PRABODHAN SHIKSHAN PRASARAK SANSTHA'S (Regd.No, E-697 Ratnagiri)
RAJENDRA MANE COLLEGE OF ENGINEERING AND TECHNOLOGY

## SUMMARY SHEET

## WORKSHOP DETAILS

Academic Year:2019-20

> Workshop Name: "IOT using Arduino Raspberry PI \& its Real time Application"
> Duration: 3Days

Dates: From $3^{\text {rd }}$ to $5^{\text {th }}$ January 2019,
Coordinator: Mr. P. D. Waikar (Assistant Professor, Department of
EXTC Engineering RMCET)

Resource Persons: Mr. Rahul Gupta, Mr. Tejas Kasare
(The Intellect Technologies, Mumbai)
Numbers of Students Attended: 22 students of BE EXTC
Documents attached: 1. Report
2. Attendance Sheets

Straiten
Mr. P. D. Waikar Workshop Coordinator


Mr. A. A. Tatugade
HOD, EXT ${ }^{0.6}$.

Principal

# PRABODHAN SHIKSHAN PRASARAK SANSTHA'S (Regd.No. E-697 Ratnagiri) RAJENDRA MANE COLLEGE OF ENGINEERING AND TECHNOLOGY <br> Recognised by AICTE, Affiliated to Mumbai University Office : At \& Po - Ambav (Devrukh)-415804 Tal: Sangmeshwar, Dist: Ratnagiri, (Maharastra) <br> : ( 02354 ) 260992• Fax: (02354) 261501 • Email : info@mcet.com • Website : www.rmcet.com Department of Electronics and Telecommunication Engineering Academic Year 2019-20 A Summary Report of STTP on "IOT using Arduino Raspberry PI \& its real time Application" <br> Academic Year 2019-20 

Resource person: Mr. Rahul Gupta, Mr. Tejas Kasare
(The Intellect Technologies, Mumbai)
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 Short Term training progran 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 The Intellect Technologies, Mumbai 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

Department of Electronics and Telecommunication Engineering laboratory session. The third phase actually included trouble shooting \& actual fault finding \& rectification \& correction in various projects hardware \& software.

Duration:
It was an extensive workshop on Python \& Raspberry with IOT from $3^{\text {rd }}$ to5 ${ }^{\text {th }}$ January 2020,During this schedule students gained valuable hands-on experience.

## Numbers of beneficiary

Totally 22 students of final year EXTC had attended this workshop.

Software Tools: 1] Arduino IDE
2] python Coding

3] Camera Interfacing with Raspberry Pi
Course content:

Arduino Uno, Wi-Fi module, Raspberry, python coding, camera Interfacing
$>$ 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
$>$ Camera Interfacing with Raspberry Pi
$>$ Interfacing
$>$ Home application using IOT


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## Department of Electronics and Telecommunication Engineering

 Inaugural Function in presence of resource persons Mr. Rahul Gupta, Mr. Tejas Kasare with Respected Principal Sir Dr. M.M. Bhagwat, \&HOD of EXTC Department Mr. A. A. Tatugade \&Program Coordinator Mr. P.D. Waikar

Session Conducted by Expert Students attending the session


