advice of scholars
- Prepare reports through SAP for Management, Cabinet Division and Assembly committees related to scholarship queries
- Created upload programme for debit advices of new info-type (Payment 9069) for all scholarship type.
- Approved Supervisor Online Application Form

6. SAP In-house Trainings, Academy Trainings and Consultant Level Certification

- 10 HEC employees completed SAP Academy Training conducted by Siemens Pakistan Ltd
- Three employees passed the Consultant Level Certification Examination conducted by SAP Malaysia
- SAP end user training was given to more than 100 employees of functional divisions of HEC

7. Financial Statements for 2010-11

HEC Management Accounts were prepared for the FY 2010-11 including Financial Statements, details
of Recurring and Development Grants to Universities and the Balance Sheet

Monitoring & Evaluation

Monitoring and Evaluation

Monitoring and Evaluation in HEC, like any other advanced organization, is monitors the progress of all HEC funded projects being implemented at public as well as private sector universities/Degree Awarding Institutions and by HEC itself. The progress reports are prepared on quarterly basis for all the projects throughout execution till completion and submission of project completion report (PC-IV). The progress reports are prepared in light of the prescribed financial and physical monitoring indicators, achievement against defined target / objectives of PC-1 and standard procedure / codal formalities prescribed by respective controlling authorities during project execution.

The project's progress is reviewed on quarterly basis across the board and all the ongoing projects are visited regularly during project life cycle. The reviews are conducted through onsite visits, video conferencing, and review discussions with Project Directors and focal persons. Desk reviews are also done by obtaining updates from executing agencies depending upon the complexity of the project. The Executive Summaries and Reports are shared with executing agencies regularly and issues are discussed with the concerned authorities. The problematic, not satisfactory and slow moving projects are kept on close watch and are vigorously monitored through frequent onsite visits, follow-up meetings and review. The heads of executing agencies of these projects are asked to address and mitigate the issues, adversely affecting the project execution and kept on alert list till appropriate resolution of the matter.

The M&E is also maintaining the financial and physical status of PSDP portfolio of HEC in term of funds released, expense incurred, projected financial requirement, physical status of the projects etc. Customized reports to address the queries from Planning Commission and Ministry of Finance are also prepared time to time and follow-up is done to address issues in consultation with executing authority and monitoring person.

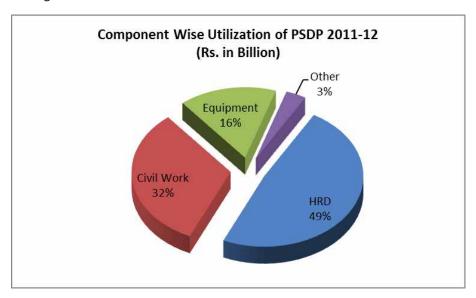
1. Financial Status of FY 2011-12

The M&E Division is responsible for appropriate financial resource allocation to the development projects during execution on quarterly basis. The funds are allocated and released to the projects on the basis of satisfactory financial and physical performance, firm activity plan, spending capacity of the executing agencies, adherence to approved PC-1 provision and compliance to standard procedures during execution. Although financial constraint has made it a challenging task for HEC to execute the development projects as per approved parameters of scope, cost and time, but M&E Division has adopted proactive approach in close coordination with executing agency in anticipation of reduced releases. The projects' activities were prioritized to protect the investment already made for timely readiness of the facility, provide funds for the scholars already studying abroad, clear outstanding liabilities against completed services and to control the cost escalation against under process activities. The contingent plans have worked out to put some of the activities on hold or slow down to counter the reduced released. For FY 2011-12 an amount of Rs. 14.00 billion has been allocated for development projects. Actual amount released is only Rs. 9.76 billion against which Rs. 12.75 billion has been utilized.

i. Component Utilization Status of PSDP 2011-12

The overall framework of development portfolio is mainly focused on human resource development, building infrastructure, provision of hi-tech equipment for research and other related facilities essentially required for making our higher education institution, a world class place for learning. M&E has comprehensive database comprising physical and financial statistics of all the focused areas of investment through PSDP of HEC. The data is updated on quarterly basis and detailed profiles, executive summaries and reports are prepared for review and status updating.

