27 year old IEEE Karachi has reactivated the Section since the later part of 2008. A group of dedicated volunteers have continued to ensure that minimum activities are managed and it is gratifying to note that IEEE Karachi is back on the road to recovery. Our financial position has stabilized, over 3 conferences have been sponsored and student activities have commenced with the recent participation at IEEE Region 10 Student Congress 2009 at Singapore resulting in the Pakistan team winning the position in multicultural stall.

We encourage professionals to take advantage of the networking and technical infrastructure of IEEE by becoming active members.

SHEIKH IMRAN UL HAQUE
CHAIR IEEE KARACHI SECTION
IEEE 125th Anniversary Asia-Pacific Student Congress from 16 – 19 July 2009 at National University of Singapore was successful, purposeful and entertaining besides providing an opportunity for technical knowledge, leadership skills development & networking for all active and enthusiastic Pakistani student delegates.

All student delegates passionately and energetically represented Pakistan and as a result they all won and secured positions and honors besides doing great efforts for making positive exposure of our beloved country in this International event.

Following are the competitions and titles in which Pakistani student delegates got positions and awards:

- Won Bronze Honors in an Innovative Idea Competition organized by IEEE Singapore Section Power and Energy Society (Saqib Munawwar “HIIT Student & SSR IKS S&B” and S. Synnia Tanveer “Chair GCUL SB”).
- Multicultural Exhibition and Vibrant Student Branch Exhibition.
- ISBIR case study Presentation (Sohaib Qamar “Treasurer IEEE NUCES SB” & S. Synnia Tanveer).

It is a matter of immense pride for IEEE Karachi section that

- All Sections of Pakistan got Certificate of Appreciation for organizing SSC (Section Student Congress) Chair PSC 2008 (Amir Zahoor) by GCUF, Chair PSC 2009 (Osaid Khaliq) by SEECS. A special announcement was made by Prof. Dr. Mini S. Thomas (R10 SAC Chair) in Award Distribution Ceremony for organizing IEEE KSSC 2008 at PNEC; Chair KSSC 2008 was Syed Ali Asad Rizvi.

Delegates had meetings and discussions with different IEEE dignitaries and student volunteers from different countries like Australia Bangladesh, Canada, China, Japan, Germany, Hong Kong, India, Indonesia, Korea, Macau, Malaysia, New Zealand, Philippines, Portugal, Singapore, Sri Lankan, Taiwan, Turkey, USA and Vietnam that enhanced the networking skills of all students.

Overall, it was a wonderful learning experience in all aspects that helped in reshaping perceptions of students regarding the theme of R-10 Conference that was “To Sculpture Student Leaders to pioneer sustainable development”.

Report by:
Saqib Munawwar
SSR IEEE Karachi Section
IEEE Karachi Section Student Activities Committee held its 2nd meeting of the year 2009 under the SAC Chairman on Saturday, June 20, 2009 at Graduate School of Engineering Sciences and Information Technology (GSESIT), Hamdard University, Karachi, Pakistan. 17 students from 10 different IEEE Student Branches and Chapters at IEEE Karachi Section participated, namely – FAST-NU, FAST-NU Computer Chapter, GINI, GSESIT, HIIT, NEDUET, NEDUET WIE, PNÉC, SZABIST, and UIT. SSR and a GOLD member were also present.

During the meeting, various things of interests were discussed including:

- Celebrating 125th year of IEEE in different IEEE Student Branches in Karachi
- Newsletter of IEEE Karachi Section
- Results of Pakistan Student Congress 2009
- Interaction with R10SC Selected Students from IEEE Karachi Section
- Reporting Status of IEEE Karachi Section Student Branches
- SSR and GINI report
- Proposal Presentation for SCONEST 2009, KSSC 2009, and PSC 2010
- WIE AG Status in different IEEE Student Branches in Karachi
- Future Plans for CS Chapter at IEEE NUCES SB

All participants were jubilant on cake cutting for celebrating 125th year of IEEE at IEEE Karachi Section Level during the meeting. Different Student branches are also celebrating IEEE 125th anniversary at various events of their branches.

It was decided to have 3rd SAC Chair and IEEE Student Branches meeting in September 2009.

