



National ICT
R&D Fund

ICT SPHERE

Newsletter

Fourth Quarter — 2008

Rozee.pk Launches Campus Career Portals with Leading Pakistani Universities



In an exclusive ceremony, Rozee.pk launched Online Campus Career Portals for the leading universities of Pakistan, such as NUST Business School, FAST-NU, LUMS, UCP, IBA and COMSATS. These portals aim to link graduates and alumni to leading industry jobs in the most effective way.

This project is being executed by Rozee.pk and funded by National ICT R&D Fund. Campus Career Portals is a unique project, being developed for the first time in Pakistan, which will directly link academia to the industry. These portals promise to integrate the graduating students, faculty and alumni of 85 Pakistani universities into the Rozee.pk platform. Under this project, all three will be able to build their resumes online, view job postings by over 15,000 employers, apply and network with their peers.

Attendees included the Vice Chancellors and Rectors of partnering universities as well as leading business entrepreneurs.

Excerpt of National ICT R&D Fund Funded Project Presented in the US

Dr. Masoom Alam of Institute of Management Sciences, Peshawar attended the 15th Annual ACM Computer and Communications Security Conference from October 27-31, 2008 in Alexandria, VA, USA. This is a leading international forum for information security researchers, practitioners, and developers.

Dr. Alam gave a presentation on "Remote Attestation in a web services enabled environment". Remote Attestation is a feature of Trusted Computing, a hardware based security technology. He was greatly appreciated by the audience who showed their

interest in his presentation.

He also attended a tutorial during the conference on October 29, 2008 about the Android Security Framework by William Enck which is expected to lead the Open Source Mobile Platform Industry.

Dr Alam is currently working on a research project titled "Dynamic Behavioral Attestation for Mobile Platforms", fully funded by National ICT R&D Fund. In relevance to this, he expects that Android framework will be a perfect match with this research project.

Contents

Rozee.pk Launches Campus Career Portals with Leading Pakistani Universities	1
Excerpt of National ICT R&D Fund Funded Project Presented in the US	1
P@SHA Awards Two Projects Funded by National ICT R&D Fund	2
National ICT Scholarship Program 2008-09	2
Inside the Monitoring Department	4
Technical R&D	5
Proposals Status (2007-2008)	6
Category-wise Summary	6



Ministry of Information Technology
Government of Pakistan



National ICT
R&D Fund

P@SHA Awards two projects funded by National ICTR&D Fund

Karachi, October 31, 2008 - National ICT R&D Fund is pleased to announce that two of its funded projects namely "GIS based Optical Fiber Network Monitoring and Management System Design and Development" and "An Artificial Immune System Based General Purpose Intrusion Detection System" have been awarded as the "Best of Research and Development" and "Best of Tertiary Student Project", respectively by Pakistan Software Houses Association (P@SHA).

The category of "Best of Research and Development" award is presented to the most outstanding ICT R&D project which can be ICT research and/or creation of a prototype or a completed product, whereas "Best of Tertiary" award is presented to the most innovative ICT software and/or hardware project from students of institutions of higher learning.

This was the 4th National Annual ICT Awards Ceremony for IT & ITES held by P@SHA and is a practice to recognize and acknowledge those who have contributed significantly in the domain of ICTs in Pakistan.

The ceremony was attended by executives of major financiers from the ICT community and corporate

sector while National ICT R&D Fund was the silver sponsor for this event. National ICT R&D Fund was represented by their CEO, Dr. Qasim Sheikh.

"GIS based Optical Fiber Network Monitoring and Management System Design and Development" was initiated in November 2006 by Palmchip and LUMS as a joint project. National ICT R&D Fund funded Rs. 18.92 million for this project.

"An Artificial Immune System Based General Purpose Intrusion Detection System" was initiated in October 2007 by FAST-NU, and

here National ICT R&D Fund funded Rs. 10.90 million for the project.

National ICT R&D Fund congratulates Mr. Jauhar Zaidi, CEO of PalmChip Corporation USA and Mr. Zubair Shafiq of Next Generation Intelligent Networks Research Center (nexGIN RC FAST-NU) on winning the "Best of Research and Development Applications" and "Best of Tertiary Student Project" award respectively.

National ICT R&D Fund is committed to facilitating high-quality ICT initiatives by providing them funding opportunities.



