



# Dronacharya College of Engineering

## ISSUE

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## Electronics & Communication Engineering

### In This Issue....

- ✚ Editor's Desk
- ✚ HOD's Desk
- ✚ Projects
- ✚ Achievements
- ✚ Conferences/Seminars/Workshops outside campus
- ✚ Conferences/Seminars/Workshops at campus
- ✚ Industrial Visit
- ✚ Webinars
- ✚ Sport - Meet 2013
- ✚ Student's Viewpoint

### From Editor's Desk :

Education enables us to face new challenges, achieve progress and lead a successful life. We, therefore, at **Dronacharya College of Engineering, Gurgaon** encourage the students to thrive for the best making themselves knowledgeable in their relevant branches of engineering with high self esteem and discipline.

High academic excellence coupled with moral rectitude, intellectual integrity, discipline, sound aesthetic sense etc, is the essence of **DCE, Gurgaon**. By following numerous effective approaches of pedagogy, we enable the students to utilize their potential.



Editor, (Dr. Sunil K. Mishra)

### From HOD's Desk :

The department of Electronics & Communication Engineering is striving hard for the improvement of university results and placement graph of the students. The team of highly dedicated faculty and staff with excellent infrastructure facilities provides the right environment and guidance to the students to excel in the academics as well as other co-curricular activities. We don't leave any stone unturned to provide an edge to our students so as to compete successfully in the professional world.

The Guest lectures, workshops, seminars industrial visits are being conducted regularly to improve their knowledge as well as personality. Virtual labs are being established in collaboration with IIT Delhi with an objective to give the students a practical exposure using the internet.



Head of Department, Prof. (Dr.) H. S. Dua

### Projects :

#### WOMEN SECURITY SYSTEM:

**Team members:** **Mohit Sharma** (Roll No. 13190), **Manish Saini** (Roll No. 13184) and **Kulshrestha Yadav** (Roll No. 13180)

**Guide:** **Prof. (Mrs.) A. N. Mahajan**

**Objective:** This project aims at making a handy device that can be worn by women for the purpose of their security as a trendy bracelet or band. It uses the principle of GPS and mobile number retrieval of the victim, attacker and witnesses available at the location (if any).

**Woman Security Bracelet** (WSB) helps to secure women, catch the culprit, collect evidence and witnesses.

#### 3 - E TRANSFORMER:

**Team members:** **Mohit Sharma** (Roll No. 13190), **Manish Saini** (Roll No. 13184) and **Kulshrestha Yadav** (Roll No. 13180)

**Guide:** **Prof. (Mrs.) A. N. Mahajan**

**Objective:** The objective of this project is to minimize the losses to the maximum extent and to improve the efficiency of the system. Most of the losses in the transformer are dissipated in the atmosphere in the form of heat thus reducing the efficiency of the transformer. This project entraps the heat losses with the help of a mixture of five nitrate salts commonly known as coastal or **hitec** salt.

### Achievements :

The Projects **3E transformer** and **Women security Bracelet** have been registered for the patent respectively.

### Conferences/Seminars/Workshops at outside campus :

- ✦ **Mr. Sunil**, of ECE Deptt. has presented a paper on "Performance analysis of single point and multi-point restricted crossover schemes in the design of a Neuro-Genetic pattern classifier" in **1st International Conference on "Electronics, Communication and Information Technology"** at Thapar University Patiala on 4-5th Oct 2013.
- ✦ **Mrs. Monika Thakur**, of ECE Deptt. has published a paper on "**Implementation of a light saber using artificial intelligence**" in "**International Journal for Advance Research in Engineering and Technology (IJARET)**" ISSN:2320-6802 in Vol.I , issue 8, September 2013.
- ✦ **Ms. Deepti** of ECE Deptt. has presented a paper on "**Microstrip patch antenna with H-shaped DGS and improved Bandwidth**" in 1st International Conference on "**Electronics, Communication and Information Technology**" at Thapar University Patiala on **4th-5th October 2013**.
- ✦ **Prof. (Dr.) R. C. Sharma** from Applied Sciences & Humanities Department presented his research paper entitled "**Energy from the Ocean and scope of its utilization in India**" in a two-day International Conference on Agriculture, Food technologies and Environment- New Approaches (AFTENA-2013) organized by Krishi Sanskriti at Jawaharlal Nehru University, New Delhi from **19th - 20th October 13**.
- ✦ **Dr. Jindagi Kumari**, from Applied Sciences and Humanities Department presented her research paper entitled "No to the Trodden Path: Gender and Republic in Shakespeare's As You Like It" in the VI International Seminar on "**The Republic in Shakespeare**" organised by Shakespeare Association (India) in collaboration with Jammu University, Jammu from **16th -18th October 2013**.

