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Message from Head of Department

It is a great pleasure to see the April, 2011 Issue of EE newsletter. On this occasion I would like to welcome the new faculty, staff, and students of the Electrical Engineering Department at COMSATS, Lahore. I would like to thank my existing team for their commitment and hard work. Our mission includes a commitment to prepare students for professional and research activities with an ability to learn independently, work within a diverse multi-cultural environment to pursue a spectrum of careers, enabling them to become global leaders in their respective fields. I wish you all a successful, long-lived, engineering-based career path.

Dr. Saleem Farooq Shaukat, HoD EE.

Undergraduate Final Year Projects Exhibition

Project exhibition was held on 3rd February, 2011 at Department of Electrical Engineering, CIIT Lahore. Final year undergraduate students of BSEE (Computer) and BSEE (Telecomm.) presented their final year projects. More than 50 industrialists and educationists from various industries and universities attended the event.

All participants appreciated the efforts, academic skills and knowledge of participating students. They also praised the EE faculty under whose supervision and guidance students were able to complete such valuable projects. They also showed interest in collaboration with EE department on their industry relevant projects. Event was a major step toward collaboration of CIIT with industry and other universities which will be helpful for graduating students to pursue for job or further education.

The guests were welcomed and introduced to EE Department, CIIT Lahore in welcome speech given by Dr. Saleem F. Shaukat, Chairman/HOD EE. He also highlighted the recent activities and achievements of EE department. It was followed by the speech of Prof. Dr. M. A Bodla, Director CIIT who highlighted the achievements of CIIT Lahore. He also elaborated the importance of Final Year Projects in context of industry academia collaboration. He appreciated and wished the graduating students for their bright future.

After Director’s speech, Dr. Ali Nawaz Khan, as a convener of the Event Management Committee and in charge Project Advisory Committee presented to the audience, dynamics of FYP and praised his team for the successful execution of the event. At the end souvenir were presented to all guests and tea was served.
APTECH 2011

Introduction

APTECH All Pakistan Technical Paper/Poster competition. APTECH 2011 is an undergraduate Final year project based paper and poster competition that aims to provide an occasion to present original and innovative work carried out by young engineers during their final year project in form of scientific research papers and posters. It aims at giving engineering students the opportunity to learn from the best and interact with the fellows in the field of electrical, electronics and computer engineering.

Since it is based on actual conference pattern and there’s been no such event organized so far, APTEC is the perfect platform to learn about hands-on research methods.

APTECH will motivate and encourage students all around Pakistan to show their hidden talents and abilities.

Making APTEC a reality involved a lot of background work. Invitations were sent out to all the universities in Pakistan. APTEC was widely advertised as well. The response of the students from all around Pakistan was impressive. These papers were then put together and were allotted ID-Numbers. Next the research papers were forwarded to the honorable faculty of CIIT-Lahore.

HEC Best Research Paper Award

“HEC has established a program for recognizing and rewarding research achievements in various fields. Under this program, Pakistani scholars are acknowledged for achievements in their respective fields of specialization through a series of annual awards.”


Dr. Intesar Ahmad is Associate Professor and Head REAPS (Renewable Energies and Power Systems) research group at Department of Electrical Engineering. REAPS is multidisciplinary group that fosters collaborative research efforts and advance in the areas of efficient and sustainable Power System Technologies. Currently the group is engaged in developing both fundamental and applied knowledge that is required for the next generation of low-emission, high efficiency power generation system.
Research and Publications

REAPS- Renewable Energy and Power System Research Group

Acceptance of Manuscript in IJET


Research Productivity Awards

REAPS Research Group has won two Research Productivity Cash Awards. Dr Intesar Ahmad and Kashif Imran have both received Research Productivity Awards from Principal Seat of COMSATS Institute of IT. These awards were granted on the basis of quality research during 2009 and 2010 including two papers in Impact Factor International Journals.

WSN - Mobile Communication and Networks

Publications


Projects

Some of the ongoing projects supervised by Dr Ali Nawaz Khan and Mr Saim Ghafoor are:

- Application of Wireless Sensor Networks in Health Care and Remote Monitoring
- Early Warning and Health Monitoring System using Wireless Body Sensor Networks
- Lighting Control for Industrial Automation using Wireless Sensor Networks
- Data Dissemination Technique in Wireless Sensor Networks using Network Coding

Mr Salman Khan and Mr Farhan Pervez have received Grant for the International Masters Program 2011 from University of Helsinki, Finland.