National ICT Scholarship Program 2008-09

The program aims at providing opportunity to the talented and deserving students of rural communities and less developed cities of the country to join the ICT profession. This is being achieved by offering 4-year undergraduate scholarships to the students from these marginalized areas. The scholarships cover the 4-year tuition fee, along with boarding and lodging expenses for the period of study.

The program also offers a monthly stipend to the scholarship awardees.

Phase I – Operational Summary:

This phase started with nation-wide publicity campaign from June 1, 2008 in largest circulation regional and national newspapers in Balochi, Pushti, Sindhi, Urdu, and English. This was followed by a cost-free

registration process for eligible F. Sc. students of rural areas of the country.

Training of Teachers program was conducted at 5 locations across the country: Quetta, Peshawar, Sukkur, Multan, and Lahore from July 4 to July 16, 2008. Foundation Training for students was held at 166 locations across the country from July 28 to August 29, 2008.

Overall Test results were displayed on the internet www.nts.org.pk on September 2, 2008. Provisional Merit list was placed on our website on September 17, 2008 and the Final Merit list with allocated disciplines/universities was placed on our website www.ictrdf.org.pk on September 24, 2008. This list included reporting date/address for each selected student.

This program was closely monitored by representatives of National ICT R&D Fund and also by an external monitoring agency.

The program was divided into 3 components for first phase (Phase I):

1. Training of Teachers (ToT)
2. Foundation Training Program (FTP) of students

3. Scholarship Award Test

This was followed by the second phase (Phase II), which is a 4 year fully-funded scholarship in public and private universities of the country to pursue a Bachelors degree in ICT-related disciplines

Training of Teachers:

During this component teachers from rural area schools/colleges were provided training in modern pedagogical techniques in addition to increasing their competence to teach students how to attempt MCQ-based questions. This was a 3-day training course.

Foundation Training Program:

During this component students from rural area schools/colleges were provided training to attempt

MCQ-based questions for university entrance exams. This was a 20-day training course.

Scholarship Award Test:

During this component a 2.5 hour test comprising of 120 questions from Mathematics, Physics, English, Computing Sciences, and Chemistry was held on August 31, 2008 to create a merit list of all registered students. The test was held simultaneously at 31 geographically dispersed locations across the country.

Distribution of students by university/discipline:

Out of the 550 students selected for NICTSP 2008 scholarships the following table and pie-chart show distribution of students by university and discipline, respectively.

Top-level summary of results achieved:

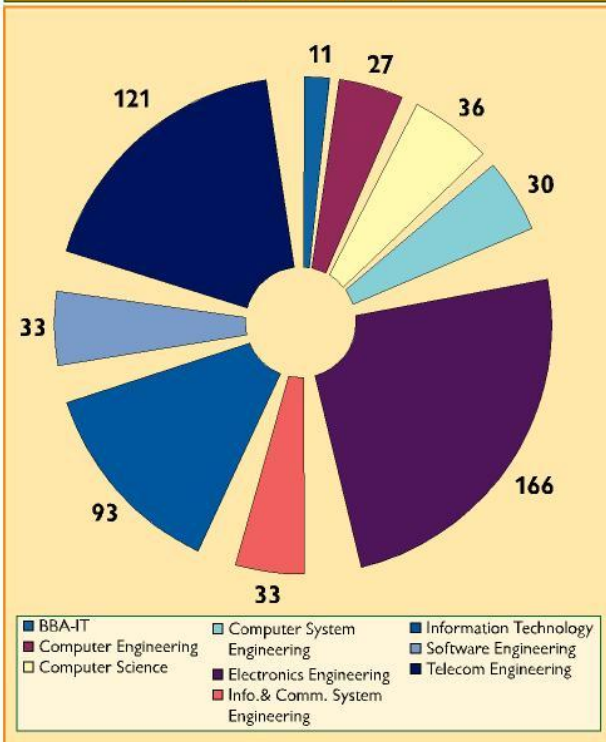
Parameter	Number
Teachers trained	436 (actual)
Students trained	7,200 (training arranged)
Participating colleges	1,200 (potential)
Students who took test	5,425 (actual)
Total scholarships awarded*	550
Punjab	304
Sindh	126
NWFP (including FATA/FANA)	91
Balochistan	29

*Based upon provincial population quota

University*	Number of students
COMSATS	166
Foundation University	11
IBA, Sukkur	24
International Islamic University	85
LUMS	1
NUST	252
UET, Peshawar	8
UET, Lahore	3

* Note: The universities were assigned according to merit, student preference, university seat limitations, and other university policies.

