

# **Rajeev Institute of Technology**

**Plot # 1-D (P-1), Growth Center, Industrial Area,  
Bangalore-Mangalore Bypass Road, Hassan-573201.**

## **Chief Patrons**

**Dr. V Rajeev, President,  
Dr. B N Rathna, Secretary,  
Rajeev Education Trust,  
Hassan**

## **Patron**

**Dr. A N Ramakrishna  
Principal**

## **Chairperson**

**Dr. Dhananjaya D A  
Vice- Principal &HOD,  
Mechanical Dept**

## **Chief Co-ordinator**

**Dr. Aravind B N  
HOD, E&CE**

## **Event Co-ordinator**

**Mrs. Ambika K  
Asst. Professor, E&CE**

## ***Greetings from Department of Electronics and Communication Engineering***

Dear Sir/Madam,

We are delighted to inform you that the technical club of Department of Electronics and Communication Engineering "**ELECTRORIT**" is organizing a two day workshop on "**Arduino and Applications of IOT**" in association with **Pincore Technologies India Pvt. Ltd.** on 15<sup>th</sup> and 16<sup>th</sup> February 2019. This workshop is intended to provide an insight in the field of IOT applications and implementation using arduino for the third year students of E&CE.

We cordially invite the HOD's and Faculty members of Rajeev Institute of Technology to join the inaugural function that will be held on 15<sup>th</sup> February at Seminar Hall, 4<sup>th</sup> Floor at 9.30am.

**With Warm Regards,  
HOD & Faculty Members, Dept. of E&CE**



## Two day Workshop on "Arduino and Applications of IOT"

### Overview

Embedded system is part and parcel of every-day life. For beginners, several development boards are available. Arduino is one of them. It can be used for science projects, final year UG projects and to build application modules.

### Course Objective:

- To introduce the vastness of Embedded systems in real world applications.
- To construct an Arduino basic circuit.
- To program and compile various tasks and applications using Arduino.
- To provide participants with the knowledge to develop and build their own embedded system applications.

### Learning Outcome:

- Obtained good understanding of microcontroller and its applications.
- Using of Integrated development environment for Arduino and debugging.
- Confidently construct and troubleshoot a microcontroller based applications like controlling relays, motor drives, IR sensor, ultrasonic sensor, light intensity control etc.
- Building a cost effective embedded application using various sensors.

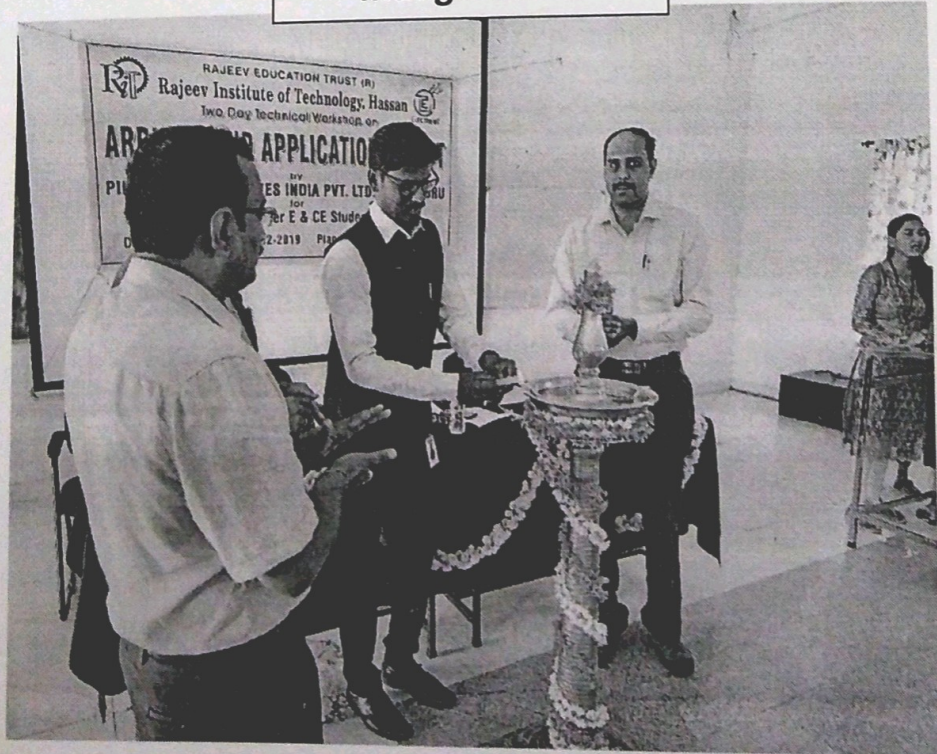
| Time                      | Topic                                | Comments   |
|---------------------------|--------------------------------------|--|
| <b>Day 1 (15-02-2019)</b> |                                      |  |
| <b>Morning session</b>    |                                      |  |
| 9:30am-10:30am            | <b>Inaguration</b>                   |  |
| 10:30am-10:45am           | <i>Tea break</i>                     |  |
| 10:45am-1:00pm            | Introduction to the Embedded Systems | Introduction to the Embedded Systems and Arduino |
|                           | Introduction to Arduino              |  |
|                           | Arduino IDE-Programming              |  |
| 1:00pm-2:00pm             | <i>Lunch break</i>                   |  |
| <b>Afternoon Session</b>  |                                      |  |
| 2:00pm-3:30pm             | Blink an LED                         | Practical sessions                               |
|                           | Making alarm with Buzzer             |  |
| 3:30pm-3:45pm             | <i>Tea Break</i>                     |  |
| 3:45pm-5:00pm             | Turn on/off LED and Buzzer           | Sensor interface                                 |
|                           | IR sensor                            |  |