### IUCEE-SPEED STUDENT WORKSHOP ON CREATIVITY AND INNOVATION IN ENGINEERING EDUCATION :

A two day workshop on "**Creativity and Innovation in Engineering Education**" was organized by **IUCEE at JRE School of Engineering, Greater Noida, on 29-30th, August 2013**. A group of 10 students from ECE Department attended the workshop. The eminent speakers expressed their views on how to think creative and innovate in real life and how to identify the issues and challenges in today's Engineering. Education, explaining the research issues, various teaching ethics and methods to improve students' knowledge.

### ISTE Workshop for Coordinators on Signals & Systems Under the National Mission on Education Through ICT (MHRD India) Conducted at IIT Kharagpur :

**Mrs. Dimple Saproo**, has been appointed as a Faculty Coordinator from ECE Deptt. **Dronacharya College of Engineering Gurgaon**. She has attended one week course work from **30th Sept 13 to 4th October 13** to handle **Signals and systems** subject and laboratory.

### TECHNORAAZZ-13 at Jaipur National University, Jaipur:

**Shalini Sharma** (14091) of V Sem CSE, **Anshul Patro** (14605), **Vineet Kataria** (14631) of V Sem Electronics and Computer Engineering department students presented their paper on the topic "**Gesture Controlled Web Browser**" during the **TECHNORAAZZ'13** in the event "**Vibes (Technical Paper Presentation)**".



**Shalini Sharma (14091) Anshul Patro (14605) receiving the Prize for securing 1<sup>st</sup> Rank in Paper Presentation**

## INK Live Talks:

**GOOGLE STUDENT CLUB** successfully arranged live telecast on ink live sessions on **25th Oct 13**. The Ink sessions were held at **Kochi** on **25th-27th October 2013**. INK is the meeting place for visionaries and change makers to inspire each other. Some of the best minds from different fields get together under one roof and present their ideas and thoughts. The aim is to result in ideation, follow-up discussions, and lead to new ventures.

## Participation in Essay Writing Competition-2013:

A Science essay writing competition for college students was organized by Haryana State Council for Science and Technology. Over 200 students participated in this competition. **Akash Kumar (Roll No. 16193) from Applied Science & Humanities Department, DCE Gurgaon qualified District level competition** and selected for **State level essay writing competition**. He wrote an essay on "**Natural Disasters: Their abetments and safety measures**".

## Workshop on SIRACN-2013:

**Prof. (Dr.) Vinay Kumar Nassa** from Department of Electronics and Communication Engineering attended three days National Workshop on "**Security issues in Research Area of Communication Network (SIRACN-2013)**" sponsored by University Grant Commission (UGC) at **Dr. A.P. J Abdul Kalam Hall** organized by **Bapu Rao Deshmukh College Of Engineering, Sevagram (Wardha)** from **25th-27th October 2013**. During the workshop, various topics including Communication Networks, Network Simulator (NS-2), Error control Coding etc were discussed by experts from various institutes.

## Grand Culmination Convention - "MANTHAN -2013" at New Delhi:

The Grand Finale of India's largest youth movement - "**MANTHAN**" was organized on **2nd October 2013** at Thyagraj Sports Complex, New Delhi. **Jyoti Hazrati**, MANTHAN Campus Ambassador felt proud to represent our college among dignitaries of our nation. Our team from I.T. Department of the college was selected among top 15 teams all over India. All the participants were provided the Certificates of Appreciation by CAG and the top team was awarded a cash prize of Rs. 5000.



**Grand Finale at "MANTHAN"**

## Conferences/Seminars/Workshops/Guest lectures at campus :

### Guest lecture on "How to Conduct Research & Development and Innovation" :

**Mr. V. K. Arya, DDG (Retd.)** from **DOT Ministry of Communication, Govt. of India**, delivered the lecture on **14th October 2013**. During his talk he emphasized on the importance of time management to avoid unproductive work at workplace and how to conduct research and innovations through some examples. He briefly discussed the various steps involved in undertaking research activity.