Scholarships awarded by Discipline



National ICT Scholarship Program for the year 2009 has been launched with the first advertisement appearing in National newspapers on December 23, 2008. For details on the program please visit www.ictrdf.org.pk/scholarship

Inside the Monitoring Department

Monitoring Department has the mandate to ensure efficient utilization of resources and is responsible to monitor all funded projects. The department plays a key role in achieving the strategic objectives of National ICT R&D Fund. A constant vigil is kept on all funded projects to ensure timely completion of different phases and development of concrete deliverables to spread the benefit of ICT to all segments of the society.



Fawad Younus

Mr. Fawad Younus heads the department as General Manager. He holds a B.Sc. in Electrical Engineering and an M.Sc. in Electrical Engineering from the University of Texas at Arlington and an MBA in Engineering and

Technology Management from the University of Dallas. He worked for a year at Advanced Micro Devices (AMD), Austin, Texas as a Custom Layout Design Engineer. Later he joined National Semiconductor Corporation, Arlington, Texas where he worked for 13 years at various Engineering management posts before joining National ICT R&D Fund as General Manager – Monitoring. Mr. Younus brings with him hardcore engineering experience, both at the design and strategic level. He is also a certified Six Sigma Green Belt. His engineering and managerial experience is an asset to National ICT R&D Fund.

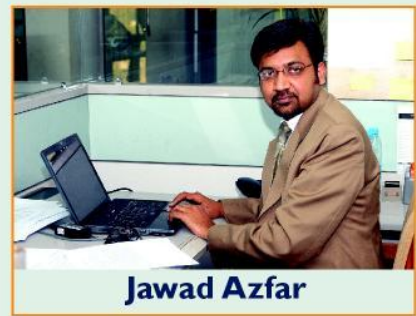


Omar Sadik

Mr. Omar Sadik is working with us as Deputy Manager Monitoring since

June 2007. He is a social science graduate from Quaid-i-Azam University, Islamabad. He also has a Post Graduate Diploma in Futuristics from Pakistan Institute of Futuristics, Islamabad. He is a life member of the Futuristics Society of Pakistan. Mr. Sadik possesses more than seven years of experience in Management with special emphasis on Monitoring Public Sector Reforms. Apart from his experience of working as a project manager, Mr. Sadik also has more than 8 years experience of teaching 'Sociology' at various universities of Pakistan.

Prior to joining National ICT R&D Fund, Mr. Sadik was working as a 'Project Manager' for 'National Endowment for Democracy, USA' project on Transparency and Good Governance in Local Government Institutions in Pakistan.



Jawad Azfar

Mr. Jawad Azfar has been working with us since May 2007, as Deputy Manager Monitoring. He is an MBA (finance) gold medallist from Hamdard University, Karachi. Mr. Azfar brings with him almost 7 years of experience in working at various managerial positions. He worked as Program Officer for Korea International Cooperation Agency between 2001 and 2005. He later joined Pakistan International Airlines as Assistant Manager and held various operational positions during his tenure with the National flag carrier. His experience in operational and field positions is a valuable contribution to the Monitoring team at National ICT R&D Fund.



The Monitoring Team



Adeel Shaikh

Mr Adeel Aijaz Shaikh is working

with us as Deputy Manager Monitoring since June 2007. He is a BBA (Hons) & MBA graduate from Bahria University, Islamabad. He is also a "Certified Productivity Specialist" and "Assessor for Quality Awards". Mr. Shaikh possesses more than six years of experience in Project Management with special emphasis on Monitoring & Evaluation & Quality Assurance.

Prior to joining National ICT R&D Fund, Mr. Shaikh has worked as a "Program Officer" at National Productivity Organization, Ministry of Industries, Production & Special Initiatives, Government of Pakistan. Mr. Shaikh has also represented Pakistan a number of times at various National & International conferences.

Technical R&D

Some of the significant projects funded by National ICT R&D Fund since August 2008 are as follows:

1. Real Time Implementation of H.264 Decoder for Heterogeneous Multicore Architectures

Principal Investigator:
Muhammad Ali Jinnah University, Islamabad

Project Funding: PKR 14.98 million

2. Automatic Personal Identification Biometrics System (APIBS) for Large Scale Applications

Principal Investigator:
Muhammad Ali Jinnah University, Islamabad

Project Funding: PKR 14.70 million

3. Dynamic Behavioral Attestation for Mobile Platforms

Principal Investigator: Institute of Management Sciences, Peshawar

Project Funding: PKR 11.95 million

4. Health Life Horizon: Design and Implementation of Health Level 7 (HL7) Open Source Application for e-health Services

Principal Investigator: NUST School of Engineering and Computer Sciences (SEECs),

