



# DRONACHARYA COLLEGE OF ENGINEERING

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ISSUE OF ELECTRONICS AND COMMUNICATION DEPARTMENT

From Editor's Desk :

**"Great achievers don't rest on their laurels."**

Dronacharya College of Engineering has enviably emerged as a Premier Institute in the sphere of technical education in the NCR. We have achieved gratifying goals, hit tantalizing targets with an unprecedented zeal and zoom and proved ourselves. The College has successfully completed a decade of glorious growth and entered into eleventh year of its significant existence, shaping careers of thousands of young




aspirants by means of exemplary and hi-tech professional education and by helping them get suitable placements in the competitive job market. At Dronacharya every new session draws more and more aspirants to it because of the quality of technical education imparted here, a highly disciplined academic environment and a scope of all round development of personality. **Eighteen Merits in a row as evident from the university results of the odd semesters offer ample proof of diligence and devotion of students as well as the Faculty.** The vision of the management, the dedication of the head of the Institution and ceaseless endeavours of the H.O.D's, faculties and other staff members have raised this prestigious Institution to greater heights giving Dronacharya a pride of a place amongst Colleges in the NCR.

**"What is there in a name?"**

**A rose will not smell less sweet, if called by another name." said Shakespeare**

But we at Dronacharya beg to differ and believe that there lies a great sanctity, significance and solemnity in a name. The name of Guru Dronacharya has proved to be a tag of excellence and this historic nomenclature has turned out for us to be a talisman of oomph and triumph.

 Editor, (Dr. R. C. Narula)

From HOD's Desk :

The Department of Electronics & Communication Engineering is imparting the required technical and practical knowledge to the students. The Department has well equipped laboratories with the latest of kits and equipment available so as to give practical hands on experience to our students. The equipments available in the labs are upgraded as an on going process so as to keep pace with the latest developments in the field of Electronics & Communication Engineering.



The Department makes efforts to ensure that knowledge of the faculty is also updated regularly by arranging National Seminars, short term courses, faculty development Programmes in the college as well by sending them to attend Seminars/Conferences at outside institutions. It is because we believe that a well-qualified and learned faculty is able to disseminate knowledge to the students in a better way. Lectures on personality development, ethics, mannerism, confidence building and conduct of group discussions by senior faculty helps our students to develop themselves into confident and perfect professionals so as to prove to be an asset to any organization they choose to work with.

 Head of the Department, (Prof. Satya Prakash)



## Honours And Awards :

The results of the Department have been very encouraging. The University results of VII Sem., V Sem. and III sem. were 92.28%, 88.6% and 90.3% respectively. Four students of our Department are placed in University Merit list. The final year student **Shilpi Bawa was presented award by the Chief Guest** for her outstanding performance in the academics on 26th April 08.

The following students also put up glittering performance in the recently announced results for odd semesters:

Abhinav Khare	VII sem, 5th position
Priyanka Kataria	VII sem, 6th position
Rahul Gupta	V sem, 3rd position
Kanika Vashist	V sem, 12th position

## Placement Achievements :

The College has a full-fledged Training and Placement Cell which is doing a very good job in getting our students placed in companies of repute. Our students are attending campus placement sessions at other Institutes as well as those being organized at our College. Many of our students have been placed in companies like **L&T Infotech, Infosys Technologies, Accenture, DRDO Defence Services, and Satyam** to name a few. Many students who will be completing the graduation in 2009 have been well placed in reputed companies including **L&T Infotech, Infosys Technologies** etc.

## Live Projects Undertaken By Students :

The Final Year students undertake the fabrication of a live project as a part of the training curriculum under the guidance of highly competent Faculty. The project work encompasses the use of Microcontrollers, Infrared Sensors, Robotics, Digitally Operated Devices and IC's. Many projects developed and fabricated by our students have been unique which display deep understanding of the concepts of Electronics & Communication Engineering. Some of the important projects already completed this year by our students are listed as under:- **Mobile Irrigation, Sensobot (Robotic Arm with speech recognition), Multistoried Car Parking System, Metro Auto Stop System, Mobile Controlled SPY Robot, Prepaid Energy Meter.**

In addition to the above, the college maintains regular interaction with the Electronics Industry in and around Gurgaon, so as to give a practical exposure to our students. Visits of our students of Pre-Final and Final Year to the Industry are arranged for that purpose. The students of the Department have undertaken the projects in consultation with Faridabad Industry Association (FIA). **It is really a matter of great pride for the Department that two of our projects (Mobile Irrigation & Robotic Arm with Speech Recognition) were selected by FIA to be demonstrated before the industrialists at Faridabad on 28th April 2008. Our students presented the same and MOBILE IRRIGATION was awarded the First Prize. The prizes were presented to the team of students on 10th May 2008 by Vice President of FIA.**

### MOBILE IRRIGATION

In this project it is shown how one can control the irrigation with the help of any Mobile phone. With the help of this project we switch on or off any pump in any part of the country by just a phone call. This new concept in remote technology is very useful for the agriculture sector. Not only in the agriculture sector but it also provides a smart addition in every technology.