SAC Chair emphasized each Student Branch to maintain

- IEEE School Code and IEEE Branch Code
- IEEE Student Branch Bank Account
- IEEE Student Branch Web Site
- Reporting for new officers and their contacts
- Annual reports for next-year plan and past-year activities within due dates to get proper rebates
- Have membership campaigns in April [for half-year] and in October [for next-full-year]
The Section Student Representative IEEE Karachi Section second progress report as follows.

MAY 2009:
- Coordinated with Director IICT-SU Dr. Imdad Ali Ismaili for Student Branch.
- Had discussion with Vice Chair IEEE Karachi Section regarding 1st IEEE Karachi Section Newsletter, UIT, Potential SBs and BUITEMS.
- Successfully coordinated for establishment of IEEE BUITEMS SB
- Participated in 03rd IEEE PSC 2009 at NUST-SEECS Islamabad.

JUNE 2009:
- Conversation with Director IICT-SU & Faculty Members on establishment of IEEE Student Branch.
- Discussion with Counselors of MUET, Bahria University & BUITEMS on student nomination of NUST-SEECS Research Summer Internship Program.
- Attended Ex-Com Meeting/Farwell Dinner to Secretary Engr. Om/Welcome Dinner to new Ex-Com. members Prof. Engr. Dr. Vafiuddin & Prof. Engr. Dr. Bhawani Shankar Chowdhry at Sunset Club.
- Participated in SAC Meeting at GSESIT, HU.

JULY 2009:
- Had discussion with Asst. Prof. Engr. Adil Rahan for the establishment of IEEE SB at CoE, PAF-KIET.
- Represented Pakistan in IEEE 125th Anniversary Asia-Pacific Student Congress held at National University of Singapore. Won Bronze Honors in an Innovative Idea Competition by IEEE Singapore Section Power and Energy Society. Bronze Honors Certificate of Achievement awarded by Prof. Dr. Mini Shaji Thomas (Asia-Pacific SAC Chair) & presented by Dr. Lewis M. Terman (2008 IEEE President & CEO). Participated in Multicultural Night Performance (Performed Rasm-e-Hina & Attan Artistically Traditional Dance). Had discussion with the student delegations from other countries and dignitaries of IEEE.
- Coordination is in progress with Prof. Rashid Baig (Chairman Electronic Engineering. Dept., Dawood College of Engineering & Technology) for IEEE membership & establishment of IEEE SB.

Reported by:
Saqib Munawwar (SSR IEEE Karachi Section)

NUCES STUDENT WINS LARRY K WILSON AWARD

Larry k Wilson award is presented to a student as token of appreciation and acknowledgement who achieves stupendous accomplishment associated with IEEE student activities in respective Region, Section, Student Branch or Student Branch Chapter. The winner receives an Award Plaque and three years free IEEE membership.

In IEEE Asia-Pacific Region Larry K. Wilson Award 2009 winner is Ravendar Lal Bhojwani. He received this award for his outstanding contributions to the ongoing GINI Pakistan project, to the student branch, Section, and Region. Congratulations!

Ravendar Lal Bhojwani is an undergraduate student at National University of Computer & Emerging Sciences (NUCES), Karachi. He is GINI Pakistan Representative, Volunteer – IEEE NUCES Student Branch – IEEE Karachi Section.

SOFTWARE BASED NAND FLASH MANAGEMENT TECHNIQUES

Flash memory is rapidly becoming the storage medium of choice in embedded applications. It provides non-volatile storage with low-power consumption, ruggedness, small access times, light weight, and cost effectiveness. However, there are a number of difficulties associated with using Flash for applications where the data stored in the non-volatile memory changes frequently, as is the case with PDAs, USB flash drives, MP3 players, digital camera media cards, and cell phone memory cards. This paper discusses these difficulties and possible techniques and solutions. This paper also gives a brief overview of an efficient flash translation layer for current very large page Nand flash.

