



Vision of ECE Department

To produce skilled, socially –sensitized and globally competitive professional engineering graduates in the area of Electronics and Communication Engineering.

Mission of ECE Department

1. To provide quality and contemporary education through innovative teaching-learning process and effective resource utilization.
2. To develop responsive and socially sensitive engineer through research oriented practices.
3. To promote industrial collaboration for providing practical exposure leading to industry ready engineering graduates.
4. To open new vistas of learning for students through international collaborations.
5. To provide conducive environment through pre placement training and professional development activities for providing ample opportunities of placements, higher studies and entrepreneurship.

SKILL DEVELOPMENT OF LABORATORY STAFF

To enhance the skills of laboratory staff



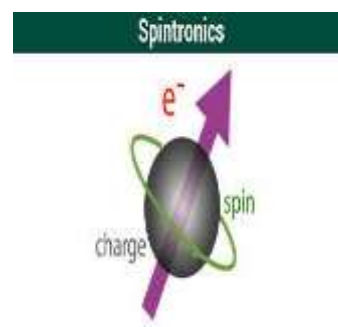
members a 5day workshop was organized by

considering project designing issues, circuit simulation using multisim software, operating system and PC hardware, basics of Networking, DSP concepts for practical work etc. This event was organized by the ECE Department from 30.8.16 to 3.9.16..

RECENT TRENDS

Spintronics

Spintronics, a portmanteau word



meaning “spin transport electronics”, is the use of a fundamental property of particles known as “electron spin” for

information processing. Electron spin can be detected as a magnetic field with one of two orientations: up and down. This provides an additional two binary states to the conventional low and high logic values, which are represented by simple currents. Carrying information in both the charge and spin of an electron potentially offers devices with a greater diversity of functionality. So far, spintronic technology has been tested in information-storage devices, such as hard drives and spin-based transistors. Spintronics technology also shows promise for digital electronics in general. The



ability to manipulate four, rather than only two, defined logic states may result in greater information-processing power, higher data transfer speed, and higher information-storage capacity. It is expected that spin transport electronic devices will be smaller, more versatile and more robust compared with their silicon counterparts. So far this technology is in the early development stage and, irrespective of intense research, we have to wait a couple of years to see the first commercial spin-based electronic chip.

"THE KEY TO SUCCESS IS TO FOCUS ON GOALS, NOT OBSTACLES"

EXPERT LECTURE BY (DR.) SAVITA

An expert lecture by Dr. Savita Gupta who is the HOD & Professor CSE in UIET, PU,



on the topic Signal/ Image Processing at Seminar Hall, Pharmacy Block. The lecture was attended by 6th Semester ECE (CD, EF & GH Section) attended the lecture along with Many Faculty Members (like Dr. Ruchi Singla (HOD), Dr. Dinesh, Dr. Paras, Dr. Harpal, Ms. Sukhdeep, Ms. Parminder, Mr. Gaurav Garg, Mr. Rakesh Gandhi, Ms. Sakshi Sharma) were present during the seminar. She started with Basics concepts of signal /System, Difference between Bit Rate Baud Rate, Various Modulation Techniques and its use then applications of signal and System was discussed. The Image Compression & Bandwidth Issues as these days bandwidth is limited and the only effective way of using limited bandwidth via compression technology was discussed. Then, Application of DSP where it can be used and implemented was told, then the Types of image Compressions techniques, images & why we need to use the Green Computing concepts and how they are environment friendly. At last Image transformation & its technology, the types of redundancy in Data can be eliminated using techniques. How and when to convolute the data & its advantages. Further, Biometrics sensing & remote sensors applications etc was discussed in detail.



ELECTRIC FLASH

VOL 1 ISSUE 3 - AUGUST -OCTOBER 2016

INDUSTRIAL VISIT TO



SIEMENS

An Industrial Visit was organized for B.Tech 5th



semester students at Siemens, Panchkula. Siemens is a company engaged in providing reliable quality and competitively priced Electronic, Electrical and Scientific Instruments. Its main product range comprises highly user friendly training systems, Automatic Control systems, Programmable logic control systems for Institutions, Industry and Research. The students visited the manufacturing Department. The Industrial visit was one of day. The event was organized by ECE Department. Industrial visit was attended by Mr. Manish Kumar , Mrs. Nidhi chahal and B.Tech 5th semester students.

TATVA 2K16

Tatva 2k16 the annual cultural fest of ECE department , CEC , Mohali was witnessed on september 9th 2016 with the audience all engaged !There are lot of events war covered like Singing, Western (Silent), Play, Modelling, Wow Act, Malvai Gidha, Western (Fusion Forms) and Bhangra. Tatva is held every year in the odd semester . Tatva is very well known to attract the best student talent from the department. Tatva has taken things to next level year after year with competitions in formal, technical and informal events with a quirky twist. It actually develops various qualities among the students as in stairway to humanity , let's one push ourselves to the next level , formulation of out of the box ideas , let one discover oneself, the experience and exposure , express and impress . The other thing about this is its dazzling set up, memories and reminiscence; it paves the ways for new friendship. Tatva in the past has not only touched but has also surpassed past benchmarks and created new milestones for the years to come.

