



# Newsletter

NWFP UNIVERSITY OF ENGINEERING & TECHNOLOGY, PESHAWAR

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Main Campus, Peshawar



Abbottabad Campus



Bannu Campus



Mardan Campus

## Nudging research towards application...

As practitioners, we constantly list access, quality and relevance as the three broad areas that add to the malaise we have in higher education. While access and quality are clearly defined, and direct programs are initiated to overcome these shortcomings,



when it comes to "relevance", we get a little foggy. It is easy to say curriculum and research should be relevant to our needs; in practice, however, our efforts usually meander, some times closer to target than others, but mostly off the mark. Since research culture in universities was, well, comatose till date, we have still a long way to go in answering a fundamental question.... what do we want our researchers to do?

Many faculty members have been trained on cutting-edge scientific techniques. They can push the boundaries very well in countries of their training. It is application of their knowledge to local issues that often draws a blank. Which brings us to an interesting conundrum; does it make sense to spend on training people to gain "impressive" knowledge that is incapable of addressing local problems?

I am happy to say that at NWFP UET we continuously debate this issue, and slowly-very slowly-a paradigm shift is taking place in our researcher's mind. While they must continue to study and publish on latest scientific phenomena, they must, with equal measure, interface with industry to find solutions to our rudimentary issues.

We are now very cognizant of this dual role of engaging with the scientific world through papers in respected journals, and the onerous responsibility of finding solutions for not-so-cutting edge industry and infrastructure. It is a tall ask, but then, we are out of options. Tentatively, we are beginning to walk the talk. That's a start! Thank God for these small mercies!

Syed Imtiaz Hussain Gilani

## ACADEMIC LINKAGES

### MoU WITH POLITECNICO DI TORINO

NWFP UET Peshawar signed a three-year general agreement with Politecnico di Torino, Italy. The agreement is aimed to define the framework in which joint actions by Politecnico di Torino, and NWFP UET shall be taken to promote the exchange of persons, activities, and experience in relevant areas of higher education and research.

Further to develop joint actions in the faculties, schools, departments and research centers coordinated or annexed to them, both institutions will promote exchanges of students, researchers, faculty staff, through joint sessions, workshops and seminars.

Both universities will offer partial discount in the tuition fee, depending on the number of students enrolled in the host university. M. Sarwar Khan, Director Planning and Development, and Prof. Carlo Naldi have been appointed Incharge of cooperation of their respective universities.

### MoU WITH ISMB, ITALY

NWFP UET Peshawar signed a three-year MoU with Istituto Superiore Mario Boella (ISMB), Italy, to share common interests and objectives in the academic and cultural environment. ISMB, developed in 2000 is an applied research center in wireless technologies. The Center is one of the successful examples of synergies between universities and industrial system of Italy. ISMB also co-operates with national and international centers of excellence. At present the Center has 20 European financial projects, 20 national projects and over 40 industrial co-operations with national and international partners.

The aim of this agreement is to promote the exchange of persons, activities and experiences in relevant areas of applied research in wireless technologies' environment. In this regard both NWFP UET and ISMB will promote exchanges of researchers, study sessions, workshops and seminars through joint and scientific publications.

### MoU WITH SCPA

NWFP UET Peshawar signed a MoU with S.C.P.A Societa' Perla Gestione Dell'Incubatore Di Impresa Del Politecnico Di Torino.

The fundamental aspects of the agreement are that both institutions will contribute to progress goodwill and understanding between their countries, by establishing a general framework for cooperation in innovation and entrepreneurship development.

The agreement is focused to put an additional part to the general agreement with Politecnico di Torino and to define the framework in which joint actions by both the institutions shall be taken to promote the exchange of persons, activities and experiences in relevant areas of innovation and entrepreneurship development.

### MoU WITH UNIVERSITY OF GLASGOW, UK

NWFP UET Peshawar signed a MoU with University of Glasgow, Scotland, UK. The purpose of this MoU is to develop academic and educational co-operation and to promote mutual understanding between the two universities.

Both universities agreed to develop collaborative activities in the academic areas of mutual interest, on the basis of equality and reciprocity in the areas of exchange of faculty and administrative staff; exchange of students; conducting collaborative research projects; conducting lectures and organizing symposia; exchange of academic information and materials; promoting collaboration in field of mutual interests; and promoting other academic cooperation as mutually agreed. This MoU is for a period of five years and can be renewed.