Islamabad

Project Funding: PKR 14.12 million

5. Conversion of NGOSS Compliant, Web 2.0 Enabled Mediator, Rater and Biller Applications

Principal Investigator: Systems Research Private Limited, Islamabad

Project Funding: PKR 38.30 million

6. Development of Open Source Cell Library for MEMS Components Verified Through Modeling and Simulation

Principal Investigator: GIK Institute of Engineering Sciences & Technology, Topi, Swabi

Project Funding: PKR 14.90 million

7. End to End Mobility Management Framework (EMF) for Multi-homed Mobile Devices

Principal Investigator:
Muhammad Ali Jinnah University, Islamabad

Project Funding: PKR 14.89 million

8. An Intelligent Secure Kernel for Next Generation Mobile Computing Devices

Principal Investigator: National University of Computer & Emerging Sciences (FAST-NU),

Islamabad

Project Funding: PKR 14.99 million

9. Network-Embedded Security using In-Network Packet Marking

Principal Investigator: NUST Institute of Information Technology (NIIT)

Project Funding: PKR 7.88 million

10. Mobile Data Communication Device

Principal Investigator: Palmchip Pakistan (Pvt) Ltd

Project Funding: PKR 9.30 million

National ICT R&D fund is committed to developing an ICT centric research culture within Pakistan. We have made significant contribution by providing funding for concrete, ICT related technical R&D projects. We provide a platform for researchers and academicians to come forward with their ideas on ICT related solutions and product development. We encourage an industry-academia joint partnership to provide solutions to industrial problems and to promote ICT tools in industrial establishments. For funding opportunities and details on the above and other technical R&D projects funded by National ICT R&D Fund, please visit www.ictrdf.org.pk

Proposals Status (2007-2008)

(in numbers)

Category	Received	Aid to Proposal	Under Internal Review	Under External Review	Revision by PI	Under PAC Review	Approved/ Under Execution	Rejected	Postponed/ Called Off by PI
Technical R&D	84	8	8	3	31	0	27	5	2
Human Resource Development	7	1	2	1	0	0	1	2	0
Foreign PhD Scholarships	1	0	0	0	0	0	1	0	0
Industry Apprenticeship Program	8	0	0	0	1	0	7	0	0
ICT Centric University Excellence Program	1	0	0	0	0	0	1	0	0
Social Networks	3	0	0	0	1	0	0	2	0
Scientific Events	24	2	1	0	3	0	4	10	4
Total:	128	11	11	4	36	0	41	19	6

(in millions)

Category	Received	Aid to Proposal	Under Internal Review	Under External Review	Revision by PI	Under PAC Review	Approved/ Under Execution	Rejected	Postponed/ Called Off by PI
Technical R&D	1296.33	101.00	190.71	63.74	447.14	0.00	396.29	76.97	20.49
Human Resource Development	285.07	3.99	12.13	1.26	0.00	0.00	5.80	261.89	0.00
Foreign PhD Scholarships	38.90	0.00	0.00	0.00	0.00	0.00	38.90	0.00	0.00
Industry Apprenticeship Program	150.84	0.00	0.00	0.00	18.00	0.00	132.84	0.00	0.00
ICT Centric University Excellence Program	15.61	0.00	0.00	0.00	0.00	0.00	15.61	0.00	0.00
Social Networks	92.53	0.00	0.00	0.00	37.83	0.00	0.00	54.71	0.00
Scientific Events	46.71	16.48	8.60	0.00	3.54	0.00	1.71	13.55	2.83
Total:	1925.99	121.47	211.44	65.00	506.51	0.00	591.15	407.12	23.31

Category-wise Summary

#	Category	No. of Proposals	Amount (Rs.)
1	VLSI Design	3	44,621,930
2	4G Wireless Development	2	29,550,925
3	e-Health	3	43,999,607
4	e-Education	2	27,180,485
5	Social Networks	2	20,679,878
6	Mobile Device Software Systems	6	73,222,877
7	Network Security/Multimedia and P2P Systems	9	107,909,185
8	Open Source Development	7	135,465,252
9	National ICT Scholarship Program	18	1,324,000,000
10	University Excellence Program	1	15,608,000
11	Human Resource Development	7	120,635,340
12	Conferences	4	1,708,450

www.ictrdf.org.pk