



# THE ELECOMM

## A Quarterly Newsletter

Department of Electronics & Communication Engg, Echelon Institute of Technology,  
Faridabad

VOLUME-IX ISSUE-III

JAN-MARCH-2018

*We are very glad to present the next issue of "THE ELECOMM". We would like to take this opportunity to welcome the students back after exams. We hope in this semester the students strive harder to achieve their goals. With this quarterly newsletter, we would like to keep you updated with the happenings of the department.*

*Nitu Chauhan*

*Editor*

### **Highlights**

- ❖ **Technical Article**
- ❖ **Holi Celebration**
- ❖ **Seminars and lectures**
- ❖ **Student's Industrial visit**
- ❖ **Welcoming New members**

### **Autonomous Flying Microrobots RoboBees**

Autonomously flying microrobots which can be used in crop pollination, search and rescue missions, surveillance, as well as high-

resolution weather, climate and environmental monitoring.

Taking inspiration from the bees researchers have developed the Robobees which are about half the size of a paper clip and weighs in milligrams. It flies using artificial muscles comprised of materials that contract when a voltage is applied. Additional modifications allow some models of RoboBee to transition from swimming underwater to flying, as well as "perch" on surfaces using static electricity.

The masterminding of the RoboBee was motivated by the idea to develop autonomous micro aerial vehicles capable of self-contained, self-directed flight and of achieving coordinated behavior in large groups. To that end, the RoboBee development is broadly divided into three main components: the Body, Brain, and Colony. Body development consists of constructing robotic insects able to fly on their own with the help of a compact and seamlessly integrated power source; brain development is

concerned with “smart” sensors and control electronics that mimic the eyes and antennae of a bee, and can sense and respond dynamically to the environment; the Colony’s focus is about coordinating the behavior of many independent robots so they act as an effective unit.

NASA is planning to send the RoboBees to Mars not only to map the Martian terrain but also to collect samples of the planet's thin air in hopes of finding methane gas — a possible sign of life.

*Nitu Chauhan  
Assistant Professor  
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### ***Holi Celebration***

Holi, the festival of colours is celebrated to signify the victory of good over evil and the arrival of spring after winter. The students organised Holi celebration on 1st March 2018 at Echelon. Everyone enjoyed the festival of colours a lot.

### **Glimpses of holi celebration**



### **Seminars and lectures held**

- ❖ Mr. Ramesh Atre (Associate Vice President) Munjal Showa Ltd. delivered a lecture on “**Lean Manufacturing system and Total Productive Maintenance**” on 21<sup>st</sup> March, 2018.
- ❖ A seminar on “**Personal Interview & Resume Writing**” was given by Dr. Tavleen Kaur. Dr. Tavleen Kaur is a faculty in IBS, Gurugram on 20<sup>th</sup> March, 2018. She talked about how to face the interviews, what are the expectations of the interviewer and how to crack an interview. She also elucidated the pros and cons of resume writing.
- ❖ A seminar was conducted on “**3-D printing and Arduino**” by Techno Planet Lab Pvt. on 12th March 2018. Students were given an insight into 3-D printing technology and its future scope. They also explained Arduino board, its

applications and projects based on Arduino .

- ❖ A workshop on “**Resume Writing and How to crack an interview**” was conducted by IMS on 5<sup>th</sup> Feb, 2018. The workshop helped the students to prepare themselves for the upcoming placement drives.

### **Industrial Visit to Harduaganj Thermal power station**

All 2<sup>nd</sup> Year students visited the Harduaganj Thermal power station of Uttar Pradesh Vidyut Utpadan Nigam, Aligarh on 12<sup>th</sup> Feb 2018.

### ***Acknowledgment***

For the publication of “THE ELECOMM” I would like to thank the faculty of the ECE department for their valuable suggestions.

Nitu Chauhan

(Editor -The Elecomm)

### **Editorial Board**

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