### MoU WITH LUCAS-NULLE, GERMANY

NWFP UET and Lucas-Nuelle (LN) signed a three-year MoU, aimed towards a successful cooperation between both parties in transferring technical as well as didactical skills in Teaching and Training Technologies in fields including, Electrical Engineering, IT and Industrial automation. LN is one of the leading manufacturers for training systems for basic technical and further education world-wide.

NWFP UET intends to establish the Advanced Multimedia Training Center (AMTC) in collaboration with LN to strengthen the skills and knowledge of students, by using innovative training methods for all electrical engineering fields including IT automation and mechatronics, with the focus of further developing and improving its training programs.

In this context, LN has agreed to extend its cooperation in the delivery and installation of equipment, as well as providing training and transfer of knowledge in this area. The parties will setup a project committee to further elaborate and set the time schedule for the establishment of AMTC at UET.



## INTERNATIONAL WORKSHOP ON RESEARCH, DEVELOPMENT & EMERGING TECHNOLOGIES

A two-day “International Workshop on Research, Development & Emerging Technologies” was held at HEC Auditorium, Islamabad, on 29th & 30th May 2007. The workshop was organized by NUST Institute of Information Technology (NIIT), in collaboration with Higher Education Commission (HEC) and Campus Consultancy Services (CCS), UK.

Dr. Atta-ur-Rehman, Chairman HEC, was the chief guest at workshop, divided into four different sessions headed by various key educationists. The first session was chaired by UET vice chancellor, Engr. Syed Imtiaz Hussain Gilani.

The vice chancellor, while emphasizing the importance of higher education, said it is not natural but human resources which help to unleash the creative talent of human beings. The significance of national resources is dependent on its utilization, which is only possible through a developed human resource, so the enhancement of

human resource is far more critical for national development. “Countries that have more scientists in R&D activities will apply for more patent rights, translating into prototypes and product development”, he said.

At the end, Mr. Gilani congratulated HEC, CCS, and NUST for holding another workshop of the series.



## PROJECT EXHIBITION 2007



NWFP UET arranged the Final Year Project Exhibition 2007. More than 40 development projects were displayed that ranged from faculty sponsored systems to internal student research experiments, many of which involved application of the latest technology. The vice chancellor was the chief guest.

Addressing the audience, the vice chancellor said that project exhibition was aimed to showcase all-round business and hi-tech talents of our students. It was both an exhibition and a competition for UET final year students. He said besides technical knowledge, attention is being given to communication skills, entrepreneurship and presentations skills. These subjects have been made a compulsory part of engineering curriculum at undergraduate level.

Major projects displayed on exhibition included, Packing Machine, Automatic Fire Extinguisher, Solar

Power Plant, Solar Electric Vehicle/ Rig Tracker, Dual Calbre Handler, Voice Control Wheel Chair and Allterrain Vehicle. Among those projects titled Automatic Detection of TV Commercials by Department of Computer Systems Engineering won the Best Project Award by securing first prize. Design and Fabrication of Semi Automatic Liquid Filling by Mechanical Engineering Department and Webcam Mobile Surveillance (Electrical Engineering Department) got second and third positions respectively.

Dr. M.A. Irfan Mufti, Chairman, Department of Mechanical Engineering expressed thanks to the participants and industrialists for supporting young talent. Later on, the vice chancellor presented shields to the representatives of Pakistan Tobacco Company (PTC) and SMEDA.



*Semi Automatic Liquid Filling Model*

## SUN SOLARIS COMPUTER LABORATORY INAUGURATED



UET Peshawar has been selected throughout the country to computerize all the functions of university campus in collaboration with Oracle. This was stated by vice chancellor while inaugurating the newly established Sun Solaris computer laboratory at Department of CS & IT.

Earlier, Mr. Sufian Habib, BS (IT), briefed the audience about department's activities and achievements. He said this was initially introduced as a center in 2001 and, in 2004 it was upgraded to the department level. The department is actively involved in various curricular and extra curricular activities.

## FACULTY RESEARCH PROJECTS

- Prof. Dr. Noor Muhammad, Department of Mining Engineering, successfully completed his project titled "Determination of index and geo-chemical properties of marble of NWFP".
- Prof. Dr. M. A. Irfan, Chairman Department of Mechanical Engineering has completed Board of Advance Studies and Research (BOASAR) Research Project titled "Development of fracture bar for studying fast fractures and crack arrest".

