



PRABODHAN SHIKSHAN PRASARAK SANSTHA'S (Regd.No. E-697 Ratnagiri)  
RAJENDRA MANE COLLEGE OF ENGINEERING AND TECHNOLOGY  
Approved by AICTE, Recognised by D.T.E & Affiliated to University of Mumbai

Accredited by NAAC with 'B+' Grade

Office : At & Po – Ambav (Devrukh) Tal – Sangmeshwar, Dist – Ratnagiri, Pin – 415804 (Maharashtra)  
Email : info@rmcet.com • Website : www.rmcet.com

## SUMMARY SHEET

### WORKSHOP DETAILS

**Academic Year:**2018-19

**Workshop Name:** “Arduino & Raspberry Pi Programming with IOT Platform”

**Duration:** 45 Hrs

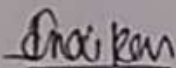
**Dates:** from 15th to 17th Oct 2018, From 1st to 3rd Feb 2019, From 25th to 28th March 2019

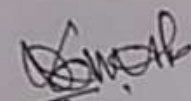
**Coordinator:** Mr. P. D. Waikar (Assistant Professor, Department of EXTC Engineering RM CET)

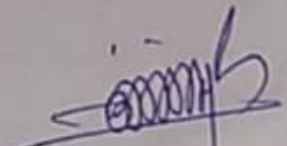
**Resource Person:** Mr. Shreekrishna Jagtap,  
Genesis Technology, Pvt. Ltd.

**Numbers of Students Attended:** 54 students of BE EXTC

**Documents attached:** 1. Report  
2. Attendance Sheets

  
Mr. P. D. Waikar

  
Mr. Bhushe G. V.

  
HOD EXTC



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**Department of Electronics and Telecommunication Engineering**

**Academic Year 2018-19**

Report on **45 Hrs** workshop on  
**“Arduino & Raspberry Pi Programming with IOT Platform”**  
Academic Year 2018-19

**Resource person:** Mr. Shreekrishna Jagtap,

Genesis Technology, Pvt. Ltd.

**Coordinator:** Mr. P. D. Waikar (Assistant Professor, RMCET)

**Objective:** To enhance the Technical skills of BE students to develop final year project

**About workshop:**

The 45 Hrs intensive workshop on the introduction to Arduino, its interfacing with peripherals, the introduction to raspberry, installation of its OS, coding for Arduino IDE & python with Internet of Things (IoT) conducted by Genesis Technology, Pvt. Ltd. to involve students in a cohesive drive with the academia and industry towards excellence in Internet of Things (IoT) technology. This workshop is an attempt to cover material relevant to giving students necessary knowledge and skill set to appreciate the rapid changing scenario in Internet of Things (IoT) and take advantage of this in furthering their career. Practical/laboratory sessions are held, which will supplement the knowledge disseminated during the lecture sessions with adequate hands on experience.

Workshop was conducted in three phases 1st phase included Arduino its Interfacing with various devices, IOT platform for Arduino. The phase two included projects work related to raspberry pi. Its OS installation, python coding & interfacing with various devices & MIT app Inventor focused on the practical application of technologies through the facilitation of a project- related lab. More than 80% time was utilized for



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laboratory session. The third phase actually included trouble shooting & actual fault finding & rectification & correction in various projects hardware & software.

**Duration:**

It was 45 Hrs extensive workshop (from 15<sup>th</sup> to 17<sup>th</sup> Oct 2018, From 1<sup>st</sup> to 3<sup>rd</sup> Feb 2019, From 25<sup>th</sup> to 28<sup>th</sup> March 2019). During this schedule students gained valuable hands-on experience.

**Numbers of beneficiary**

Totally 54 students of final year EXTC have attended this workshop.

