

E.E. Newsletter

Newsletter of Electrical Engineering Department

October 2014 - June 2015



IN THIS ISSUE

- P.2 H.o.D. Message
- P.3 News and Events
- P.3 Convocation
- P.3 Industrial Open House
- P.4 Inauguration of NI Lab VIEW Academy
- P.4 Lab VIEW Training Session for Faculty
- P.4 Inauguration of PES
- P. 5 Inauguration of IET CIIT Lahore
- P.6 HoDs Training
- P.6 Mehfil-e-Mushaira
- P.7 SPREE' 15
- P.7 JUNK ART
- P.8 TECHNOHUNT
- P.8 E Gaming
- P.8 EGGSTRAVAGANZA
- P.9 Meet the Woman Series Seminar
- P.9 Workshop On Interview Strategies
- P.10 Workshop on Women Empowerment and Leadership
- P.11 Seminar on Applications of Higher Oder Sliding Mode
- P.11 Workshop on Robotics
- P.12 International Achievement
- P.12 IEEE Best Branch Award
- P.13 EE Department Students Achievement
- P.13 Research Collaboration by Dr. Mirza Tariq Hamayun
- P.13 Research Collaboration by Dr. Khurram Ali
- P.13 Research Collaboration by Dr. Hafiz Asif
- P.14 Performance in Research
- P.15 New Faculty Joining
- P.15 Faculty Leaving for Higher Studies

By;

Ms. Amna Arif

Message From HoD(EE)



Nikola Tesla, the well known Serbian American electrical engineer is quoted as saying, *“Electrical science has revealed to us the true nature of light, has provided us with innumerable appliances and instruments of precision, and has thereby vastly added to the exactness of our knowledge.”* His words portray the immensely wide and dynamically changing and ever developing world of electrical engineering open to electrical engineers. This is the world which COMSATS Lahore’s Electrical Engineering department wants its ever growing community of students and alumni to explore. EE department functions on the motto that enables its energetic and motivated faculty members to embark on a journey of exploration, innovation and development along with their ambitious students.

Our strength lies in the commitment of our faculty and staff members in carrying out their assigned duties and going all out to help disseminate knowledge to our students. Still if we can go an extra mile in working with our students not only in classes but spending more time with them in laboratories, I believe it would bring a tremendous change in further enhancing problem solving skills in our graduates. Engineering is not merely classroom teaching, it is hands on training more so, and we need to inculcate the urge to innovate, the motivation to work on new technologies and challenge the student’s minds with complex problems.

On the academic front, EE department has been striving hard in updating its laboratories with state of the art equipment, training its students and faculty members on new technologies, and facilitating the faculty members in their higher education career. Five young engineers were sent for Masters Studies in Fall 2014 semester on CIIT scholarship. New faculty members have joined our ranks and we welcome them with an open heart and congratulate them on becoming part of EE department. Several successful visits of Pakistan Engineering Council were hosted by the EE department during the recent past. EE department successfully held industrial open house for graduating students inviting prominent industries to showcase the work of our graduating students and providing a platform of interaction between the employers and their prospective employees.

I’m grateful to all the EE department for their continuous efforts and untiring support in all possible ways, however just a reminder that we have a long way to go before we rest our feet, so let’s continue working together for the betterment of our institute, our country and the humanity as a whole.

Thank you.

Dr. Sobia Baig

H.o.D. EE Department

CIIT Lahore.

News And Events

Convocation

Convocation of CIIT Lahore campus was held on April 25, 2015. HoD (EE) and senior faculty attended the Convocation held at CIIT Lahore Campus. Proctorial Board of EE Department also attended the convocation and ensured the discipline maintenance during the convocation. Professor Robert McKinlay distributed the degrees among the students.



Industrial Open House

Electrical Engineering department COMSATS institute of information technology, Lahore organized Industrial Open House on 13th February, 2015. Representatives from several organizations attended the event. The purpose of organizing Industrial Open House was to give graduating students of engineering an opportunity to interact with technical minds from industry and to provide a platform where students can present their skills. The Industrial Liaison Committee at Electrical Engineering department has used its resources to effectively organize a successful event. Through collaboration and help from faculty, the department managed to welcome representatives from various organizations.