## B-TECH, EXAMINATION 2006

The B.Tech First Year New Course & B.Tech (Pass & Honours) Part-I & II Annual Examination 2006 will commence with effect from 15-08-2007 and 16-08-2007 respectively. Last date for submission of examination admission forms with normal fee is 20-07-2007 while with late fee forms can be submitted upto 27-07-2007.

## EEC TO INSTALL SENSORS

Earthquake Engineering Center (EEC), Department of Civil Engineering, is establishing a strong motion instrumentation program, in which sensors will be installed on actual structures to record their seismic performance in real earthquakes. This hi-tech project would be first of its kind in Pakistan.

The National Academies of USA, through USAID, has sponsored exchange visit program in which Engr. Syed Mohammad Ali, Assistant Professor, visited California, and Dr. Anthony Shakal of California Strong Motion Instrumentation Program (CSMIP) visited Pakistan. Engr. Ali also visited UC Berkeley, and met with leading researchers, including Prof. Anil Chopra and Prof. V.V. Bertero. He also visited Cal. Tech, in Los Angeles, and met Prof. Bell Iwan, Director Earthquake Center of Caltech. The objective of this exchange visit is to benefit from the experience of CSMIP, an organization maintaining network of thousands of sensors in California.

After the successful exchange visits a report was prepared which is posted on the website of National Academies of USA under:

[http://www7.nationalacademies.org/dsc/earthquake\\_Recon.html](http://www7.nationalacademies.org/dsc/earthquake_Recon.html)

## BOASAR APPROVES M.Sc RESEARCH PROPOSALS

The BOASAR in its 23rd meeting has approved M.Sc research proposals of forty four students of the Institute of Telecommunication Technologies, Islamabad. The projects are from the fields of electrical engineering, mechanical engineering, DCSE, agricultural engineering, civil engineering, chemical engineering and mining engineering.

## ASME ORGANIZED E-BOOK FAIR

American Society of Mechanical Engineers (ASME) organized E-Book Fair at the Mechanical Department, that was visited by a large number of students. The fair contained different books related to different fields of engineering. Through an impressive display, the students were informed about their usage and accessibility. Assistant Prof. Abdul Shakoor arranged this activity.

## UET GRADUATES QUALIFY KRL APTITUDE TEST

A team of Kahuta Research Laboratories (KRL) visited the university to recruit fresh graduates. An aptitude test was organized by Engr. Abdul Shakoor Asstt. Professor Department of Mechanical Engineering. Four candidates qualified the aptitude test and interview.

## LDS WON THE CHAMPION TROPHY OF PIEAS

NWFP UET Literary & Debating Society (LDS), won the champion trophy at the 4th All Pakistan Interuniversity Literary Competition 2007, organized by Pakistan Institute of Engineering and Applied Sciences (PIEAS), held on 11 and 12 May at PIEAS, Islamabad.

The event included different kind of competitions including debates, essays and story writing, in which Waqar got 2nd position in story competition, Haseeb-ur-Rehman and Abdul Ali secured 1st position in "Living on the Edge Competition" while Farukh Rashid and Haseeb-ur-Rehman secured 1st position in "All rounder Competition" that included kasoti, bait bazi, visual round and dumb carades.



In his address the vice chancellor called upon students to use creativity and analytical power for developing arguments. He said that as a nation we have a habit of pointing fingers at others. "We have to learn that we owe Pakistan and it is our duty to do the best for its prosperity". He urged students to open their minds and accept others' views. We are multi-cultural, and this is our strength.

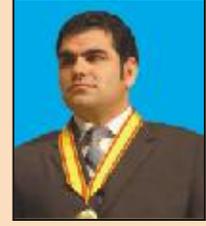
He further said developed countries changed their world through power that lies in science and technology. Therefore, Muslim "Ummah" will have to develop this power to improve their world. He assured students that university will support to LDS prepare themselves for challenges in future.

Incharge, LDS, Lecturer Engr. Qaisar Gul thanked the administration for supporting the team. Souvenirs and trophy were presented to the winning team.



