



Dronacharya College of Engineering

ISSUE

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ELECTRONICS AND COMMUNICATION ENGINEERING

In This Issue....

- ✦ Editor's Desk
- ✦ HOD'S Desk
- ✦ Events
- ✦ Technical Workshop/Conference
- ✦ Live Projects Undertaken By Students
- ✦ Student's Viewpoint

From Editor's Desk :

Education unfolds an individual to his higher self, cultivates him into a good human being with basic values that nurture the society and the nation.

Dronacharya College of Engineering takes education as the process of molding young minds into creative geniuses, who later go ahead to shape the future of the world. We understand that the students learn in a variety of ways that each student may struggle in certain areas and excel in others. Here, all students are provided opportunities to achieve success, develop Problem-Solving Skills and to become confident taking on leadership responsibilities.

We always strive to develop students as caring and compassionate members of society who will be positive leaders in the community and lifelong learners.

To meet the global challenges of 21st century, we are always motivated by a futurist, no less than a legend in the field of education, **Dr. Satish Yadav, Hon'ble Chairman, Dronacharya Group of Institutions**, a man who believes in simple living and high thinking, one who staunchly adheres to principles that become instruments of change, diversity, innovation and success. He intends Dronacharyans to inherit its completeness and realizes his dream through alumni who are well settled across the globe.

The one day mega reunion came to a close with a reaffirmation of the clichéd saying: **'You can take a Dronacharyan out of Dronacharya, but you can't take Dronacharya out of Dronacharyans!'**



Editor, (Dr. Sunil K. Mishra)

From HOD's Desk :

I feel honoured to present this Issue of College Newsletter. The college has a very hectic schedule as the University examination is in progress. All Faculty Members are preparing their best for the Even Semester commencing from 01st February, 2010.



In the last quarter the college touched another milestone wherein a Memorandum of Understanding was signed with **IBM** and also "**IBM Centre of Excellence**" was commissioned in the College.

Under this MoU, IBM software engineers will impart training to our students which will help to improve their Placement prospects when they pass out from this college. Various labs in the department are being upgraded and additional experiments in each lab are being designed so that students get better practical exposure.

In order to achieve academic excellence, six faculty members **Mr. Vinay Nassa, Mrs. Sakshi Pahuja, Mrs. Shampy Bhandari, Mrs. Dimple Sapru, Mr. P. Patanaik and Ms. Gulnar** from the Department attended seminars on Technical Topics like Satellite Communication and its Application, MATLAB and Simulink, Computer Architecture at other Institutions in the last quarter.

The students of ECE department are involved in making a Robotics related project with the assistance of a private enterprise "**Building Blocks**", Gurgaon. They are getting a lot of confidence and are able to enhance their knowledge in the field of Robotics.

Department of ECE will continue to strive towards producing smart and efficient engineers under the vision and worthy guidance of **Dr. Satish Yadav, Hon'ble Chairman, Prof. (Dr.) B. M. K. Prasad, Principal and Prof. (Dr.) Onkar Singh, Dean Academics of Dronacharya College of Engineering.**

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

Major Events in the Last Quarter :

- "**IBM Software Centre of Excellence**" was inaugurated in the College on 18 December 2009 wherein the MoU was signed between **IBM and DCE**.
- **MoU was signed with Xentaqsys Technologies Private Limited** last month for enhancing the Personality and skills (Aptitude and Mental Ability Tests) of Final Year Students.
- **ROBOTICS CLUB:** Our students have done good progress in fabricating a project "**To develop the development board and software interface for Microcontroller 8051**" in association with '**Building Blocks**'. Following students are involved in the project.

Student Name	Sem/Dept.	Roll No.
Aditya Gaba	VIII ECE	9093
Koduri Smitha	VIII ECE	9139
Ajitesh Bhatia	VIII ECE	9096
Shubhendu Pandey	VI ECE	10242

They will get a **stipend of Rs. 15,000/- after the completion of the project** from the promoters associated with the Project.

- Thirteen Research Papers authored by the faculty members of ECE department on Emerging Communication Technologies have been submitted for publication in **Dronacharya Research Journal**.
- **Mrs. Anisha Kamboj**, faculty ECE department has been selected to undergo **full time Ph.D programme at IIT, Delhi**.
- **The College has been a successful centre for SNAP-09 for admission to Symbiosis Institute on 20th December, 2009, XLRI Aptitude Test-2010 and CAT Examination.**
- **ALUMNI MEET:** The second Alumni Meet was organized on **01st January, 2010 at Hotel Taj, New Delhi** wherein all pass out Dronacharyans assembled and exchanged their views and reviews. It is really a matter of pride for us to know that the students passed out are doing extremely well in the field of Technology, Management and Entrepreneurship etc.
- **INDUSTRIAL VISIT BY FINAL YEAR STUDENTS:** During the last semester, 95 students of VII semester ECE Dept visited Air Force Station, Tughlakabad, New Delhi accompanied by two faculty members **Mrs. Sakshi Pahuja and Mr. P. Patnaik**. They were shown a demonstration regarding the maintenance and repair facilities related to RADARs and missiles.