PATENT Filed:

- “INTELLIGENT ALCOHOL DETECTION SYSTEM AND A METHOD THEREOF FOR AUTOMOTIVE VEHICLES”.
- “IMPROVED ELECTRONIC ANESTHESIA DELIVERY DEVICE”.
- “COMB BOX”.
- “REGENERATIVE BRAKING SYSTEM FOR BICYCLE”.

Research Publications

- “A review on Image interpolation systems:Image Reconstruction techniques” **under** International Conference On JULY 2016.
- “A review on Image interpolation systems:Image Reconstruction techniques”



under International Conference On JULY 2016.

- “A Review paper on second generation current conveyors” **under** JCT International conference On SEPTEMBER 2016.
- “Analysis of Energy Detection and Cyclo stationary Feature Detection **under** Fading Channels in CRNs” **under** Conference,, ICCCS-2016,Taylor& Francis (scopus indexed) On SEPTEMBER 2016.
- “An effective and empirical review on internet of things and real time applications” **under** Conference,, IC4S-2016,Book Series on “Advances in Intelligent Systems and Computing” on AUGUST 2016.
- “Age Estimation Using Artificial Intelligence Techniques: a closure looks” **under** STM JOURNAL on AUGUST 2016.
- “A Review on Base Transceiver Station and Swarm Intelligent Techniques” **under the International** Journal of Innovations in Engineering and Technology (IJIET) in OCTOBER 2016.
- “Analysis of Energy Detection and Cyclo stationary Feature Detection under Fading Channels in CRNs” **under** Conference,, ICCCS-2016,Taylor& Francis (scopus indexed) on SEPTEMBER 2016.
- “Novel Human Age Estimation system Based on DCT Features and Locality-Ordinal Information” **under** IEEE Conference,ICICT 2016 On AUGUST 2016.
- “An effective and empirical review on internet of things and real time applications” **under** conference IC4S-2016 on AUGUST 2016.
- “A Review on Base Transceiver Station and Swarm Intelligent Techniques” **under the International** Journal of Innovations in Engineering and Technology (IJIET) in OCTOBER 2016.
- “Age Estimation Using Artificial Intelligence Techniques: a closure looks” **under** STM Journal On AUGUST 2016.
- “Review on Signature Recognition using Neural Network, SVM,Classifier Combination of HOG and LBP features”**under**

- International Journal of Science Technology & Engineering(IJSTE) On JULY 2016.
- “Spectrum Sensing based on Multiple Energy Detector for Cognitive Radio Systems **under** Noise Uncertainty” under CONFERENCE(IEEE) ICPEICES 2016 on JULY 2016.
- “Speckle Reducing Filtering for Ultrasound images” **under the International** Journal of Engineering Trends and Technology (IJETT) on JULY 2016.
- “PSO-Based NBI Resistant Asynchronous MC-CDMA Multiuser Detector” **under** I.J. Intelligent Systems and Applications on AUGUST 2016.

Projects Under IEDC

Students have developed following projects under IEDC along with their mentors:

- Arya, AryamaaRaaz, Anshu Malik, Nitya Dang the following students of CGC took part in the project called “Raw milk Purifier” with their mentor Dr.Mohit Srivastava, Dr.ArchnaGupta for the skill development of mechanical & electronics designing to study about milk purification.
- Chetan Chadha participated in the project of “Smart Safety System” with their mentor Dr. Paras Chawla for use of microcontrollers.
- Vishal Gupta, Nitin Sharma, Shikha Chawla are the participants of Electro tiles named project with their mentor Mr.Surinder Singh, Dr.Ruchi Singla for skill development of Piezoelectric transducer to study about the electricity generation.

Guest Lecture Delivered

Dr. Mohit Srivastava, (Professor & Dean R&D) delivered Guest Lecture on “**Processing of**



High Resolution Remote sensing data (An OBIA Approach)” on 14 July 2016 at SASE (DRDO), Chandigarh for scientist in DRDO-CEP course during 11-15 July 2016.

Conference Session Chair

Dr. Mohit Srivastava, (Professor & Dean R&D) Chaired a Session of TEQIP sponsored International Conference on “Advances in Information Communication Technology & Computing” published under ACM Chapter, during 12-13 August, 2016, Govt Engineering College, Bikaner.

MESSAGE BY EDITOR

Dear Reader It is indeed a pleasure to introduce to you the 3rd Issue of the Chandigarh Engineering College ECE-Newsletter in a new online format, which we hope you will enjoy.

Our Editorial Committee decided that a completely web-based publication, moreover environment-friendly, would make the newsletter quickly available to the world at

large, either for consultation or future reference.



Please feel free to provide your feedback and send pertinent information with photos for inclusion in our forthcoming issues.

Chief Editor: Ms. Chanpreet kaur
Editor: Ms. Anjana Sharma
Student Editor : Chetan, Rubal