### Workshop on Virtual Lab:

Department of Electronics and Communication Engineering organized a demonstration on "**Virtual Labs**" (An Initiative of Ministry of Human Resource Development (MHRD) under the National mission on Education through ICT (Information and Communication Technology) by Indian Institute of Technology (IIT), Delhi on **1st October 2013** at the College auditorium. 25 faculty members & 150 students of various departments attended the workshop. **Mr. Harsh Sodhi** and **Mr. B.C. Patra** from **IIT Delhi** demonstrated the experiments of ECE and CSE labs respectively.

## Workshop on Optical Fiber Network :

Department of Electronics and Communication Engineering organized a one day workshop on "**OPTICAL FIBER NETWORK**" on **15th October 2013**. Final year students from ECE department of our college participated in the workshop. The goal of this Workshop was to get started with **Optiwave** software programming. The Gigasoft Group provides software solutions for simulating fiber networks. The guest faculty included an expert from DAV Institute of Technology, Jalandhar.

## Workshop on MATDIP (Matlab & Digital Image Processing) :

A two-day workshop on "**MATLAB & Digital Image Processing**" was organized by the Deptt. of Electronics & Communication Engineering on **21st-22nd October 2013** in association with **KC Robotics & Embedded Pvt. Ltd. Noida**. 104 students attended the workshop. The objective of this workshop was to have discussion on basics of MATLAB and its use in the digital image processing and Communication Engineering.



**Mr. Kapil Kumar Garg delivering Lecture during the workshop**

## Guest Lecture on "Innovation in Projects" :

A guest lecture on "**Innovation in Projects**" was organized by **Entrepreneurship Development Cell (EDC) of the college** on **30th September 2013** wherein **Mr. Sujit Banerjee, Director, Department of Science and Technology (DST)**, **Mr. Sanjay Vohra, IEDC head and Placement Officer at Acharya NarendraDev College of University of Delhi** shared their views and importance on working as an entrepreneur by transforming an innovative idea into a practical reality. A presentation on IEDC projects was given by 5 different groups of our college students from various departments.

## Guest Lecture on "Fuzzy Logic and MATALAB":

**Mrs. Prerna Gaur**, Assistant Professor in NSIT Dwarka, New Delhi delivered a guest talk on "**Fuzzy Logic & MATALAB**" to the ECE students on **23rd October 2013** during a two day workshop TECHNOBUZZ-13. The lecture was very educative for the students.

## Workshop on "Paper Recycling"

**Paryavaran Club of Dronacharya College of Engineering, Gurgaon** organized a **one-day workshop on "Paper Recycling"** on **17th October 2013** in association with **Greenobin Recycling Pvt. Ltd, Gurgaon**. The objective of this workshop was to spread the awareness of recycling among the students.



**A group photo of the Student Coordinators along with members of Paryavaran Club**

## Seminar on “Cyber Forensics”:

The department of **Electronics & Computer Science Engineering** organized a Seminar on “**CYBER FORENSICS**” on **15th October 13** in association with Lucideus Tech. **Mr. Rahul Tyagi**, the guest speaker made the students aware of cyber security in the modern era by illustrating a few good instances of cyber crime cases that came across recently.



**Guest Speaker Mr. Rahul Tyagi talking on “Cyber Forensics”.**

## Seminar on “Personality Developmnet” :

A **personality development** program was organized in the college campus by Electronics and Computer Science Engineering department in association with ISTE Student Chapter and TRIDINDIA on **15th October 2013**. The session was aimed at enhancing the overall personality of students, and gears them to successfully undertake and execute the challenges of personal and professional life.



**Guest Speaker, Mr. Vikrant giving lecture on how to develop Impressive Personality**

## IEEE Student’s Branch Acticity:

The IEEE students branch was inaugurated by **Mrs. Prerna Gaur**, secretary IEEE Delhi region. She highlighted the activities that can be undertaken by the students branch. **Mr. M.N. Hooda** Director BVICAM graced the occasion as chief guest on the valedictory function. DCE IEEE student chapter also organized an event “**TechnoBuzz- 13**” on **23th- 24th Oct 13**. **Project competition, Poster presentation, Paper Presentation** and **Technical Quiz** were the main highlights of the event. **Mr. Hooda** gave away the prizes to the winners and runner ups and also addressed the students. His address was highly motivational and inspiring.



