



RAJEEV EDUCATION TRUST[®]
Rajeev Institute of Technology, Hassan



Two Days' Technical Workshop on

Raspberry Pi and Python

by

Pincore Technologies India Pvt. Ltd.

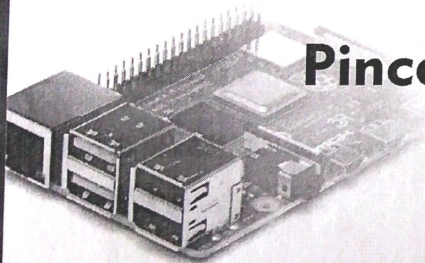
FOR E & CE STUDENTS

in association with IETE

ON



python™



17th & 18th February, 2020

Place: RIT Campus, Hassan

Report on Two day Workshop on "Raspberry Pi and Python"

Organized by the Department of Electronics and Communication Engineering, Rajeev Institute of Technology, Hassan on 17th and 18th February 2020

Two day workshop on "*Raspberry Pi and Python*" was organized by the Department of Electronics and Communication Engineering, Rajeev Institute of Technology, Hassan on 17th and 18th of February 2020 for 6th semester students. 65 students were actively participated in the workshop.

The main idea of this workshop is to introduce the practicality of Python in embedded systems and realizing its importance in real world. Also, making the students to identify and build their own small scale projects.

The workshop was conducted in technical association with Pincore Technologies India Pvt Ltd,. **Mr. Chiranth and Team**, Pincore Technologies India Pvt Ltd, Bangalore, were the resource persons.

The inaugural ceremony witnessed the presence of **Dr. A N Ramakrishna**, Principal, RIT, Hassan, **Dr. Dananjaya D A**, Vice Principal and HOD, Department of Mechanical Engineering, RIT, Hassan, **Dr. Aravind B N**, Professor & HOD, Department of Electronics and Communication Engineering, RIT, Hassan, the HODs of various departments, teaching and non-teaching faculties.

Dr. A N Ramakrishna, Principal, RIT inaugurated the workshop traditionally by lighting the lamp. In the motivational talk, he emphasized upon the importance of learning new technologies beyond syllabus. He also highlighted the importance of this workshop and the importance of Python in campus interview. Also, he encouraged to conduct similar workshop in future too.

Dr. Dananjaya D A, Vice Principal and HOD of Mechanical Engineering, highlighted the prominence of conducting workshops and inspired students to learn technologies from such workshops.

Dr. Aravind B N, Professor and HOD, Department of Electronics and Communication Engineering, welcomed the dignitaries, guests, faculties and participants.

Two day Workshop on "Raspberry Pi and Python"

Overview

Embedded system is part and parcel of every-day life. For beginners, several development boards are available. At a stage higher, single board computers plays an important role. It can be used over a range starting from science projects up to final year UG projects. Also, several real time applications and IoT systems can be implemented.

Course Objective:

- An introduction to the vastness of Embedded systems in real world applications.
- Understanding concepts of Python.
- Understanding the details of Raspberry Pi and its use as a single board computer.
- To develop applications using Python on Raspberry Pi.

Course Outcome:

- Understand the Python programming concepts.
- Understand interfacing of various sensors to Raspberry Pi and programming it using Python.
- Design and implement mini projects.

Time	Topic	Comments
Day 1 (17-02-2020)		
Morning session		
9:30am-10:15am	Inauguration	
10:15am-10:30pm	<i>Tea break</i>	
10:30am-1:00pm	Introduction to Python Introduction to Raspberry Pi Python programming in Raspberry Pi: Interfacing LED and Buzzer	Introduction to the Embedded Systems and Arduino
1:00pm-2:00pm	<i>Lunch break</i>	
Afternoon Session		
2:00pm-3:30pm	Creating time delays for LED and Buzzer. Reading time and date and displaying it on screen	Practical sessions
3:30pm-3:45pm	<i>Tea Break</i>	
3:45pm-5:00pm	Interfacing IR sensor	Sensor interface

	Interfacing Touch sensor	
Day 2 (18-02-2020)		
Morning session		
9:15am-11:15am	Interfacing DHT11	Developing mini projects
	Touch sensor based buzzer on/off	
	Touch sensor based LED on/off.	
	Smart doorbell using touch sensor, LED and Buzzer	
11:15am-11:30am	<i>Tea break</i>	
11:30am-1:00pm	Connecting to Local Wi-Fi and designing a Web server to turn the LED on/off	Practical sessions & IOT
	GUI based Web server to control two applications	
1:00pm-2:00pm	<i>Lunch break</i>	
Afternoon session		
2:00pm-4:15pm	Demonstration	Demonstrations
	Moister sensor based irrigation system using, ADC, Moisture sensor and Relay and uploading data to Thingspeak cloud.	
4:15pm-4:45pm	Valedictory & High-Tea	

Resource Persons
<p>Mr. Chiranth and Team Pincore Technologies India Pvt. Ltd. #10/1, 1st Main 7th Cross Sanjeevini Nagar Bangalore 72</p>

Group photo during valedictory



Presenting memento during valedictory