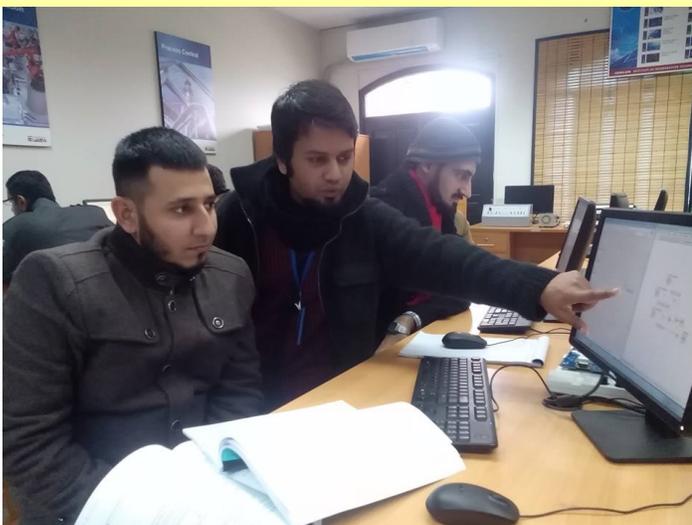
Inauguration of Lab View Academy

Electrical Engineering Department at the COMSATS Institute of Information Technology (CIIT), Lahore has established Lab VIEW Academy at the campus in November 2014. Lab VIEW Academy was established to address rising demands for trained NI Lab VIEW software users. Lab VIEW Academy provides classroom curricula and hand-on exercises to the students. The Lab VIEW Academy aims to facilitate academic institution with classroom curriculum packages to support courses. Upon completion of the course, students have the knowledge and tools to attempt for the Certified Lab VIEW Associate Developer (CLAD) exam.



Lab View Training Session for Faculty

Lab View Academy in Electrical Engineering Department CIIT, conducted one week Core 1 and Core 2 workshop from 5 Jan 2015 to 9 Jan 2015. The workshop was attended by the faculty members and final year students. The workshop aimed to provide vision of Lab view in academia and industry and to facilitate the participants with the Core 1 and Core 2 knowledge.



Inauguration of Power and Energy Society

The inauguration ceremony of IEEE Power & Energy Society (PES) Student Chapter CIIT Lahore was organized on 29th of September, 2014. Inauguration ceremony of IEEE Inc USA – Power and Energy Society CIIT Chapter was held at Seminar Room, CIIT Lahore, Pakistan. Chairperson, IEEE Lahore Section, Dr. Amjad Hussain was the chief guest on this occasion

IEEE PES is a non profit organization which gather engineers who have power and energy related background, with the objective of creating a platform whereby engineers can gather and share ideas and knowledge.



Inauguration of IET CIIT Lahore

The Institution of Engineering and Technology (IET) is the largest multidisciplinary professional engineering institution in the world. The IET was formed in 2006 from two separate institutions: the Institution of Electrical Engineers (IEE), dating back to 1871, and the Institution of Incorporated Engineers (IIE) dating back to 1884. Its worldwide membership is currently in excess of 153,000. The IET's main offices are in Savoy Place in London, England and at Michael Faraday House in Stevenage, England. The IET has the authority to establish professional registration for the titles of Chartered Engineer, Incorporated Engineer, Engineering Technician, and ICT Technician, as a Licensed Member institution of the Engineering Council.

With more than 20 international members we started IET CIIT Student Branch in Lahore campus as it gives a common platform to the students of every discipline which means students which are not engineering students are also welcome in this society as IET means Institution of Engineering and Technology, and Technology is in every field. There are planned activities and special events where students will be able to join in and get hands on experiences as this society aims to bridge the gap between industry and academia, and to provide numerous platforms to students and professionals, all over Pakistan, to exhibit their technical and non-technical skills.



HoDs Training

HoD-EE participated in a, “Strategic Development Workshop for HoDs” in Faculty Development Academy, Islamabad from March 28th to 31, 2015, which all other HoDs from Lahore, Vehari and Sahiwal CIIT campuses were also attending. Various sessions were held during the four day training period by experts mostly from CIIT, principal seat to apprise the participants on significant administrative issues .



Mehfil e Mushaira

Mehfil-e-Mushaira was held on 23rd Oct, 2014 by the EE Department during the Students Week wherein the various famous and prominent poets of the country participated and graced the occasion. Worthy director CIIT Lahore campus Dr. Bodla also graced the occasion . Dr. Khurshid Rizvi presided over the mushaira. Eminent poets like Dr. Khurshid Rizvi, Abbas Tabish, Zahid Fakhri, Asrar Chishti, Ahmad Hammad and Afshan Sajjad graced the occasion .