The total number of approved development projects during FY 2011-12 was 177 with the approved cost of Rs. 145 billion. The amount utilized under these projects during FY 2011-12 is Rs. 12.75 billion. The major spending of HEC's development grant is on HRD with 49 per cent share followed by civil works with 32 per cent share and equipment with 16 per cent while rest of the 3 per cent amount is utilized for other activities including project staff salaries, furniture, glassware and chemicals etc.



ii. Project Completion Reports (PC-IV)

Project completion report is the final stage of the lifecycle of a project. Although completion of projects with PC-IVs submission according to given time lines, within budgetary provisions and in line with scope has become a challenging task for HEC due to delayed releases (not according to approved PC-1's financial phasing) yet M&E Division has vigorously focused on the efficient completion of the projects with approval of changes in the plan in cost effective manner without compromising on the scope and benefits of the stakeholders. The M&E division has strongly focused on formal closure of the projects with minimum extended time span, cost overrun and scope division. If any changes against the plan have become inevitable during execution, then necessary approval of competent authorities are obtained. The projects whose releases have been completed are closely monitored and kept on alert list with regular review in monthly basis till closure and submission of project completion report (PC-IV).

2. Overall Funding & Completion Status of Development Projects in FY 2011-12

According to the updated data maintained by M&E the total number of approved projects is 903 with the budget of Rs. 189.5 billion. Ongoing projects under PSDP 2011-12 are 177 in total with funding provision of 145 billion. Funding of 36 projects worth Rs. 7.8 billion is completed.

i. Areas of Investment under Completed Projects in FY 2011-12 (PC-IV's Submitted)

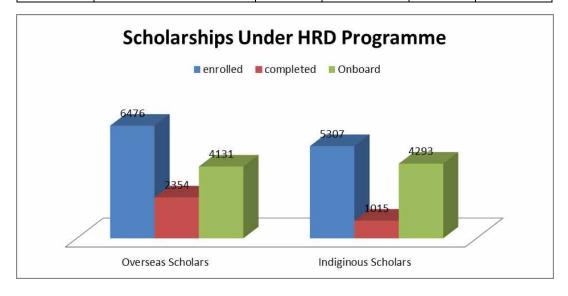
HEC implements the development projects according to requirement of public sector universities/DAIs. From building the structure to providing the latest equipments for laboratories, trained staff, provision of library books and availability of missing facility, HEC's projects are covering all these areas in project implementation. The main areas of investment in this regard are Human Resource Development, Civil Works and Equipment.

a) HRD

Human Resource Development through Faculty Development Programme is the priority of strategic frame work of HEC therefore, the major chunk of development funds are channelized towards providing scholarships to academia for indigenous as well as foreign degree programmes. To achieve the objective more than 46% budget of PSDP of HEC has been allocated for HRD component through series of local & foreign scholarship schemes. HEC has provided 6476 Overseas MS, PhD and Post Doc Scholarships out of which 36 per cent (2345) scholars have completed their studies and has joined the academia of Pakistan while rest of the 64 per cent (4131) scholars are on board. 408 Scholars have returned during the FY 2011-12, hence the highly qualified workforce is increasing with these scholarships.

Apart from overseas scholarships, HEC has provided indigenous scholarships to 5307 students. More than 19 per cent (1015) of the scholars have completed the studies and rests are on board. 198 indigenous scholars have completed their research studies in FY 2011-12. The M&E Division has mapped the PC-1's provisioning of HRD component of all the projects approved under PSDP of HEC and has integrated with a data base containing the status of each scholar sent abroad. The scholar wise status is updated on quarterly basis. The summary of HRD programme of HEC is as under:

	Executing Agency	Programme Status	Enrolled	Completed	Onboard	Returnees in 2011-12
	HEC	PhD	2888	1129	1759	240
	Universities	TIID	1711	366	1345	74
	Total		4599	1495	3104	314
Overseas	HEC	MS	1108	199	909	41
	Universities	IVIS	222	204	18	0
	Total		1330	403	927	41
		Post Doc	547	447	100	53
Subtotal Overseas			6476	2345	4131	408
Indigenous	HEC	DI- D	5283	1015	4268	198
	Universities	PhD	24	0	24	0
	Sub-Total		5307	1015	4292	198



b) Civil Works

Civil work is also an important component and is required for newly established Universities as well as for extending access by introducing new programme or enhancing enrolment capacity, by already established universities. In FY 2011-12, there is provision of about Rs. 34.9 billion for 132 projects. The M&E Division has record of the PC-1's provisioning of civil work component of all the projects approved under PSDP of HEC and has integrated with a data base containing the status of each project. The status is updated on quarterly basis with actual spending and completion status of different modules. The summary of Civil Work database is as under:

		As per PC-1 Provision			
Status	No. of Projects	No. of Modules	Approved Cost (Rs. M)	Covered Area (Saft)	
Carrage DCDD	122	1001	(,	` 1 ′	
Current PSDP	132	1001	34,889.455	17,300,572	

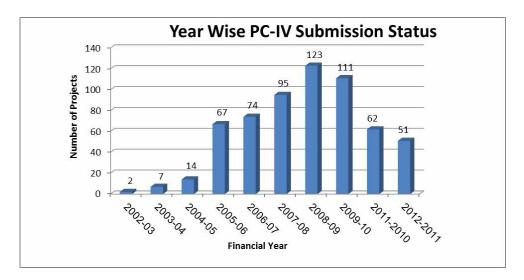
a) Equipment:

To promote and support the research activities HEC has allocated substantial amount towards establishment and up gradation of laboratories for purchase of state of the art equipment. In FY 2011-12, there was provision of around Rs. 15.3 billion for 141 projects.

i. Year-wise Completion Status of the Development Projects.

During project execution time slot available is very important as prolonged execution directly takes the project to cost overrun and sometimes result in compromise on the project scope.

The M&E Division has strongly followed the project completion process through proactive tracking system. Although this task of timely completion of the projects has become challenging for HEC due to irregular releases not as per project financial phasing and approved annual allocation. But M&E Division in close coordination with executing agencies has assured the project's completion efficiently in cost effective manner in minimum extended time span. The year wise project completion status (PC-IVs submission) is as under:



3. Project Feasibility Reports (PC-V)

M&E has started obtaining PC-V form executing agencies and to date 200 plus project feasibility reports are obtained which have been reviewed before submission to Planning Commission.

Administration & Coordination

Leadership, Governance and Management

Administration & Coordination Division is an important wing in the management structure of the Higher Education Commission. The Division is responsible for the general affairs related to university governance, coordination with chancellors' offices, interaction with the Prime Minister secretariat and other ministries. Key areas include:

- Meetings of HEC's Governing Body
- Vice-Chancellors' Committee Meeting
- Senate/National Assembly Questions, Cut Motions, Resolutions Calling Attention Notices.
- President's / Prime Minister's Directives and Cabinet Decisions
- Coordination with Chancellors' offices
- Nominations of HEC's representative on various statutory bodies of Universities/Degree Awarding Institutes/Centres.
- Complaints received from President/PM Secretariat.
- Affairs of Public Sector Universities.
- Search Committee for appointment of the Vice-Chancellors of Federal Public Sector Universities.
- Capacity Building of HEC Employees

Meetings of the Commission

The 18-member Commission approves various policies and offers administrative and managerial guidance for magnification of higher education and research in the country. The meetings of the Commission are held quarterly. During 2012, two meetings of the Commission viz. 25th and 26th were held on March 8, 2012 and May 3, 2012, respectively.

Vice-Chancellors' Committee Meeting

The Vice-Chancellors' Committee was formulated in the 2nd meeting of the Commission held on January 8, 2003. All the Vice Chancellors or Rectors of Universities and Degree Awarding Institutions in public and private sector are members of the Vice Chancellors' Committee.