The WSN team welcomes its new member, Mr. M. Sakhar Arshed, who recently joined EE Dept as Lecturer in February 2011.
COMVIS - Computer Vision Research Group

Journal Publications


Conference Publications


M. H. Khan, M.S. Sarfraz, A Probabilistic Framework for Patch Based Vehicle Type Recognition ,in Int. Conference on Computer Vision Theory and Applications (VISAPP 2011), Portugal, March 5-7, 2011

Co registration of Space-borne Optical and SAR satellite Images— Joint Project with TU, Berlin, Germany

COMVIS has started a joint project with “Computer Vision and Remote Sensing Laboratory”, Technical University (TU) of Berlin, Germany. The team comprises of Prof. Dr. -Ing. Olaf Hellwich, Dr.-Ing Stephane Guillaso and Dipl.-Ing. David Bornemann from TU Berlin and Dr. Saquib Sarfraz and Engr. M Adnan Siddique from COMVIS.

In recent year, Synthetic Aperture Radar (SAR) Imaging has emerged as the standard tool for the Earth Observation. Spaceborne SAR satellites provide complex images of the Earth, containing information about the scattering characteristics of the viewed terrain. These images find use in numerous applications in various fields of science, such as meteorology, oceanography, agriculture, forestry, hydrology, security, military reconnaissance, cartography, navigation, etc. The information provided by SAR sensors in space can surely be complemented by the information provided by Optical Images (such as those offered by Google Earth). The basic aim of this project is to achieve data fusion among Optical and SAR imaging sensors.

Invited Talk by Dr. Saquib Sarfraz in ICMV2010

Dr. Saquib Sarfraz , Assistant Prof. EE, Head COMVIS Research Group, EE department, CIIT Lahore presented invited talk on the topic “Vehicle Type (Make and Model) Recognition for CCTV forensic Applications”.

He also shared the research work that is in progress at COMVIS research group at EE department, CIIT Lahore with participants of the conference.

MRCN - Multirate Communications Networks

Publications

Seminars and Workshops

Real Time Operating Systems Seminar & Workshop
IEEE Student Branch CIIT Lahore has been organizing many educational and recreational events in the past. In continuation of this tradition IEEE-CIIT organized a seminar/workshop on “Real Time Operating Systems” by Mentor Graphics on 10th January, 2011.

Mentor Graphics is a well known name in embedded systems and electronic design automation, having branches in more than 53 countries which earn them revenue of $1000 million annually. Mentor Graphics is the only EDA Company with an embedded software focus. Their embedded system team consists of 2000 permanent and around 1500 contract engineers; only ESD (Embedded System Division) of Mentor Graphics has delivered 1.6 billion shipments till date.

More than 50 students EE department attended this seminar and software training session on the same day. The event concluded with a certificate awarding ceremony.

Seminar by ZTE
Mobile Communication & Networks Research Group organized a seminar on Transmission Network in collaboration with ZTE University on Thursday, 9th December 2010 at CIIT Lahore. ZTE University is a subsidiary of ZTE Corporation. ZTE Corporation is a telecom equipment manufacturer company having it’s headquarter in China and one if its regional office in Pakistan in I-9 sector since last 10 years.

Objective of this workshop was to equip students with knowledge of latest industrial trends. Event ended with speech of chief guest Prof. Dr. Saleem Farooq Shaukat, Chairman/HOD EE.

Event was arranged with the efforts of Mr. Khurram Zaidi, Assistant Prof. EE and Ms. Fareha Sheikh, Lab Engr. EE under the guidance of Dr. Saleem Akhtar, Associate Prof., Head MCN Research Group, EE.

Seminar on FYPs
This seminar was arranged by Mr. Usman Rafique (MRCN Research Group) on Nov 28, 2011 for the benefit of students who have registered or going to register for the Final Year Project (FYP). Major points discussed in the seminar were the role of FYP in the academic period, its impact on job selection, roadmap of FYP, adviser selection, rules and regulation from the PAC, thesis handling and presentation procedures. In the end of presentation, Dr. Ali Nawaz Khan addressed the attendants and replied to their queries.

Introductory Seminar of IEEE
An introductory seminar of IEEE Student Branch Lahore was held on November 27th 2010. The objective was to create awareness among the Electrical Engineering and Computer Science students of CIIT, Lahore regarding the significance of the world's largest professional association for the advancement of technology. The students were informed about the benefits of joining IEEE as a student member both on the local and international level. They were also informed about the recent IEEE activities, such as an All Pak Quiz competition, "TechnoBrains 2010", gaming competitions and informative seminars outlining the state of the art technologies.