| Day 2 (16-02-2019) |   |                          |
|--------------------|---|--------------------------|
| Morning session    |   |                          |
| 9:30am-11:15am     | Brief explanation of Analog and Digital Sensors         | Practical sessions       |
|                    | LDR sensor (Using analog pins)                          |                          |
|                    | Potentiometer   |                          |
| 11:15am-11:30am    | <i>Tea break</i>  |                          |
| 11:30am-1:00pm     | Motor Drivers   | Practical sessions & IOT |
|                    | Introduction to IOT, Cloud                              |                          |
| 1:00pm-2:00pm      | <i>Lunch break</i>                                      |                          |
| Afternoon session  |   |                          |
| 2:00pm-3:00pm      | <b>Demonstrations</b>                                   | Demonstrations           |
|                    | Measuring room temperature using ESP8266 and Thingspeak |                          |
| 3:00pm-3:30pm      | <b>Valedictory &amp; High-Tea</b>                       |                          |

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

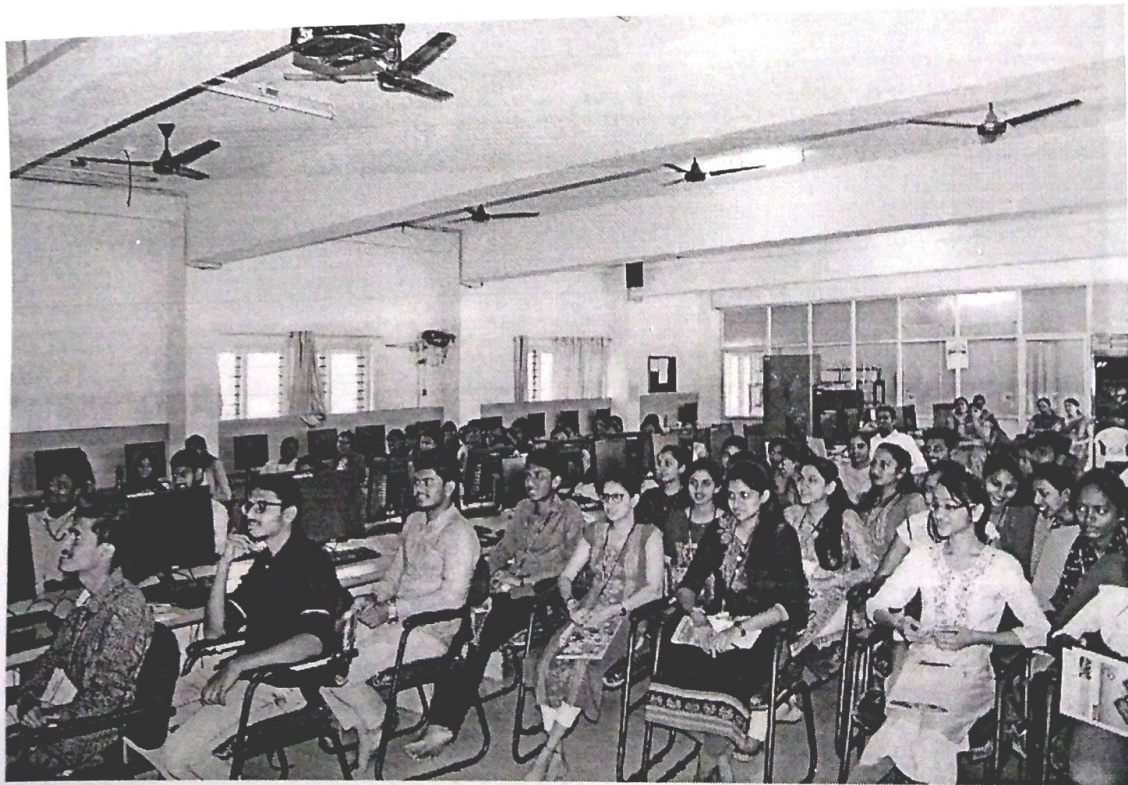
**Inauguration**



Two day workshop on "Arduino and Applications of IOT"



**Hands-on sessions**



Two day workshop on "Arduino and Applications of IOT"



**Presenting memento during valedictory**



**Group photo during valedictory**