**Dr. Prerna Gaur delivering Lecture on “Fuzzy Logic”**



**Judgement of Projects by Dr. Prerna Gaur**

### Paper Poster Presentation'13 :

An event namely "Paper Poster Presentation" was organized by Computer Science Engineering Department of our College on **30th October 2013**. In this, more than 90 teams participated from various departments. The main motive for organizing this event was to encourage students for the research work. The top three teams were awarded cash prizes of Rs.3000, Rs.2000 and Rs. 1,000 respectively.



**Various posters on display**

### Guest Lecture on "National Youth Idea Challenge" :

On **8th October 2013**, **Computer Science Engineering Department of Dronacharya College of Engineering, Gurgaon** organized a Guest Lecture on "**National Youth Idea Challenge**" by **Mr. Patankar Pramod, of Indian School for Entrepreneur and Enterprise Development (ISEED)**.

### Mirchi Fresher's 2013 :

A one day Fresher's hunt program called Mirchi Fresher's was organized by Radio Mirchi on **10th October 2013** in **Dronacharya College of Engineering, Gurgaon**. The fresher's went through various rounds before they were crowned as Mr. & Ms. Fresher of the college.

### Photography Contest:

**GOOGLE STUDENT CLUB** which is being run by the CSE Department and being conducted by **Google student Ambassador (Shalini Sharma)** and **Google Student Partner (Gunjan Chhillar)** has successfully conducted a photography contest on **18th October 2013** in collaboration with Incredible India (ministry of tourism).

### Videography and Mobile Application Event :

One day event namely Videography and Mobile Application Talent Hunt was organized by Department of Computer Science & Engineering on **23rd October 2013**. The purpose behind this event was to bring the hidden talents of the students by making a video on the social cause and to make others aware about the same. In this event students presented motivational videos on social causes like female feticide, corruption, poverty and illiteracy etc. The event "Videography and Mobile App Talent Hunt" was sponsored by **NIIT, Novafirst.com, Collegekhabar.com, and Firsttpa.com**. The top three teams were given a cash prize of Rs.3000, Rs. 2000 and Rs. 1000 respectively.



**Various judges from different deptt.**



**Students presenting the videos**

## Workshop on Virtual Lab Demonstration on Mechanical Vibration Labs :

A **Virtual Lab Demonstration on "Mechanical Vibration Labs"** was conducted by **Department of Mechanical Engineering, DCE, Gurgaon, on 22nd October 2013** in **"Computer Aided Design Lab"**. Online and off-line experiments were performed on Mechanical Vibration Labs. 101 students in 4 groups were trained.



**Hon'ble Principal Dr. M. N. Hussain inaugurating the Virtual Lab**

## Seminar on "Aerospace Design and Analysis" :

A seminar, **Aerospace Design and Analysis**, was organized on the **22nd October 2013** by **Dronacharya Group of Institutions, Greater Noida**. 46 students of Mechanical Engineering branch along with two faculty members of DCE Gurgaon attended the seminar.



**Participants of the seminar**

The seminar was conducted by **ELANAUSY TECHNOLOGIES, Automotive Systems, Gurgaon** (an Aerospace Company). The main speaker, **Mr. Janonne Backhaus**, Director- offshore, **FRANCE**, talked on analysis of frames with stringers of the fuselage panel section and formation of dents on the skin of the aircraft by **FEA** solver **NASTRAN/PATRAN**. The talk was very educative for the students.

## Workshop on "Scrapheap Challenge" :

A competitive workshop on **SCRAPHEAP CHALLENGE** was organised by Department of Mechanical Engineering, **Dronacharya College of Engineering**, on **23rd Oct 13**. 42 teams, having 4 members each, participated in the workshop. Participants made some innovative working models like Water rocket, Windmill, Ship cum aircraft, Suspension System, Hydroelectric Generators etc. The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> position winners were honoured with cash prizes of Rs.5000/-, Rs.3000/- and Rs.2000/- respectively.