By: Jamshed Dastoor
(BE EL- NEDUET, IEEE MEMBER)
On 29 May 2009, IEEE NEDUET Student Branch was represented by seven members in PSC'09 at NUST SEECS, Islamabad. Muhammad Babar, Saad Siddiqui and Muhammad Owais represented Student Branch Activities whereas Sana Sultan and Tehmina Khan represented the NED IEEE WIE Chapter. IEEE NED Student Branch takes immense pride in leading the first WIE Chapter of the Karachi Section. The branch also received appraisals regarding the presentation and activities at the event. The Memoirs of PSC'09 are cherished and unforgettable with joyful journeys, and pleasurable moments. In this expedition, we have experienced the professionalism, interaction and co-ordination with people present from all across Pakistan belonging to different regions. PSC proved to be an extraordinary event for social networking.

BANNER DESIGN COMPETITION
A banner design competition was held by WIE-NED in the first week of April 2009. The event received great interest from the students on campus. The competition was judged by Mr. Mekaal Arshad (Bachelors from NCA, Lahore & currently doing Masters in Architecture from Korea). The innovative design by Ms. Hina Gohar (3rd year Electronics) appealed to him the most and was declared a clear winner. CONGRATULATIONS Hina!

THE WINNING ENTRY
A warm thanks from WIE NED to all the creative participants. A special thanks to Mr. Mekaal Arshad for judging the contestants.

SEMINAR ON SWITCHED CAPACITORS
Focusing on the academic grooming of talented and brilliant students of NED, WIE NEDUET organized an enlightening and very informative seminar on “Switched Capacitors” on 25th July 2009 in CIS lecture hall. The seminar attracted a huge audience because of its captivating theme related to the latest technology in analog design across the globe.

The mesmerizing seminar was given by Mr. Junaid Alam B.E (Electronics) from NEDUET and M.S from Germany. After working as an independent consultant for some time, he is currently working as a consultant in NCC, a computer related consultancy firm. He is currently engaged in a project with Telenor. He elucidated each of his points through a magnificent presentation. This seminar unfolded various aspects of the mystifying & intriguing world of analog which was once considered to be complex and some sort of black magic!

MEMBERSHIP CAMPAIGN AT LEJ CAMPUS NEDUET
To gather future engineers under one platform through which they can strive mutually for technical innovation and excellence, IEEE NED branch held a membership campaign at the LEJ Campus of NEDUET which was appreciated by the Chairperson of the Department of Biomedical Engineering.

An edifying presentation outlining the history of both IEEE and its student branch at NED was given by Ms. Shehreen Rafiq, Head of membership committee. An interactive session by Ms. Faiza Zafar, Secretary WIE-NED, was next in which she demonstrated how IEEE Women in Engineering is endeavoring continuously to bring an everlasting change by empowering Women engineers.

The event received an overwhelming appreciation from students as well as faculty and many of them showed their interest in becoming an enthusiastic member of IEEE.

UNMANNED LAND VEHICLES
ABSTRACT: Unmanned Land Vehicles (ULV) is systems, which can find their paths by their own decision-making. They utilize different sensors and actuators for making efficient navigational capabilities.
PUBLISHED IN: NEWZEALAND in FEBRUARY, UK in MARCH
APPLICATIONS: In industry and agriculture for more accurate results
FUTURE RECOMMENDATION: IN ROBOTICS
BY: RIAZ UN NABI (ASSISTANT PROFESSOR NEDUET)
SEMINAR ON SOLAR CELLS
For IEEE NEDUET, 16th July 2009, marked yet another highly successful and thriving event. A seminar on “BUILDING ENERGY BY SOLAR CELLS” was held at the NEDUET Auditorium in collaboration with IEEEP. This event attracted a remarkably huge audience as the distinguishing factor this time was a workshop by an eminent scholar from the US Mr. Richard Komp.

Professor commenced the session by the multimedia presentations. The audiences were delighted with the way he communicated his overall theme and were mesmerized by his own experience of how he himself benefited from the solar plants at his house in Maine, USA. He also showed some major projects using solar cells. At the end of the presentation, a brief Q and A session was held in which he convinced the audience of the superiority of solar plants over other power plants. To put the occasion to an end Mr. Uzair Saeed, Chairman IEEE NEDUET, heartily thanked Professor Komp for his passion to spread knowledge.