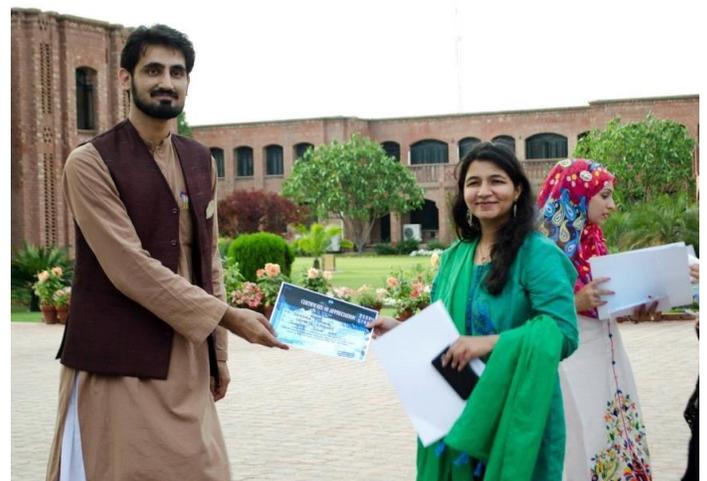
This year IEEE CIIT Lahore and IEEE WIE CIIT Lahore conducted a three day festival named IEEE SPREE, from 8th April-10th April, 2015. The festival included four colorful competitions whose main aim was to test the participant's application of knowledge, physical strength, spontaneous skill and aesthetics. These events greatly helped the participants to enhance their skills, their strength and their ability of working in groups. The event was inaugurated by Director DDP, Dr Farooqi. This gaming competition was divided into four categories which are **Junk Art, Eggstravaganza, Techno hunt, E gaming.**



Junk Art

The event named "Junk Art Competition" was held on 10th April 2015 at CIIT Lahore. Two judges, from CIIT faculty, were invited to judge the event, Miss. Amna Naveed and Miss. Javaria Farooqi.

The theme of the competition was that every team participating would be given trash or junk material and they will utilize it creatively in a useful manner. The idea was given to the participants by the head to create a 3D model of airplane. The purpose of the event was to let students show their creative talents. Students from different universities also took part in the competition.



Techno Hunt

This game was divided in six stages which are as under:

- Morse Code
- Phrases
- Caesars Shifted Alphabet Code
- Pigeon Cipher
- Acrostic Code
- Cipher Wheel

E Gaming

In order to encapsulate the feeling of spring in a 3 day festival, IEEE CIIT LHR organized IEEE SPREE'15 out of whose many facets was an E-Gaming event that was aimed at the revival of the sportsman spirit amongst the students of CIIT Lahore.

Conventional E-gaming events proved to be quite a challenging event as it required intensive multistage planning and execution strategies. The event consisted of two sub events; Fifa 15 and Counter-Strike 1.6.

Eggstravaganza

The event named "EGGSTRAVAGANZA" was held on 10th April 2015 at CIIT Lahore. The competition was based around making a device using a fixed amount of materials provided to the participants that could keep a raw chicken egg intact when dropped from the first floor of N block, CIIT Lahore.



Workshops & Seminars

Meet The Women Series Seminar

On the 18th of May, 2015, staying true to its ideology to inspire women to excel, IEEE-WIE CIIT Lahore initiated a series called "MEET THE WOMAN" during which they planned to invite inspirational, successful women from all fields of life to share their success stories with the student body. The purpose of this series was to acquaint students at CIIT Lahore with women of spirit who continue to serve as a living proof that gender alone is not the factor that determines the mettle of a person; that only hard work and perseverance are the key elements to succeed.

The idea for the event was to fruition when an extremely learned lady, Ms. Rameeza Moin of "Transparent Hands" graciously accepted the invitation to serve as the a guest speaker for it. Thus the first episode of the series was launched as Meet the Woman-Ms. Rameeza Moin, was held on the 18th of May, 2015, in the seminar room, A block, of CIIT, Lahore . Ms. Rameeza has acquired her M-Phil Degree in Applied Linguistics from Karachi University.



Workshop On Interview Strategies

EEE-WIE CIIT Lahore arranged a Workshop on Interview Strategies and Reducing Sexism in the Workplace called "Careershop" The workshop was open for all students-male and female, and targeted a mixed audience to erase the hardcoded societal codes that gave rise to inequality amongst the genders. The workshop took place on 18th May, 2015 at the seminar room, A block, in CIIT Lahore, between 11am-1:00pm. Ms. Memona Idris was the guest speaker.



Workshop On Women Empowerment And Leadership

The Workshop was aimed to help talented women to explore their hidden potentials by developing confidence and leadership acumen and equipping them with skills to navigate the complex leadership balancing both career and personal aspirations. Step Ahead... Make A Difference. The basic purpose of this workshop in collaboration with Duze University , Turkey, was to improve female representation at academicians at leadership positions and to provide them enough support and resources to be at decision making position in early part of their carriers. President and vice president of Duze university also graced the occasion.