**Participants during the workshop**

## CSI State Students Convention (Haryana):

**Dronacharya College of Engineering, Gurgaon** organized **CSI State Students Convention (Haryana)** on **26th and 27th September 2013**. **Prof. R. K Vyas**, Regional Vice President, Computer Society of India and **Prof. (Dr.) M. N Hoda**, Regional Student Coordinator, Computer Society of India, graced the occasion as the **Chief Guest** and inaugurated the Convention.

## Industrial Visits:

- 44 students of VII semester of ECE Department visited No. 7 BRD at AFS Tughlakabad, on **17th Oct. 13** accompanied by two faculty members **Mrs. Dimple Sapru** and **Mr. Surinder Dhaka**. During the visit they had exposure of individual major assemblies of radar like High Power Magnetron, Reflex Klystrons, different parts of antenna assembly, antenna drive and gear systems, power supply equipment, combat vehicles and launching pad etc.
- 30 students each from ECE, CSE & IT Deptt accompanied by 3 faculty members, visited **Huawei Telecom** at Manesar on **28th and 29th Oct 13**. This gave a good exposure to our students on Communication Technology and Networking.

## Visit to “Department of Renewable Energy”:

The Students of Computer Science Department from 5<sup>th</sup> semester (CSE) along with **Mrs. Chitra Kaul** and **Mr. Chain Singh** visited “**The Department of Renewable Energy**” located in Sector 29 Gurgaon on **25th Sep 13**. The aim of this visit was to promote awareness amongst the students to share responsibilities for formulating policies and programme necessary for popularizing the applications of various non -conventional and renewable sources of energy in the State.

## Webinars :

Faculty members of ECE Deptt. have been attending webinars to upgrade their knowledge in the respective field. These webinars are conducted by NI (National Instruments) and IUCEE (Indo-US collaboration for Engineering Education) and IEEE. Some of the webinars attended are listed below:

### Transformation in Engineering Education Series Webinar”:

This webinar was conducted by IUCEE. The main agenda of the webinar was publishing the papers on Education and Research in Engineering field.

### Democratization of Embedded System Design:

The webinar was conducted by IEEE on **17th October 2013**. The webinar was focused on democratization in embedded system design. Many leading design teams are recognizing the importance of moving domain experts to the forefront of the design process and abandoning larger specialized groups.

## Sport-Meet 2013 :

We at **Dronacharya College of Engineering, Gurgaon** encourage extra - curricular activities that enrich cultural, physical and social life of students. The Sports Committee of the College actively organized the sports meet on **24th-26th October 2013** wherein students got an opportunity to show their talents. Students participated in various sports activities. Eight teams from different departments participated in sports competition. **Dr. Satish Yadav, Hon'ble Chairman Dronacharya Group of Institutions** was the chief guest on the final day of the meet. He distributed the trophies and prizes to the award winners, addressed the students, congratulated the winners and advised them to always play in a sportsman spirit.



**Hon'ble Chairman Dr. Satish Yadav  
addressing the students**



**Students receiving prizes from  
Hon'ble Chairman Sir**

### **Student's Viewpoint about the Department :**

**Dronacharya College of engineering** is a platform for excellence in teaching, learning & career building. Here, we find the unique combination of quality, excellence and innovation. The faculty of the college is very intellectual. I really feel so proud to be a part of this prestigious institute who is one among the top ranked colleges in state. The campus of the college provides opportunities for developing extracurricular skills which include NSS, student chapter of IEEE, IETE, social clubs and sports & games. The faculty of the college is so experienced which makes the college academically very strong. This college is the best place for the technical education. The four years stay at the college transforms the life of students through the integration of teaching, research and character building.



**Kajal, Vth Sem  
(Roll No. 14186)**

**Dronacharya College of Engineering, Gurgaon** is a place where I have got an edge for my future. It is an institution which not only takes care of the studies but also focuses on the personality development. Our college is famous for the maintenance of discipline as well.



**Kanchan Gupta, Vth Sem  
(Roll No. 14187)**

I am studying in Electronics and Communication Engineering branch and our H.O.D **Prof. (Dr.) H. S. Dua** along with other faculty members guide us on every step of our journey. I am totally inspired by our visionary and dynamic Principal **Prof. Dr. M. N Hussain**, who himself is a role model of sincerity and truth.



**Nikhil, IIIrd Sem  
(Roll No. 15196)**