In a country like ours, which is suffering from severe energy crisis, there is a serious need to ponder over alternate methods of power generation and utilization of solar energy could be the best of them. Who knows we may be looking at the technology of the new millennium- the power of the future!

FACTORY VISIT TO SIEMENS PAKISTAN
The IEEE Student branch of NED, in collaboration with their WIE SBAG, arranged a complete factory tour of Siemens on July 17, 2009. Siemens is a market leader and a technology pacesetter in the engineering and electronic industry of Pakistan. Total of 35 students of the university, reached the destination at 3:00pm. the drive to the factory was made enjoyable by Mr. Uzair Saeed, the chairman of the branch. Through various activities which involved active student participation. A few random participants got IEEE.TV pens and WIE magazines for taking part in this activity. WIE candies were also distributed among all the students.

On reaching Siemens, the students were greeted by Mr. Sohail Mehmood, Admin Officer and Media Manager. They were given a brief introduction about Siemens, its headquarters and subdivisions. A documentary on the “Light for Life” Solar Project by Siemens, completed at Azad Kashmir, was then shown. Newsletter of the company was distributed, after which tea was served. The tour of the factory sites then followed. Some of the important sites shown first were the Machine Shop, Winding Shop and Assembly Shop, where the construction of motors was shown step by step. Two transformer factories were shown; one for power transformers other for distribution transformers. In switchboards, High voltage and Low voltage panels were being assembled.

The tour was a capstone experience for all those future engineers who want to make a benchmark in the engineering industry of Pakistan. Over all, it was a wonderful learning experience in all aspects!

CELEBRATION OF 125TH ANNIVERSARY OF IEEE & 27TH ANNIVERSARY OF IEEE NEDUET SB
The student branch of NEDUET celebrated the auspicious occasion of 125th anniversary of IEEE and 27th anniversary of IEEE NEDUET by a fabulous cake-cutting ceremony followed by a splendid tea party. Present on the occasion were Dr. Talat Altaf (Dean ECE), Dr. Ata Ullah Khwaja (Co-Chairman, Department of Electronic Engineering), Dr. Abdul Qadir, Mr. Abdurrahman Javid Shaikh (the branch counselor), Dr. Shoaib Zaidi, Mr. Nauman and other senior faculty members from the university.

The SAC Chair (Karachi Section), Mr. Shahab Siddiqui was also invited to grace the ceremony. All these learned minds gave laudable suggestions to the ExCom about increasing the membership at the campus and offered their valuable support in this regard. Later, all the branch members joined Mr. Siddiqui in the branch office, where the branch counselor, Mr. Abdurrahman Javid Shaikh, cut another cake and celebrations were held to mark the occasion. Everyone present enjoyed the homemade chocolate fudge cakes baked by our treasurer, Ms. Nida Khan.
The month of August marked the happening of a Mega Event, INFORMATIC, a multi seminar session organized by IEEE NEDUET and WIE AFFINITY GROUP in collaboration with ZUMBEEL. The event marked the celebration of 27 years of IEEE NEDUET and 125 years of IEEE. It happened to be predominantly different from the conventional seminars of its kind, respecting the interest of people belonging to both technical and non-technical backgrounds. Seminars in parallel were held in NED Auditorium and CIS Lecture Hall.

The event began officially with the recitation of the Holy Quran. Mr. Abdurrahman Javid Shaikh, Branch Counselor IEEE NEDUET highlighted the student activities arranged by IEEE NEDUET. He then invited the Vice Chancellor of NED and the Dean ECE, Dr. Talat Altaf to share their views on the commencement of the Mega event.

The first Session that took place in the NED Auditorium was on the topic “CHANGING THE MINDSET” by Mr. Shahbaz Islam. This session proved to be the most interesting session from audience perspective because of the mind grabbing style of the speaker. The first session in CIS lecture hall was on The Importance of IP, delivered by Mr. Naveed Abbas. In this session he talked about the revolution in the world after the advent of IP and the role of IP in telecom networks. In the end, he negotiated about the job demands in flourishing the career in the field of IP.