**Software Tools:** 1] Arduino IDE

2] python

3] MIT APP Inventor

4] Think speak

**Course content:**

❖ **Arduino Uno, Wi-Fi module, Raspberry, python coding, Think Speak**

- Introduction to Arduino
- Its interfacing with peripheral devices
- Introduction to IOT
- Current Business Trends in IOT
- IOT Application architecture
- Introduction to ESP 8266
- ESP Module Types and Features
- Introduction to node MCU
- Programming to ESP 8266 In Arduino
- How to connect to WIFI in ESP 8266
- How to install raspberry OS
- Programming in Python
- MIT app Inventor



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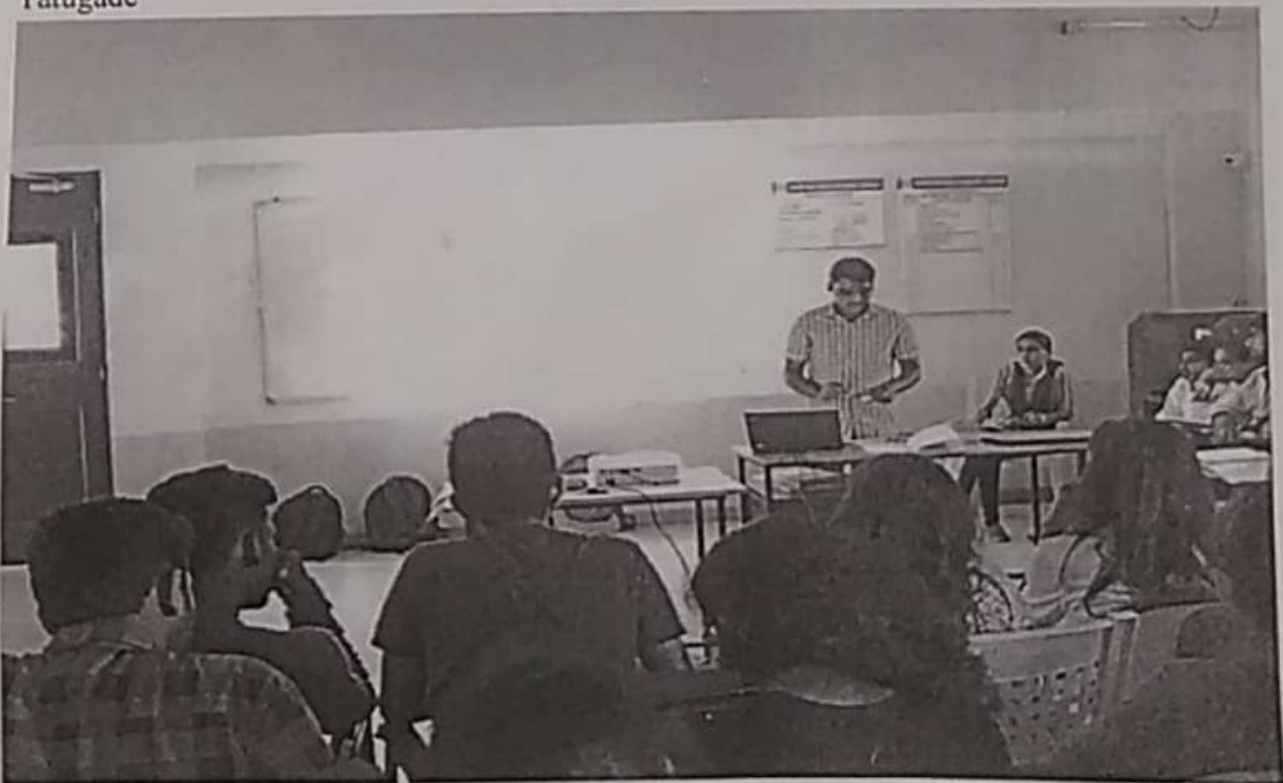
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➤ Home application using IOT



Felicitation of Resource person Mr. Shreekrishna Jagtap by HOD of EXTC Engg. Mr. A. A. Tatugade



Session Conducted by Expert



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Students attending the session