## WELCOME ABOARD

Dr. Ali Arshad, Professor college of engineering University of Seoul Korea, joined the faculty of Architecture at UET Abbottabad Campus under Foreign Faculty Hiring Program (FFHP) of HEC. He has been appointed as Chairman, Department of Architecture.



Dr. Ali did his Master's and Ph.D from the University of Arts and Design Helsinki, Finland. His field of specialization is development of hybrid computational model for building systems and application of digital technology in early stages of architectural building designs. He is recognized for his immense research contribution in digital application in architecture.

The administration extends a warm welcome to Dr. Ali, and hopes that his participation in the academic program will benefit the students.

## STUDENTS ACTIVITIES

- Farah Awan and Samman Razaq, students of outgoing Electrical Engineering batch, got 3rd position in "Pakistan Undergraduate level Project competition" held at Comsats Institute of Information Technology (CIIT) Abbottabad. The project was supervised by Dr. Iftikhar Ahmad Khan, Professor Department of Electrical Engineering, UET Peshawar.
- Shahab (batch 6th, DCSE), Nazeef (batch 6th, Mech) and Kashif Gul (batch 6th, DCSE) won first prize in the category of Urdu Rock, Urdu and English Rock and Classical Singing respectively in a competition arranged by METAL on 12th May 2007. METAL (Musical Entertainment Talent Activity Liaison) is a society owned by the students of FAST Peshawar that organize an open competition in the category of singing and live musical performance.
- Mir Wali Shah, student of Department of Architecture, Abbottabad Campus, attended the 1st International Conference on Digital Architecture and Construction from 19-21 September, 2006. He also attended 1st International Workshop on Higher Building in Asia, at Seoul University of Engineering & Technology, South Korea, from 25-27 September, 2006 and gave presentation on earthquake model building.

## SEMINARS & WORKSHOPS

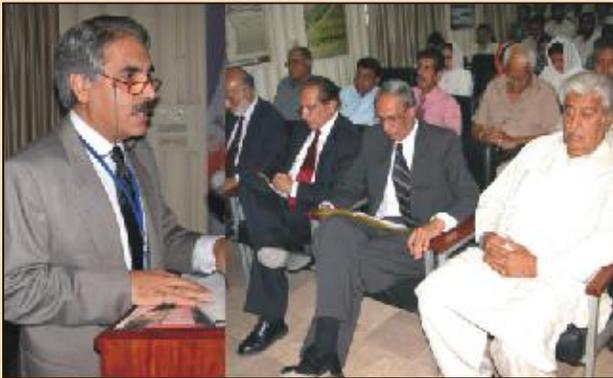
### SEMINAR ON DISASTER MANAGEMENT

A seminar on “Disaster Management” was held at UET Peshawar to mark “Engineer's Day”. The seminar was jointly organized by UET Peshawar, and Institute of Engineers Pakistan (IEP) Lahore.

The vice chancellor, while highlighting the importance of engineer's role in the national development, said that engineers are supposed to design durable and impressive structures to survive disasters.

Referring to the tragic destructive earthquake of 8th October 2005, he said that the developed countries have the capacity to survive and therefore, face few human loss, but in Pakistan we saw a lot of damage, structural as well as human.

He said, that the government has constituted the Disaster Management Commission which will not only look into the strategies to reduce the human loss



and structures, but will be helpful in devising solutions to various problems faced by quake-hit areas of Kashmir and Northern areas.

Earlier, Engr. Aftab Agha, President, Institute of Engineers, Pakistan (IEP), and member of Prime Minister Inspection Team, spoke on the safety measures during natural disasters. He said that national disaster management system is a right step towards prevention, and IEP can play a vital role to enhance cooperation with government during disasters like floods, fires and earthquakes.

Others who spoke were Dr. Qaisar Ali, UET Earthquake Professor, Engr. Sarfaraz Ahmad, Chairperson, IEP, Lahore Branch, and Dr. Javed Younas Opel, MD Pakistan Foundation of Engineers.

### WORKSHOP HELD BY ELECTRONICA VENETA

A one-day workshop was organized by Electronica Veneta at the Mechanical Department in which Mr. Ivon Electronica Veneta, Italy, gave a lecture on the mechatronics laboratory.