The second session in the Auditorium was entitled “WHY WIMAX?” by Mr. Sumair Siddique. He revealed the secrets of WIMAX Technology which is higher than the conventional technologies of its kind. Second session running in parallel in CIS lecture hall was “DEVELOPING ENTREPRENEURSHIP SKILLS”, presented by Dr. Sajida Zaki. She debated on the skills of entrepreneurship, shared the ways to develop those skills and enlightened audience with its importance.

The next session that took place in the Auditorium was on “JOB HUNTING TIPS & TRICKS”, conducted by Mr. Mohsin Jafri, CEO ZUMBEEL. He emphasized that Job Hunting is merely an ART of looking for an employment. Third session in CIS lecture hall was LTE v/s 3G, delivered by Mr. Amir Abbas. He described LTE, its evolution and discussed the leverage of LTE over 3G which mainly includes expanded bandwidth and frequency.

The fourth, and perhaps the best session in terms of student turnout held in the NED Auditorium was “SUPER HEROES ARE REQUESTED NOT TO APPLY FOR JOBS”, by Mr. Atif Murtaza. In his brief session, he threw light on the characteristic of good team players who are smart working more than hard working and optimistic in their approach, knowing their onions above all. Fourth session in CIS lecture hall was “POWER CRISIS” presented by Mr. Muhammad Nauman. He shared the reasons of the shortage of power in Pakistan and presented the solutions to overcome the crisis.

The last of the proceedings held in the NED Auditorium was entitled ”INTRODUCTION TO COMPRESSIVE SENSING”, by Mr. Syed Faraz Ahmad. This session also turned out to be a very informative one for students who wanted to pursue their career in Image Processing. Fifth and the last session in CIS lecture hall was on RF Engineering delivered by Mr. Ali Bukhari, the regional manager, Telenor. He gave a brief overview of telecom industry architecture and highlighted the needs of RF Engineering.

In the closing ceremony, held in the NED Auditorium the speakers, dean and branch counselor were presented with Mementos as a token of appreciation for their effort and time in making Informatic a success. INFORMATIC received the highest ratings in program’s history in Karachi, including inherent value, usefulness, applicability, delivery, and overall results. On the whole, it created the conditions and environment which will foster new ways of thinking for students that live in a world that is increasingly globally connected. INFORMATIC highlighted the ways that long-term, in the community provide the time and context for experiences that enable the students to develop technical depth and multi-disciplinary breadth, acquire and hone many professional skills, create products that have a significant impact on their community and grow as individuals, engineers, and citizens.
As a part of its IEEE 125 years celebrations, Pakistan Navy Engineering College IEEE Student Branch (PNEC – NUST) in collaboration with IEEE GINI (Global Integrated Network of IEEE) gave Karachi Section student members a chance to show the world their funny side by holding the “So you think you are funny?” contest, on Saturday, 18th of April, 2009. This was the first competition of its kind in IEEE Karachi section.

CAREER COUNSELLING SEMINAR

As a part of the series of events of IEEE’s 125 years’ celebrations, IEEE-PNEC recently hosted a Career counseling Session in Karachi at PNEC on Friday 22 May, in collaboration with IEEE GOLD Karachi Section. The event enjoyed enthusiastic student participation from several IEEE Karachi Student Section Branches and a receptive involvement of leading engineering professionals associated with local and international organizations. It successfully brought together industry professionals and students from different universities on a single platform enabling one-to-one interaction for the mutual benefit of both, the former divulging the professional requirements for the students, and later learning to mould themselves with those requirements.

PNEC BRANCH CONFERENCE

The IEEE Members of PNEC got together on 23 July 2009 to acknowledge the generation of their rapidly increasing numbers. The event was all the more significant as it was an opportunity for the students to garner from the experience of Ali Asad Rizvi, who arrived just a day earlier after attending the Region 10 Conference held in Singapore. The Conference also celebrated the sheer appreciation of Pakistan’s stall at the Multicultural Moot in the R10 Conference, and convened important discussions for the activities to be held in the Autumn Semester 2009. The important conclusions reached were:

- Increase the number of PNEC IEEE Members, establish a point-based system for structuring IEEE PNEC, strengthening the Ex-Com and launch Volunteer Awards
- Establish the IEEE PNEC Newsletter platform
- Organize the PNEC Ethics Competition
- Make the PNEC WIE Chapter more active with programs aimed to inculcate the skills of women in engineering
- Start personalized IEEE Contact Cards
- Organize IEEE PNEC Education Programs in Shantinagar
- Maintenance and development of IEEE PNEC website
- Organize a Fresher Week in collaboration with other local societies, which includes MY PNEC
- Arrange more programs, both intra-university and inter-universities for IEEE’s 125 years of celebration

The Conference concluded with a strong vow of consolidating IEEE PNEC and enlarging it for the benefits of the students and keeping a pledge with the organization itself.