The ninth meeting of the Committee of public sector universities was held on September 13, 2011 whereas 10th meeting of the Committee of public and private sector universities took place from March 26-27, 2012 at Islamabad. Engr. Syed Imtiaz Hussain Gillani chaired both these meetings. Various important decisions were taken in these meetings for the promotion of higher education.

Senate/National Assembly Questions, Cut Motions, Resolutions Calling Attention Notices.

National Assembly and Senate are two houses which play an important role in building public opinion, creating awareness and instituting sense of public accountability. The questions raised in these Houses help in assuaging ambiguities with reference to functioning of public organizations and implementation of projects and programmes undertaken by them. Furthermore, positive criticism by the public representatives leads to improvement in decision making processes and fortify sustainability of public entities. All the questions pertaining to the higher education sector in Pakistan are referred to the HEC for appropriate replies through Cabinet Division in the National Assembly by the Minister in-charge Cabinet Division and in the Senate by Leader of the House on behalf of HEC. However, collecting authentic information in a very limited timeframe is

a constant challenge faced by the Administration and Coordination Division throughout the year. Nonetheless, National Assembly and Senate Question are responded to in best possible manner and within the prescribed time frame. During 2011-12, HEC processed and responded 47 National Assembly and 21 Senate Questions.

Fiscal Management is another name of balancing expenditures and revenues; sometimes expenditures exceed revenues and every so often revenues show such a positive trend that they exceed expenditures. Pakistan is a country that possesses meager financial resources and, therefore, resource management becomes even more difficult when expenditure outweigh available resources. In such situations, budget cuts are introduced which are presented in National Assembly in form of Cut Motions. Education sector also faces such budgetary cuts like all other sectors and different Cut Motions are presented in the National Assembly to balance out distribution of resources in accordance with the national priorities. During FY 2011-12 only one Cut Motion was put up in Senate was in favour of HEC. Similarly, Adjournment Motions, Resolutions, Calling Attention Notice and representation of HEC in various Standing Committees of the National Assembly and Senate are other important functions. During this period, HEC processed a number of Cut Motions, Admitted Motions, Calling Attention Notice and participated in a number of Standing Committee Meetings as per following details:

- Cut Motions, Resolutions, Adjournment Motions, Call Attention Motions 10
- National Assembly and Senate Standing Committee Meetings

President's/Prime Minister's Directives and Cabinet Decisions

During the period in question, 140 President's/Prime Minister's Directives were received by HEC. All the Directives have been fully responded to and are forwarded for implementation by the concerned Division of HEC. A&C Division is responsible for collecting the implementation report/status of these Directives and forwarding that to the Cabinet Division, President's/Prime Minister's Secretariat and Ministry of Education on monthly basis.

Nominations of HEC's Representative on Statutory Bodies of Universities/Degree Awarding Institutions

More than 126 persons were nominated for representing HEC on various meetings of different bodies of the Universities and Degree Awarding Institutes during the reporting year. More than 130 Universities/Degree Awarding Institutes in public and private sector exist in Pakistan at present. The Chairman HEC, or his nominee, is represented as Member on the statutory bodies of these universities/institutions.

Complaints received from President/PM Secretariat

During 2011-12, a number of complaints have been received from President/PM Secretariat that had called for immediate consideration and urgent action. These complaints were initiated by the Secretariats in response to the applications submitted to them by various stakeholders. A&C division after getting the feedback, reviews and comments from concerned universities/HEC Divisions had responded to the concerned Secretariat for further necessary action at their end. During 2011-12, 30 complaints were received at A&C and almost all the complaints were audited successfully and replies were sent back for information.

Affairs of Public Sector Universities

As part of Coordination, this Section is striving hard to entertain almost all the fairs/cases pertaining to universities and responded to in least possible time. The affairs of public sector universities are diversified in nature and demand urgent consideration for their solution. During the FY 2011-12, 211 cases of the universities were received and after getting proper response, all were timely disposed of.