With the help of this project one cannot only control the movement of any electrical appliances but also get an acknowledgment. In this project first of all we dial the predetermined number which is connected with this unit. At the receiver end phone call is received automatically as the mobile is set at auto answering mode. As the phone is on it is possible for circuit to receive a data. Here in this project we use DTMF controller technology to control all the functioning of this project.



## SPEECH AND OBSTACLE SENSING ROBOT (SENSOBOT)

SENSOBOT consists of a mobile platform robotic hand with a voice recognition function. The mechanical intelligence is controlled through speech recognition chip via microcontroller and obstacle is detected by infrared sensor. The design of the hand allows us to pick and place simple objects up to 500 gms. anywhere just by recognition and move through any terrain. SENSOBOT is made up of four metal segments, joined by three joints. The speech signals i.e. signaling words or commands direct the microcontroller to control the robot by rotating individual d.c. motors connected to each joint. SENSOBOT's job is to move an end effector i.e. gripper from place to place.

SENSOBOT has five degrees of freedom:

- Up and down movement of the shoulder: Shoulder Pitch
- Side to side movement of shoulder: Shoulder Yaw
- Up and down movement of the elbow: Elbow Pitch
- Rotation of wrist: Wrist Roll
- Movement of the base

SENSOBOT is named so, due to its sensing features which distinguish it from many of the existing robotics systems. Thus the SENSOBOT's operation is based on the sensing parameters induced into it so as to operate it even in the hazardous and inhuman environment with the minimal human assistance. SENSOBOT's operation is based on three technologies namely **speech recognition, wireless transmission and infrared detection.**



### Student's Viewpoint About The Department :



Dronacharya College of Engineering is set in environment friendly sprawling lawns, spacious class rooms and labs and having atmosphere conducive to the development of the students' scientific temperament. Combining tradition with modernity, we learn the importance of our values and age-old gurukul parampara. The Presentations and Seminars enable us to understand technical and non-technical topics at various stages which help to boost our confidence. The practical training, as a part of 2nd and 3rd curriculum, gives us an idea of Industry conditions and prepares us for the world, once we step out of the protective college walls. But the most important thing we have learnt in the four years at the college is that to achieve something, we have to aim high and settle for nothing less than the best. Besides this our reputed College conducts activities like Technofest, Sports week and Annual Day in which the students enjoy the functions which generates feeling of togetherness. At the end I feel that I am enjoying my College with studies and extra curricular activities which makes me proud of my college.

**Priyanka Kataria**

(Roll No. 7165)



Gurukul, is the exact word for our prestigious College which is on the way of getting global success in the academic field. Our Institute has become the "**Beginners Guide**" for all other Institutions. Highly experienced and painstaking Professors and Lecturers treat us as their own children and devote their valuable time to impart not only the technical knowledge but also the much needed social values to us. Under the guidance of our worthy H.O.D. and seasoned faculty, our Department is leading to create history as our seniors are well placed in the country and across the country. Students undergo through different seminars and training and Project competitions which helps to boost up the confidence level of students. I have the proud privilege to present this view about my College and Department.

**Deepak Rana**

(Roll No. 7026)



I am highly obliged to be a member of Dronacharya gurukul. Each and every person directly or indirectly associated with the Institution is a member of the family. The faculty members of the Institution form the senior members of the family. The faculty is highly educated and hard working. They put in dedicated efforts to uplift the overall performance of students. In addition to the academic field, efforts are being made by the faculty to improve the moral values of the students. Co-curricular activities relieve the strain and contribute to converting a student to a good and healthy citizen. The Placement Cell has turned out to be another feather in the hat. Students are being placed in reputed companies across the length and breadth of the country and even abroad. Thus in a nutshell, it can be said that this prestigious gurukul does the duty of converting a raw student into a self dependent, sincere and a hard working technocrat as well as a good citizen.

**Vinay Shimar**  
(Roll No. 7713)



***"Where there is Will there is Way"***

With this thought in mind, Dronacharya College of Engineering had been started in 1998 to provide technical education to the youth round the country. Today with its branches as four pillars, it is capable of bearing the onus of making meticulous technocrats. I am proud of my Institute as it has completed 10 years and is going global way successfully. Electronics and Communication Department with its veteran faculty and industrious students always try to bring laurels to the College. I believe that the guru-shishya parampara of ancient days is truly followed in our Department. Highly experienced and painstaking Professors and Lecturers treat us as their own children and devote their valuable time to impart not only the technical knowledge but also the much needed social values to us. ***Under the guidance of H.O.D. and Senior faculty, our Department is leading to create history as our seniors are well placed in India and abroad.*** I have the proud privilege to present this view about my College and Department on the net. I am truly thankful to the College administration for providing me this great opportunity.

**Nitin Sachdeva**  
(Roll No. 7245)