### SEMINAR ON EMERGING AUTOMOTIVE ELECTRICAL SYSTEMS

A one-day Seminar was held at Bannu Campus on Emerging Automotive Electrical Systems, on 19th May. Prof. Dr. Iftikhar Ahmad Khan, HEC Foreign Faculty Member, Department of Electrical Engineering Peshawar, was the speaker, on the occasion with Engr. Mohib Ali Shah, Coordinator Bannu Campus as chief guest.

The seminar was aimed to introduce latest developments in the automotive electrical systems that make vehicles significantly more fuel-efficient and environment friendly. In the end, the chief guest gave away certificates to faculty members of Electrical Engineering Department and participants.

### TRAINING WORKSHOP ON FIRST AID

The Department of Mining Engineering, in collaboration with Red Crescent Society, conducted a three-day training workshop on First Aid Training.

Prof. Dr. Khan Gul Jadoon, Chairman Department of Mining Engineering, while briefing the participants said that first aid training is an essential part of mining engineering and helps them to cope with any injury during mining. He urged the need to hold similar trainings frequently and make them part of the curriculum.

Later on, vice chancellor, gave away certificates to participants and appreciated their work. The representative of Red Crescent and the vice chancellor exchanged souvenirs.



### SEMINAR ON TOTAL QUALITY MANAGEMENT

A seminar on “Total Quality Management” was held in Mardan Campus on April 26th, 2007. The key speaker was Dr. Iftikhar Hussain, Chairman, Department of Industrial Engineering, UET Peshawar, while Co-ordinator Mardan Campus Engr. Mahmood Jan Babar was the chief guest on the occasion. Dr. Iftikhar Hussain highlighted the role of industrial engineers in maintaining efficiency and quality in corporate systems.

## ABBOTTABAD CAMPUS LAUNCHES SUMMER STUDIO

NWFP UET Abbottabad Campus and Mississippi University will establish architectural laboratory at UET Abbottabad under Pak-US Academic & Research Funds through HEC. This was stated by Dr. Ali Arshad, Chairman Department of Architecture Abbottabad Campus in his inaugural speech, at the launching ceremony of Summer Studio under Design Discovery Pakistan (DDP's). The DDP is a coalition of prestigious architecture institutions which include Architecture Departments

earthquake it was imperative for architects and structural engineers to sit together to design and conceptualize durable and workable designs for future work places. "The catastrophe we faced on Oct 8, demands for a durable solution from experts so that we don't face similar problems in future", he added.

Prof. Mussarrat Shah, Coordinator Abbottabad Campus in his address informed that the Department of Architecture, established in 2004



of Karachi University, NED University Jamshoro, Mehran University Karachi, National College of Arts, Lahore, Indus Valley Karachi and NWFP UET Abbottabad. This coalition was inaugurated on the day of launching studio.

Mr. Shahab Ghani Khan, Chairman, Pakistan Council of Architecture & Town Planners (PCATP) was the chief guest on the occasion. He appreciated Abbottabad Campus in taking a lead to launch the Summer Studio. He said, after the 8th October

with only intake of thirty students has grown into a full fledged department with one hundred and thirty students.

Other speakers who spoke included, Dr. Abdul Qayyum Khan, Senior Architect, and Daniel Treinen, architect from USA.

Mr. Daniel delivered presentation on architecture diversity, details and technology. While Dr. Abdul Qayyum Khan highlighted features of architectural designs of different buildings in Pakistan.

## RESEARCH PAPERS ACCEPTED

- Engr. Syed Mohammad Ali, Asstt. Prof. Department of Civil Engineering, pursuing his indigenous Ph.D with Prof. Dr. Akhtar Naeem Khan, has conducted the first quasi-static cycle test on reinforced concrete bridge column in May 2007. The test involved preparing a model bridge column, subjecting it to vertical dead load, and then performing cyclic test under displacement control on the column which provided invaluable data of the column hysteresis. Various test arrangements were fabricated indigenously, which will open doors for future tests on masonry walls, RC columns and other such structural elements.
- A research paper written by Engr. Syed M.Ali and Prof. Dr. Akhtar Naeem Khan on Live Load Testing of Ayub Bridge has been accepted for presentation in Structural Health Monitoring of Intelligent Infrastructure (SHMII-3) Conference to be held in November 2007, Vancouver, Canada.
- Two papers, "Behaviour of Masonry Buildings in Mazaffarabad during October 08, 2005 Earthquake" and "Performance of Concrete Buildings in Mazaffarabad Earthquake" written by Engr. Amjad Naseer and Dr. Akhtar Naeem have been accepted in the International Conference on Seismology and Earthquake Engineering, Tehran, Iran.
- A research paper titled "Use of Natural Pozzolano as Partial Replacement of Concrete" has been accepted for publication in the first International Conference Advances in Cement Based Material and Applications in Civil Infrastructure (ACBMACI), to be held on December 19-21, 2007, Lahore.
- Dr. S. Waqar Shah presented a technical paper on "Coordination Through Multicast Messaging in a Multiple-Mobile Agent System (MMAS)", at IEEE International Conference on Electrical Engineering ICEE 2007 held at Lahore on April 13-14, 2007.