Seminar On Application Of Higher Order Sliding Mode

A talk was delivered by Dr. Amer Iqbal Bhatti, Professor, MAJU, Islamabad on the latest research avenues “Applications of higher order sliding mode on problems of national concern like energy crisis” and “A model of Thar Coal gasification” on Friday, November 28, 2014. The main emphasis was on the Thar Coal gasification project. The discussion also covered problems of national concern like energy crisis.



Workshop On Robotics

IEEE organized a workshop on robotics on 14th May, 15. Mr. Ameer Hamza, Lecturer, from EE department CIIT Lahore was the speaker. Learning the basics of robotics and the applications Arduino along the way to seeing a live demonstration of robot put into effect.



Other Seminars

- A Seminar was conducted on “Next Generation Wireless Cellular Technologies (4G, LTE and LTE-Advanced)” by Dr. Atif Hameed on Wednesday, October 01, 2014 .
- EE department conducted a Continuing Professional Development (CPD) activity , on LATEX on Friday 31st October, 2014.
- Short talks were delivered on “Role of Automation in Power/Energy Systems” on Thursday, November 06, 2014.
- A training session on microcontroller and a brief discussion about ST products was held by IEEE with collaboration with ST Microelectronics on Tuesday, 2nd December, 2014.
- A lecture was delivered by Dr. Ali Hammad Akbar, Assistant Professor, KICS, UET Lahore on “**Emerging and Practicable Research Directions in LTE (4 and Beyond)**” on Wednesday, December 03, 2014.

AWARDS & ACHIEVEMENTS



International Achievement

CIIT Lahore Electrical Engineering students shone bright, and won the Graphical System Design Musabaqa 2015 Student Design Competition, held in Beirut Lebanon on May 15th, 2015. The team of 5 Undergraduate students from the Electrical Engineering Department of Lahore campus, Pakistan won the first prize in this rigorous and highly competitive project competition. This competition was held under the patronage of National Instruments, technology company who are the technology leaders in platforms for Industry, Academia and Research. National Instrument's annual academic day held in Beirut, Lebanon holds a student design competition named GSD MUSABAKA.



IEEE Best Student Branch Award

Annual General Meeting (AGM) of CIIT Lahore Section for CIIT IEEE student branch was held on 31st January 2015. In the meeting IEEE Student Branch received best branch award for 2014. Head of Department Dr. Sobia received the award.



EE Department Students Achievement

Inter departmental table tennis, chess, football, hockey, tug of war, badminton, cricket and baseball matches were organized in sports week. Faculty and students fully participated in the event. 100 meters, 80 meters race were also organized. EE department students played cricket match against faculty and won the trophy.



Research Collaboration By Dr. Mirza Tariq Hamayun



- 1) Research Paper of Dr. Mirza Tariq Hamayun, Assistant Professor, EE, entitled "***Real-time implementation of an Integral Sliding Mode Fault Tolerant Control scheme for LPV plants***" accepted for publication in a very prestigious journal IEEE Transactions on Industrial Electronics Impact Factor 6.5.
- 2) Another Research Paper of Dr. Mirza Tariq Hamayun, Assistant Professor, EE, entitled "***An Augmentation Scheme for Fault Tolerant Control using Integral Sliding Modes***" is published in a very prestigious journal IEEE Transactions on Industrial Electronics Impact Factor 2.521.

Research Collaboration By Dr. Khurram Ali

A journal article of Dr. Khurram Ali, Assistant Professor, EE, entitled "***A Run-Time Method Based on Observable Data for the Quality Assessment of GNSS Positioning***" has been accepted for publication in the IEEE Journal on Selected Areas in Communications - 2014 Special Issue on Location-Awareness for Radios and Networks with the impact factor 4.138.

Research Collaboration By Dr. Hafiz Asif



A research paper of FYP supervisor Dr. Hafiz Muhammad Asif, Assistant Professor EE Dept, entitled, "***Prototype Design of White LED Data Communication System and Optical Channel Modeling***" has been selected for gold medal and cash prize award in 30th IEEE, Multi-topic International Symposium.