COMPUTER VISION AT IEEE

Research work on Object Tracking through Computer Vision was carried out by Mr. Owais Mehmood of NEDUET. Object Tracking is a challenging task in vision, which involves automatically following the movements of objects in the video. The work focused on Kernel tracking using density based appearance models. For example, the kernel can be a rectangular template or an elliptical shape with an associated histogram. Objects in the videos are tracked by computing the motion of the kernel in consecutive frame.

By: Muhammad Owais Mehmood, IEEE NEDUET
IEEE Computer Society chapter of FAST NUCES Karachi is the first of its kind in the country. The FAST NUCES Karachi Chapter of IEEE Computer Society aims to extend the activities of the student branch to the academic streams like Computer Science, Computer Engineering and Software Engineering. The goal of this chapter is to raise technical awareness among students and to promote a career in computing.

This chapter aims to serve the computer science students by providing them opportunities to learn the most cutting edge technologies like Microsoft’s .net framework, PHP and Java etc. It also aims to create a liaison between industry and academia through regular interaction of students with industry experts in the form of seminars and workshops.

IEEE Computer Society, NUCES Karachi held its first event “.Net Day” on 11th July, 2009. Three workshops were regulated on different themes that were attended by students from all over the engineering universities of Karachi.

The event commenced with the introduction of esteemed speakers of the day, Mr. Munir Usman, Mr. Adil Mughal and Mr. Adnan Amin. The event was followed by the display of IEEE computer society benefits video. The first workshop in line was on Network programming using C#.net by Mr. Munir Usman assisted by Mr. Amir Ali. The Speakers explained the fundamentals of Network Programming in a very comprehensible way so that the students can grasp them easily. Meanwhile, tea and biscuits were served. Microsoft goodies were distributed as well. The fact, that students were able to make their networking applications despite the topic being advanced, boosted the confidence of the team behind the curtain.

Following the energetic workshop was a seminar on Visual Studio Tips and Tricks by Mr. Adil Mughal. His main emphasis was to bring out different features of Visual Studio 2008 and particularly C#, enunciating that when used, can increase a programmer’s productivity. The seminar was followed by lunch, sponsored by IEEE Computer Society FAST NU. The third seminar was on AJAX using ASP.net by Mr. Adnan Amin. The speaker explained the concept of AJAX and discussed how ASP.NET AJAX eases developers by automatically handling underlying JavaScript. The seminar wrapped up with a demo, given on details related to using Script Manager and Update Panel controls that handles AJAX underlying working.

In the closing ceremony, Mr. Asad Abbas, Chairperson IEEE Computer Society gave a concluding speech followed by Mr. Adil Mughal’s speech that represented Devnext, a user group registered under INETA after which shields were awarded to the speakers. The event proved to be a wonderful experience for the students. The feedback from the students was very encouraging. IEEE Computer Society NUCES Karachi wishes to arrange many such events in the future.


IEEE HIIT Student Branch organized Election for 2009-2010 tenure on Thursday 18th June 2009 at GSESIT, Hamdard University City Campus. Honorable Dean Faculty of Engineering Sciences & Technology (FEST) – Prof. Engr. Dr. Abdul Rahman Memon chaired the election session. The election held in a peaceful and impartial manner. IEEE HIIT SB members participated enthusiastically in ballot voting. Following are new elected office bearers for 2009-2010 tenure along with Branch Counselor, Mentor and Faculty members.