## IN-FOCUS: DR. SYED RIAZ AKBAR

Dr. Syed Riaz Akbar graduated as Mechanical Engineer from UET Peshawar in 1989. He completed his MSc. in Industrial Engineering from Wichita State University, Wichita, Kansas, in 1992. After the completion of master's, he worked as Asstt. Professor for four years (1993-1997) at UET Peshawar. He completed his Ph.D from George Washington University USA in 2003. Recently he has joined the Department of Mechanical Engineering as regular faculty, where he is actively involved in teaching and research in the areas of transportation safety, intelligent traffic systems and artificial neural networks



Dr. Riaz has a vast experience in teaching and research, and has conducted several studies related to transportation safety. He has worked with George Washington University as research fellow, from 2000 to 2003. He has worked on many research projects for various government and private organizations, including US Department of Transportation, Federal Highways Administration, Federal Motors, Carrier Safety Administration and FORD Motor Company.

Dr. Riaz has been associated professionally with various national and international organizations, including Society of Automotive Engineers (SAE), American Society of Civil Engineers (ASCE), Intelligent Traffic Society of America (ITSA), Alpha-Pi-Mu, Industrial Engineering Honor Society and American Society of Mechanical Engineers (ASME)

He has authored and co-authored many research papers in journals of national and international repute. He is reviewer of many international journals, including International Journal of Human-Computer Studies, Intelligent Transportation Society of America (ITSA) and American Society of Mechanical Engineers (ASME).

### *With compliments*

*Directorate of Media & Public Relations,  
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#### **CORRESPONDENTS**

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## NEWS BRIEFS

- Final Year Engineering (all branches) Annual Examination 2007 will commence from 01-09-2007.
- A soil, concrete and workshop laboratory has been established at the Electrical Engineering Department, Bannu Campus.
- WCDMA Workshop was held on 3rd March, 2007 by Dr. Ismail Shah, President Pakistan CDMA Forum.
- Technical paper "DoS and DDoS Attacks, Analysis and Prevention" by Shah Mahmood, got 2nd prize in the 22nd IEEE student seminar held at PAF KIET, Karachi on 6th March, 2007. The paper has been accepted for publishing in the research journal by PAF KIET.
- A "Network Security Group" has been constituted to do research and development in the field of Network Security. It is headed by Engr. Shah Mahmood, and has students of Departments of Computer System Engineering, Electrical Engineering and Computer Science & Information Technology as its members.
- Engr. Iqbal Zeb Khattak successfully presented his M.Sc thesis entitled "Developing & Testing of Low Cost Household Sand Filter for Purification of Ponds Water for Human Consumption in Rainfed Areas". He was supervised by Dr. Taj Ali Khan, Department of Agricultural Engineering.
- Seventeen fresh agricultural engineering graduates have been employed as Water Management Officers (WMO's) in the "National Program for Improvement and Lining of watercourses in NWFP".
- Literacy Debating Society, Bannu Campus, organized a declamation and quiz competition on 27th April, in which 15 different universities and colleges participated, including Bannu Medical College, University of Science & Technology Bannu, Virtual University, Sarhad University of Science & Technology. The chief guest was Engr. Mohib Ali Shah, Coordinator, Bannu Campus.
- IEEE-CREATE team, comprising of nine members, including students counselor, paid a promotional visit to Abbottabad Campus and COMSATS Abbottabad on May 23, 2007. The visit was aimed to attract new members to IEEE, by highlighting different aspects of the organization as well as the benefits that await them at IEEE. Through effective presentation, the CREATE team was able to inspire interest in the students of COMSATS Abbottabad to join the IEEE platform.