Search Committee for Appointment of President, International Islamic University, Islamabad

During 2011-12, a Search Committee was constituted by President of Pakistan for selection of three persons against the vacant position of President, International Islamic University, Islamabad. The Search Committee comprised six members including Chairman HEC as the convener of the Committee. HEC conducted three meetings of the Search Committee to review the applications following comprehensive quantitative assessment procedure. After shortlisting of six successful candidates, the Committee conducted their interviews, and recommended a panel of three selectees in order of priority to the President of Pakistan/Chancellor for selection of one as President, IIU, Islamabad.

Capacity Building of Newly Inducted Vice Chancellors'

Since 2008, HEC has successfully conducted five international Capacity Building Trainings for the vice chancellors of public and private sector universities. Lately, training was conducted for the newly inducted vice chancellors' during January 2012 in collaboration with British Council Pakistan and Leadership Foundation for Higher Education, UK. This training primarily focused on providing orientation to the Vice Chancellors/Executives of universities/DAIs on the state-of-the-art management tools being used and practiced in the developed countries for advancement of institutions of higher learning and research. Moreover, focus remained on devising a strategy that improves standard of leadership and management in all facets of higher education sector.

HEC Regional Centres

HEC Regional Centres perform an important role in the provinces for development of higher education sector. In this connection, the Centres at Karachi, Lahore, Peshawar and Quetta provide a wide range of services to HEIs, students and faculty members as well as public at large. Each Centre liaises among respective public universities and accredited private sector universities, HEIs, Provincial Government, and degree awarding institutions.

The Centres coordinate and conduct NCRC meetings, trainings, workshops; provide internet facility, video conferencing, digital library, conference hall, accommodation and transport; provide information regarding accreditation status of the institutions, facilitate visitors for attestation and equivalence of their documents. They are also responsible for data collection and dissemination/ statistics on higher education and MPhil/PhD thesis, and represents in legal matters related to HEC.



The members of different NCRCs revised and finalized curricula for their respective disciplines. The Regional Centres provide all necessary logistic support for holding these meetings.



Meeting Session- Honourable Mr. Amir Haider Hoti, Chief Minister Khyber Pakhtunkhwa with Dr. Javaid R. Laghari, Chairperson (HEC) and HEC Higher Authorities

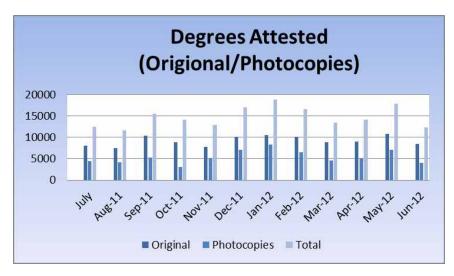


HEC Regional Centres also coordinate organization of regional contests of All Pakistan Inter-University Debate Contest

Accreditation & Attestation

Attestation

The attestation of degrees/transcripts and diplomas awarded by the chartered universities/degree awarding institutions of Pakistan both in public and private sector was transferred to the Higher Education Commission by the Government of Pakistan in May 2000. As per approved procedure, the HEC demands original documents from Matriculation onwards and copy of CNIC for verification and attestation of degrees/transcripts.



Total Amount Earned=89.75 million

1.	Embassies / High Commissions Cases Verified	
a.	British High Commission	29
b.	US Embassy	36
c.	Australian High Commission	22
d.	Ministry of Foreign Affairs/Education	205
e.	Oman Embassy	520
f.	Saudi Culture Office	14,746
2	Fake Degrees (Confiscated)	35

Equivalence

a. Equivalence of Foreign Degrees/Diplomas/Certificates

The term "Equivalence" implies that the degree/diploma obtained from foreign chartered universities/institutions is determined as equivalent to corresponding degree/diploma obtained from Pakistani educational institutions.

b. Equivalence of Pakistani Degrees/Diplomas/ Certificates

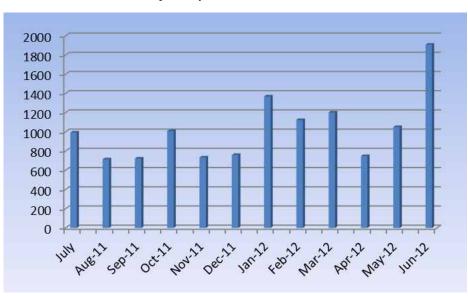
The equivalence is also granted to the degrees and diplomas awarded by the chartered universities/DAI of Pakistan to enable holders to get higher education and to compete for the different positions.