Counselor: Engr. Sayed Hyder Abbas
Mentor: M. Shahab Siddiqui
Faculty Member: Dr. Iqbal A. Khan
Faculty Member: Engr. Ch. Fahad Azim
Chair: Syed Noman Husain
Vice Chair: Sami Ur Rahman
Secretary: Ahmed Hassan
Treasurer: Ahadullah Khan
President Event Organizing Committee: Adeel Ur Rahman

IEEE HIIT Student Saqib Munawwar (Fellow HIIT IEEE SB) actively and enthusiastically participated and prestigiously won Bronze Honors in an Innovative Idea Competition by IEEE Singapore Section, Power and Energy Society. Certificate awarded by Prof. Dr. Mini Shaji Thomas (R10 SAC) and presented by Dr. Lewis M. Terman (2008 IEEE President & CEO). All Pakistani student delegates got positions in Multi-culture events. Saqib’s traditional dress showed a few glimpses of Pakistani culture.

Muhammad Shahab Siddiqui, Dr. Zubair A. Shaikh, and Dr. Abdul Rahman Memon published a research paper on “Towards the Development of Community Algorithm” presented at Proceedings of the 2009 International Conference on Information Management and Engineering (ICIME 2009), Kuala Lumpur, Malaysia.

Muhammad Shahab Siddiqui, Dr. Zubair A. Shaikh, and Dr. Abdul Rahman Memon published a newsletter on “Towards the development of Human Community Ontology”, presented at proceedings of the 2009 World Congress on Software Engineering (WCSE 2009), Xiamen, China.
In January 2009, the research group named CREST (Communication Research in Engineering, Sciences and Technology) started its R&D activities under the umbrella of IICT (Institute of Information and Communication Technologies), Mehran UET, Jamshoro. Since then, the academic staff of CREST has been supervising twelve scientific and research projects at postgraduate level. Most of these projects are completely funded by external resources.

Existing research study in Telemedicine/ Tele-Healthcare area has been granted highest funding. In the same field, six International Publications and Book Chapter have been endorsed by the platforms of IEEE, Springer, ACM and In-Tech web. The point of interest for scientists, researchers and technology readers is that, CREST researchers started from a novel idea of developing a framework for DIGITAL ASSESSMENT OF SECURITY in Wireless Sensor Networks (WSN) and then started applying the WSN in Tele-healthcare systems for designing and development of new but low-cost Tele-medicine methodologies for developing countries, such as Pakistan. The group has a major focus on remotely located places with limited healthcare resources of Pakistan. With the recent add-on of latest wireless motes, OPNET and Free-Space Optics (FSO) equipment, the advanced procedures in Tele-Healthcare field can be designed, simulated and evaluated with optimal results.

The CREST-group extended its research collaboration with involvement of various reputed professors, International labs and their resources in couple of existing research projects. Long-term research in the group focuses on communications, computing security, data engineering and control applications. It provides ideas for more short-term, applied research, while directly appealing to industrial partners across the national and international boundaries. In addition, various academic institutes have agreed to collaborate unconditionally in research at CREST-group. As such, a few names are:

- Kyushu Institute of Technology (KIT, Japan)
- Nara Institute of Science and Technology (Japan)
- University of Southampton (Southampton, U.K)
- Centre Technologic de Telecommunications de Catalunya- CTTC (Barcelona, SPAIN)
- NED University (Pakistan)
- NFC- Institute of Engineering and Training- IET (Pakistan)
- Quaid-e-Awam University of Engineering and Technology- QUEST (Pakistan)

In the following, a few leading titles of funded projects at CREST- research group are given.

- Digital Assessment of Security of Wireless Sensor Networks
- The e-Health Grid for Post-Operative Care Through Wireless Sensor Networks
- Uni-T-NeT: A Study of Unified Platform for Futuristic Tele-HealthCare World
- Improving QoS in Wi-Max and Ad hoc Wireless Networks

There are various other projects being carried out in the field of Tele-Communications, Software Engineering, Data Mining and Control Systems Applications. To enhance the research collaboration and share research resources, the group has planned to place an open invitation to guide local research. This way a national manpower can be generated expected to be full of knowledge and required skills of the market needs. The group will soon be launching its website with all details of accomplished and existing projects. The resources can then be shared and used by research community at large.