Technical Workshop/Conference Attended By Faculty Members :

- **Prof. Y. P. Chopra and Mrs. Swati Jha** attended three days Entrepreneurship Foundation Course at International Institute of Management in Qutab Enclave, New Delhi from 6th to 8th October, 2009.
- **Miss Gulnar Perveen attended a seminar on MATLAB and Simulink** for Engineering education at Park-Mantra, 15 Parliament Street, New Delhi on 25th Nov 2009.
- **Mrs. Sakshi Pahuja attended one day Workshop on MATLAB** at Ansal Institute of Technology, Gurgaon on 19 Dec.
- **Mrs. Jyoti Dargan and Mrs. Seema Das attended 6th EFY 2009 awards held at India Habitat Centre, Delhi, on 16th Dec 2009** organized by Electronics For You (EFY) the premier publishing group for the Electronics Industry.

Live Projects Undertaken By Students :

Data Logger

In this project Temperature sensor senses the temperature continuously and this data from the sensor is converted into electrical signal with the help of the op-amp amplifier circuit. Output of the amplifier is fed to the microcontroller through Analog to Digital Converter (ADC). Output of the ADC is further connected to the microcontroller and then the temperature data on the LCD is displayed.

LCD displays current temperature on the 1st line and set temperature on the second line. In normal conditions when current temperature is below the set temperature then output signal is available. The aim of this project is to help, to manage and monitor conditions within incubators in the infant ICU using the hospital network. This will overcome space limits that restrict available room for controlling equipments and to enable immediate response to unusual circumstances.

Automatic Phase Selector (APS)

Auto Phase Selector (APS) system is used to ensure continuous supply to load in case mains supply is not healthy. This unit is very useful at the sites at which mains supply is irregular. It may be sometimes very high or sometimes very low voltage. The frequent failures/fluctuations of power affects life of power plant and battery. The objective of the APS is to ensure that there is continued commercial power supplied to the site at all times so as to ensure that the Base Transceiver Station (BTS) runs on commercial power until all available phases are either out of electrical tolerance or completely off. This is a micro controller based unit and is used with three phase electrical supply. Whenever the supply of one or two phases of a three phase electrical line goes off, the APS system automatically distributes the electrical supply from the active phase to the failed phases. This ensures continuous power supply through all the three phases even if one phase is active.

Autonomous Metro

In this project, a prototype of the small metro capable of showing the station on the LCD display with various other facilities is designed. This metro is run on the DC gear motor. Metro train is auto stop on 5 different stations and reverses automatically with Voice Announcement facility. The DC motor is attached with the gear inside to reduce the speed of the vehicle. For controlling the direction of the motor we use H bridge circuit. With the help of H bridge it is possible to control the direction of motor on either side.

In this project following facilities can be developed.

- Auto stop of the train on few selected stations
- Sensor based stoppage
- Auto braking
- LCD display to show the station
- Auto reverse movement
- Voice announcement

Student's Viewpoint About The Department :

My four years at Dronacharya College of Engineering has proved to be a life changing experience in terms of my Academics. The motivation of highly dedicated Faculty Members enhance the thought process within the students and help them building a 360 degree Vision. It encourages us to go beyond to experiment and play with new ideas, changing their perception. Proud to be a Dronacharyan...!!



Aditya Gaba (Roll No. 9093)

"SHIKSHA AVAM SAHAYTA"

The motto of our College represents its soul and true spirit. Dronacharya College of Engineering imparts practical skills along with knowledge by its effective academic curriculum and various interactive seminars and activities. Our college provides the wings to budding ideas of the students and inspires them to achieve success in their respective fields. It motivates them to strive for excellence and to work whole heartedly in their respective fields.



Apporva Kaushik (Roll No. 9112)

Dronacharya College of Engineering is a pioneer institute in the field of engineering. The motto of the institution is "**SHIKSHA EVAM SAHAYATA**" i.e. making better engineers who are not only well acquainted but are also morally guided, thus justifying the tagline of the institution "**GURUKUL COMBINING TRADITION WITH MODERNITY**".



Department of Electronics and Communication Engineering has been successful in cultivating the minds of the students with theoretical knowledge as well as practical experience. With the latest equipments and well trained faculty members and lab instructors the students are being trained as well as encouraged for research in the field.

This has helped the students in creating prize winning projects. The various Clubs functional in the institution also help the students to enlighten their mind with the activities they like the most like Robotics Club, Environment Club, Health Club etc .

This makes me feel proud to be a student of this great institution where success is a guarantee.

Sanjeev Kumar Awasthi (Roll No. 10235)

The major driving force for the present day Technology revolution is the development in Electronics and Communication Engineering. The advancements in Microelectronics, Satellite and Optical Fiber Technology, Analog and Digital Communication Techniques have resulted in developing state-of-the-art electronics devices, circuits and equipments capable of implementing fast and efficient telecommunication systems.



As a student of Dronacharya College of Engineering, I am pleased to say that the college has been very supportive in this regard. Recently started Robotics Club is also a very useful step taken by the department to encourage the students for doing research in the related field.

Shubhendu Pandey (Roll No. 10242)