- 1) H. Alwi, C. Edwards, O. Stroosma, J.A. Mulder, Hamayun M.T, " Real-time implementation of an Integral Sliding Mode Fault Tolerant Control scheme for LPV plants " IEEE Transactions on Industrial Electronics , Vol 62, No 6. June 2015 Impact Factor: 6.5
- 2) Syed Safdar Raza, Masood Ahmad, M. Shoaib Pervez , "Performance of energy meters under Harmonic Generating environment " , Engineering and Applied Sciences, Science International Lahore. Pp: 2063-2069, Vol:26, Issue: 5, ISI.
- 3) M.T. Hamayun, C. Edwards, H. Alwi and A. Bajodah, "A Fault Tolerant Direct Control Allocation Scheme with Integral Sliding Modes " , International Journal of Applied Mathematics and Computer Science . Pp: 93-102, Vol:25, Issue: 1, Impact Factor : 1.4.
- 4) Hafiz M Asif, Bahram Honary and M T Hamayun, "Gaussian integers and interleaved rank codes for space time block codes " , International Journal of Communication Systems., Impact Factor: 1.106. Accepted
- 5) ARSLA KHAN, SOBIA BAIG, TABASSUM NAWAZ (2015), "DWMT transceiver equalization using overlap FDE for downlink ADS", in Turkish Journal of Electrical Engineering & Computer Sciences, pp: 681-697, Vol: 23, Issue: 3, Standard: 1300-0632, Impact Factor: 0.644
- 6) Hamza Mahmood, Saleem Akhtar, Ejaz A. Ansari and Ali N. Khan (2015), "CONTROLLING THE EFFECTS OF LINK ADAPTATION ERRORS AND USERS SPEEDS ON SCHEDULING SCHEMES IN HSDPA SYSTEMS", Engineering and Applied Sciences, Multidisciplinary Journal, Science International, Lahore, pp: 127-132, Vol: 27, Issue: 1, Standard: 1013-5316
- 7) Muhammad Farrukh, Tariq Jameel and Syed Naveed Jaffri, "The multiband antenna designing based on SDR for Satellite Communication", INMIC2014 at Bahria University Karachi., Decemeber 2014
- 8) Muhammad Farrukh, Tariq Jameel and Syed Naveed Jaffri, " Performance evaluation of 3D OFDM transceiver for Satellite Communication " , IMTIC2015 at UET Mehran Jamshoro, Feb 2015
- 9) M.T. Hamayun, C. Edwards, H. Alwi (2014), "An Augmentation Scheme for Fault Tolerant Control using Integral Sliding Modes", IEEE Transactions on Control System Technology, pp: 307-313, Vol: 22, Issue: 1, Standard: 1063-6536, Impact Factor: 2.521
- 10) C. Edwards, H. Alwi and M.T. Hamayun (2014) "Fault Tolerant Control Using Integral Sliding Modes", in 13th European Control Conference (ECC), pp: 2291- 2296
- 11) H. Alwi, M.T. Hamayun and C. Edwards (2014) "An Integral Sliding Mode Fault Tolerant Control Scheme for an Octorotor Using Fixed Control Allocation " , in 13th International IEEE Workshop on Variable Structure Systems, pp: 1-6
- 12) Tabassum Nawaz Bajwa, Arsla Khan, Sobia Baig, "Coded Wavelet OFDM based Communication System for Rayleigh Fading Channel" Science International, Lahore, pp: 1041-1047, Vol: 27, Issue:2 Standard: 1013-5316, 2015, ISI-indexed

Faculty

New Faculty Joining

1) Athar Hanif

Assistant Professor

Qualification

PhD. (Electronics Engineering) Contd...
MAJU

MS (Electrical Engineering)
UET, Lahore

BS (Electrical Engineering) UET, Taxila

2) Hafiz Kashif Iqbal

Lecturer

Qualification

MS (Electronics & Communication), University of Lahore

BS (Electrical Engineering)

Islamia University of Bahawalpur, Pakistan

4) Arsalan Khalid

Lab Engineer

Qualification

BS (Telecom Engineering)

CIIT Lahore, Pakistan

4) Hassan Aslam

Lab Engineer

Qualification

BS (Telecom Engineering)

CIIT Lahore, Pakistan

5) Sara Sajid

Lab Engineer

Qualification

BS (Electrical Engineering)

UET Lahore, Pakistan

6) Ayesha Naz

Lab Engineer

Qualification

BS (Electrical Engineering)

UET Lahore, Pakistan

7) Mayyda Mukhtar

Lab Engineer

Qualification

BS (Telecom Engineering)

CIIT Lahore, Pakistan

8) Irfan Ali

Lab Engineer

Qualification

BS (Computer Engineering)

CIIT Lahore, Pakistan

Faculty on Ex-Pakistan Study Leave

- Mr. Saqib Salahuddin
- Mr. Khawar Shehzad
- Ms. Arsla Khan
- Mr. Farhan Pervez
- Mr. Farooq-i-Azam

E.E. Newsletter

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October 2014 - June 2015



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