By:
Dr. Adnan Ashraf (CREST-research group)
IICT, Mehran UET, Jamshoro, Pakistan
NEW BRANCH OF IEEE AT BUITEMS

The IEEE students branch Baluchistan University of Information Technology, Engineering and Management Sciences (BUITEMS) Quetta, Pakistan was formed in April this year as the first IEEE SB in Baluchistan, Pakistan. BUITEMS started IEEE SB with 27 Student members and membership is steadily increasing.

During the year 2009, BUITEMS is planning to organize the first International Conference on Information and Communication Technologies – Theory and Applications. Besides, a series of seminars, workshops and guest speaker sessions are also planned this year. The IEEE SB at BUITEMS will serve as a vibrant platform for the students of BUITEMS to become scientists and researchers in promoting technology for the welfare of humankind.

On May 12, 2009, the executive committee of BUITEMS IEEE SB was elected with the following members:

- Chairperson Raza Ali
- Vice Chair Atika Sajjad
- Secretary Haroon Hussain
- Treasurer Syed Tariq Shah
- Counselor Faisal Ahmed Khan
- Mentor Bakhtiar Khan Kasi

The BUITEMS IEEE Student Branch is planning for the development and enhancement of technical skills of students and hence play a vital role in promoting research-oriented culture at BUITEMS and in Baluchistan at large. Members of the BUITEMS IEEE SB are committed to promote the vision of IEEE of Engineering the Future. It is hoped that the SB at BUITEMS will serve for the spreading and promoting engineering education in the Baluchistan region of Pakistan.

MOVIE SHOW AT BUITEMS

A movie show was held June 23, 2009 in Seminar Hall-I at Takatu Campus, Balochistan University of Information Technology, Engineering & Management Sciences (BUITEMS). The show was organized by BUITEMS IEEE Student Branch under the counseling of Mr. Faisal Khan, Chairman – Telecommunication Engineering. The show was aimed to entertain the students as well as to raise funds for the Student Branch. All the IEEE Student Branch members actively took part in making the event successful.

Students and faculty members purchased tickets and made their presence on the event. The movie chosen for the event was “Spirit: Stallion of the Cimarron”. It is an animated story of a wild horse named Spirit and his adventures.

The movie ended with inculcating high spirits among the audience. The event was highly appreciated. The movie show has marked the beginning of recreational events of IEEE Student Branch as it aims to bring technological excellence among the students by supporting both academic and non-academic events. The IEEE Student Branch plans to organize more such activities in future.

By: Atika Sajjad
Vice Chair IEEE BUITEMS

A SEMI-AUTONOMOUS COMBAT ROBOT WITH EXTENSION CAPABILITY

Teleported mobile robotic systems are remotely operated vehicles designed to perform tasks in coordination with human operators. However, teleportation can be realistically enhanced by a level of automation removing challenges such as constant monitoring. The aim of this paper is to develop a behavior based control paradigm for the control of such a teleported semi-autonomous robot whose mission goals can be loosely specified. Compatibility of design with commercially available reprogrammable, multifunctional manipulators increases the span of the goal specification. Different parts of the robotic system; sensors, hardware, control interface, mapping and localization are also introduced throughout the paper.

By: Jamshed Dastoor
(NEDUET, IEEE member)
MESSAGE FROM EDITOR

This newsletter, coupled with an undying zeal to strive for the professional growth of students in order to have a prosperous and better Pakistan, is the acknowledgement of IEEE Karachi Section’s mission that is *To help students to spark the 'Fresh Start' in terms of innovation in technology and social networking*. It is hoped that this newsletter will serve as a communication tool to disseminate information and strengthen the bond between different student branches, thus beautifully representing the idea of freedom of speech that is liberty in a true sense and providing a platform where voices are heard and opinions are valued!

This newsletter is our small tribute to the appreciable achievements of various student branches in the fields of research, educational and non-educational events. It is expected that this newsletter will reduce the distances between the various branches, opening ways of fruitful co-operation & collaboration. Our sincerest gratitude to all those learned minds that helped us in this exhilarating journey and supported us in turning our dream into a beautiful reality!

Wishing you best of luck! 

Sincerely

Sana Siddiqui
Editor-in-Chief

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**NEWSLETTER TEAM**

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