

Annual Report Electronics Department 2016-17

The electronics subject is taught at general level for B.Sc. (computer science) students. Along with usual lecture method power point presentation, Animations and videos are used for making subject simplified and interesting. In order to familiarize students with recent technological developments, to enrich their knowledge and to develop skills amongst them various co curricular activities are organized by the department.

1) “I-SENSOBOTZ” A Two Days Workshop on ROBOTICS: To introduce students with the field of **Robotics** and to provide “hands on” experience in the subject of microcontrollers with Arduino platform ; **Electronics department ,Mamasaheb Mohol college** in association with **Board of student Welfare ,SSPU,Robocart.com ,Mumbai and innovation cell IIT Bombay** organized two days workshop on “**Robotics** ”during **12thand 13th JAN 2017**. During these two days the students were trained to build Robots using autonomous Robotics kits and programmed robots using Arduino platform. They built line follower Robot, Timer Control Robot, Obstacle avoider robot, Photo phobic, photo tropic and sound controlled robot applications. At the outset of the workshop the **competition** was held and first three groups were awarded with the **merit certificate**.

2) One Day Workshop on “Internet of Things”: The Internet of Things (IoT) refers to the connection of devices to the Internet. Cars, kitchen appliances, and even heart monitors can all be connected through the IoT. The IoT market is going to build 31 fold till 2020 in India according to analysts. To introduce the students and provide hands on experience **Electronics department, Mamasaheb Mohol College** in association with **IoTexperts.cc** organized one day workshop on “**Internet of Things (IoT)**”on 18th FEB 2017. During this workshop the students were acquainted with Basics of IOT, Arduino platform, Arduino programming, interfacing of sensors. The training was provided for the projects: LED blinking using arduino through internet and interface LM35 sensor for recording temperature through internet on smart phone. Twenty students from FY/SY/TY B Sc (comp. Sc.) participated in the workshop.

3) Wall magazine “Bits & Bytes”:

To familiarize technological happenings in Technological advancements Electronics department displays a wall magazine **Bits and Bytes**. During this year articles on the following subjects were displayed:

LTE (Long Term evolution), QKD (Quantum Key Distribution) and Molecular Machines

4) Student participation in various activities:

Students are motivated to participate in various activities conducted by college and other institutions so that they will be able to cope up with the today's competitive world. The student participation in various activities as follows:

Participation in college science exhibition:

Sr.No.	Name	Class	Activity	Details
1.	Akash Birajdar	SYBSc	Project	LDR Based automatic street light
2.	Aniket Jangam	TYBSc	Poster	Li-Fi technology
3.	Soni Chougule and Nikita Kamble	SYBSc	Poster	International Pulse Year

Participation in intercollegiate project competition SCAPTA:

Sr.No.	Name	Class	Activity	Details	Prize
1.	Akash Birajdar and Vijay Ghatage	SYBSc	Project	Line follower robot	Third consolation Prize
2.	Sandeep Rathod And Rohit Vavale	SYBSc	Project	Obstacle avoider Robot	-----
3.	Shubham Kakani	SYBSc	Project	Sixth sense Technology	-----

5) Teacher Achievements:

Head of the department Mrs. S. S. Rane has authored research papers at international level as follows:

- 1) Paper entitled "Fiber optic humidity sensor based on Ag decorated ZnO nanorods" published in proceedings of 40TH INTERNATIONAL MICROELECTRONICS AND PACKAGING IMAPS POLAND 2016 ISBN 978-83-932464-2-7
- 2) Paper entitled "Hydrogen, ethanol and ammonia gas sensing properties of nano-structured titanium dioxide thick films" is published in International Journal of Materials Science: Materials in Electronics ISSN No- 0957-4522, DOI 10.1007/s10854-017-6632-0 Publisher Springer Science New York.
- 3) Poster presented at International conference on advanced rechargeable batteries and allied materials -2017 (ICARBM-2017) during 08/03/2017 to 10/03/2017.

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**Mrs. S. S. Rane
Head of the Department**