c. Equivalence of Deeni Asnad

As per decision of the Equivalence Committee of erstwhile UGC, the equivalence letters to final sanad "Shahadatul Almiya Fil Uloomal Arabia wal Islamia" awarded by the five approved Wafaq, Tanzeem, Rabit-ul-Madaris and five individual Madaris with M.A Arabic/Islamic Studies is being granted to holders to teach Arabic and Islamic Studies in Colleges and Universities as well as for pursuing higher studies:

Achievement during Reporting Period

The A&A Division has launched online Degree Equivalence System (DES) for granting equivalence/ recognition to foreign degree holders. Plans are also afoot to provide online equivalence of Deeni Asand in the current year.



Summary of Equivalence Cases Processed

- A total amount of Rs. 15.61 million has been earned during current financial year.
- Total 12143 (33 day-1) cases for equivalence of foreign/ Pakistani degrees and Deeni Asnad received/ processed and finalized.

Accreditation

a. Establishment of Universities/Degree Awarding Institutes

The Government of Pakistan is pursuing a liberal policy for establishment of universities/institutions of higher education for providing space to increasing number of student community. During the period, following universities/institutes have been granted charters by the Federal and Provincial Government/s:

- 1. Shifa Tameer-i-Millat University, Islamabad
- 2. Indus University, Karachi
- 3. The Lahore Leads University, Lahore
- 4. Global Institute Lahore, Lahore
- 5. Pakistan Institute of Management Sciences, Karachi
- 6. The Qarshi University, Muridke
- 7. Pakistan Institute of Fashion and Design, Lahore

Seven proposals for establishment of new universities/institutes were received during the period and are under process at different stages. The cases received in previous years were also processed and at different stages. During the report period, draft 'Bills/Ordinances' have been vetted in the light of provisions of Federal Universities Ordinance (FUO), 2002 and comparative statement of variations in the draft 'Bill/Ordinance' accordingly been communicated to the concerned quarters.

b. Amendment of Criteria/Guidelines for Establishment of new University/Institute of Higher Education

The meeting of the committee to review the criteria/guidelines for the establishment of new University/DAI was conducted in February 2012 for revising the existing 'Criteria/Guidelines for Establishment of a new University/Institution of Higher Education'.

c. Operation of Private Universities

In compliance with the decisions of Chancellors' Committee meetings, the HEC Inspection Committee carried out inspections of private sector universities/institutions for verification of enhancement of facilities in shape of academic, financial and physical infrastructure in relation to the Cabinet Criteria requirements. As a result of Commission's efforts in making sponsors of private universities/institutions meet the Criteria requirements, the universities/institutions have shown substantial improvement/progress.

d. Steering Committee of Provincial Education Secretaries

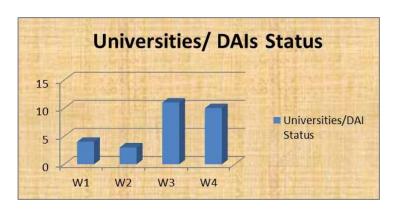
10th meeting of Steering Committee of Provincial Education Secretaries was convened under chairmanship of Executive Director, HEC and subsequently by Dr. Javaid R. Laghari, Chairman, HEC in January 2012 at Mural Hall, HEC Islamabad.

e. Franchising of Foreign Institutions

The case for recognition of collaborative arrangement between BIRTS and HND Edexcel is approved. The BIRTS is allowed for HND in Business and Fashion & Design.

f. W1-W4 Categorization of Private Sector Universities

The office kept vigilance over the private universities/institutions in relation to meeting Criteria requirements. As a result many universities were upgraded into higher categories. The inspection for W1-W4 has been carried out in 35 Universities/Degree Awarding Institutes. The documents have been submitted by 29 Universities/DAIs. A comparative statement of universities/institutions vis-à-vis first inspection is as under:





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