A newly elected IEEE Executive body of IEEE Students Branch, CIIT Lahore was introduced to the students. The seminar was addressed by a fifth semester student, Mr. Ahmed Ali, working in IEEE as Graphics Developer/Speaker. Concluding remarks were given by Dr. Sobia Baig, Counselor IEEE Student Branch /Head (MRCN), in which she stressed upon the students to actively participate in all IEEE activities being organized, in order to increase their exposure and gain knowledge about the ever changing world of Electrical and Electronic Engineering technology.
Co-Curricular Activities

Participation in ICMV2010

COMVIS Research Group, EE department actively participated in 2nd International conference on Machine Vision (ICMV 2010) held on 29-31 December, 2010 and presented projects in area of computer vision. ICMV 2010 is the second in the series of International Conference on Machine Vision organized by College of Telecommunication Engineering, NUST.

3rd Best Project Award in ICMV2010

Mr. Umar Iqbal won 3rd prize for the project titled “Preceding Vehicle Detection and Distance Estimation for Lane Change Warning System” at the conference competing more than 30 computer vision projects from all over the country. Mr. Umar Iqbal is Research Assistant at department of Electrical Engineering and active member of COMVIS Research Group headed by Dr. Saquib Sarfraz.

Trip to Telephone Industries Pakistan

An Industrial Trip to Telephone Industries of Pakistan Haripur Hazara was organized by Mr. Ahmad Mudassir, Assistant Professor Electrical Engineering Department on 10th December, 2010. The trip consists of 35 students and 4 Faculty Members. The Trip was very productive in terms of Electrical Engineering student’s exposure to their relevant applied fields. The PCB designing, Testing, Computer Numerical Control Machines in running condition have been observed and with the cooperation of TIP Engineers for technical Assistance the Industrial trip to TIP proved to be a memorable event.

Best Project Award in FIT 2010

The 9th International Conference on Frontiers of Information Technology (FIT) was held on Dec 19 – 21, 2011, in Islamabad, Pakistan. The first International workshop on Frontiers of Information Technology was organized by COMSATS Institute of Information Technology, Pakistan. The event was co-sponsored by National Science Foundation, USA and COMSATS in cooperation with faculty members from University of Illinois at Chicago and Purdue University. The workshop was held annually till 2008. Since then, it has be upgraded to an international conference. Since its inception, the conference provided a cohesive networking opportunity to the international researchers to share their work. In 2010 FIT was successfully conducted as International Conference on Dec 21 -23 at Serena Hotel, Islamabad.

Students from EE Department actively participated in project competition held at FIT2010 and project titled “Eye Movement based Wheel Chair Control for Disabled Persons” was selected as best project in the competition. Project was supervised by Mr. Atif Shahzad. Mr. Atif Shahzad is lecturer at EE department CIIT, Lahore and active member of COMVIS Research Group.
Extra Curricular Activities

Extra-curricular activities provide students with an opportunity to socially groom themselves and be able to learn other things besides academics.

Farewell Fall2010

As per tradition of EE department, Farewell party was organized for the graduating students of Computer Engineering and Telecommunication Engineering on 31st January, 2011 by their junior batch (FA07) under the supervision of Mr. M. Fraz, Convener Extra Curricular Committee, EE department.

To make the event colorful, there were some skit shows and singing performances by students from both batches. Welcome and thanks speeches were delivered by representatives of each batch. The event ended with formal speech of Dr. Saleem Farooq Shaukat, Chairman/HOD EE department. He wished the graduating students a bright future and hoped that these graduates will bring to light the name of CIIT Lahore. Delicious dinner was also served at the end.

1st Prize in Inter Department Declamation Contest

Inter Department Declamation Contest was organized by ADEEB, literary society of Management Sciences Department, CIIT Lahore on 12th December, 2010. It is matter of joy for Department of Electrical Engineering, that Ms. Aisha Jokhyo, student BCE-B16-ICT and member of EE Literary Society won 1st prize in contest.
Hails and Farewells

EE Department welcomes all faculty members who joined recently.

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Note of Thanks

This issue of newsletter is prepared and published by Departmental Publication Committee. The committee is convened by Mr. Ahmad Mudassir, Assistant Prof. EE Dept.

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