

IOT WORKSHOP

On 8th & 9th February 2017

Name :

College :

Organization :

Mail Address :

Phone/Fax :

Email :

Educational Qualification :

Accommodation required : Yes / No

Declaration by the candidate

I agree to abide by the rules and regulations

Date :

Signature of applicant

Place:

REGISTRATION DETAILS

BOARDING AND LODGING

Boarding and lodging facilities will be provided for the select participants in the student's hostel of the college on request.

DATES TO REMEMBER

Last date for submission
of application : 01.02.17

Intimation of acceptance : 03.02.17

REGISTRATION FEES

Students -Rs.600/- per participant

For Further information please visit our site at

<https://selvamtech.edu.in/iot/>

Follow us: [facebook.com/selvamtech](https://www.facebook.com/selvamtech)

Registration fee (non-refundable) includes admission to the programme, refreshments, lunch and one kit for group of three students.

WORKSHOP ON IOT USING

RASPBERRY PI AND

ESP8266

On 8th & 9th February 2017

Organized by

Department of

Computer Science and Engineering



Selvam College of Technology

Accredited by NAAC with "B+" Grade | UGC Recognized 2(f) Status | An ISO 9001:2008 Certified Institution

UGC Recognized 2(f) Status, Approved by AICTE,

Affiliated to Anna University, Chennai,

ISO – 9001 : 2008 Certified Institution.

Ponnusamy Nagar, Salem Road (NH-7),

Pappinaickenpatti (PO),

Namakkal - 637003. Tamilnadu, India.

Phone : 04286 - 645602.

Web : www.selvamtech.edu.in.

ABOUT THE COLLEGE

SCT is a front-runner in the field of education today in Namakkal by imparting multifaceted education. A well-directed education is a passport to a good, comfortable and secured life. SCT fully caters to the needs and aspirations of the student community and keeps itself to the changes taking place on the industrial and educational front of the country. V.Ponnusamy Educational and Charitable Trust got established by Dr.P.Selvaraj an Ideal Industrialist and Philanthropist in 2000 in the fond memory of his late father V.Ponnusamy to impart quality education, to establish epicentre of excellence in learning and research will blossom into an institution par excellence.

ABOUT THE DEPARTMENT

The Department of CSE incepted in the year 2006, with the main aim to provide a quality learning environment to meet the challenges of fast growing IT world. It offers B.E and M.E programme in Computer Science and Engineering. During the recent years the department has acquired national and international importance. It has been achieved by collective and responsive effort of the faculty, the supporting faculty and the students. The Department currently focusing on Research and Development activities and Project based learning besides regular teaching. The Department has excellent infrastructure facilities to provide quality education and training in the areas of recent trends of computer technology.

ORGANIZING COMMITTEE E CHIEF PATRONS

Dr. P.Selvaraj, B.V.Sc.,

Chairman

Dr. B.Kaviethra Nandhini, B.E.,M.B.A.,M.S.,Ph.D.,

Secretary

PATRON

Dr. R. Prabhu, M.E., Ph.D., P.G.D.P.M&IR., MISTE

Principal

CONVENOR

Prof.R.Bhuvanewari, *HOD/CSE*

CO-ORDINATOR & COMMUNICATE

Prof.T.Saravanan,

Mobile No.:9952871734

COURSE OBJECTIVES

- Explore the hardware and software tools (Python and Embedded C, HTML)
- IoT Platform and IO Configuration
- Interactive web applications
- Networking of Raspberry Pi

COURSE OUTCOMES

- Accessing Digital sensor via wifi with HTML Web server using ESP866
- Build your computer using Raspberry Pi platform
- Setup IoT connectivity using a remote desktop
- Develop and test an IoT weather monitoring station

DAY 1

Introduction to Internet of Things & ESP8266

- Architecture of IoT
- Application development life cycle in IoT
- Esp8266 introduction

ESP8266 Programming

- Setting up Arduino IDE for ESP8266
- Hello world
- Digital input & Output Programming

Creating HTML webserver

- Scanning the available wifi networks
- Connecting ESP8266 to Wifi Network
- Controlling LED via Web Server input\

Sensor interfacing

- Accessing Analog sensor via wifi with HTML Web server
- Getting time from NTP Server

Introduction To Raspberry Pi

- Flavours of raspberry pi
- BCM-Ethernet, BCM-Ethernet, USB
- Composite RCA, HDMI slot, camera slot
- Display slot, GPIO, SD card slo

DAY 2

Setting up Raspberry Pi

- Hello world with python
- Interfacing digital sensors with raspberry pi
- Making raspberry pi as software defined FM transmitter
- Raspberry PI interfacing with Arduino
- Webcam interfacing

HTML Programming

- Creating a webpage to control I-O devices, Reading data from sensor and passing to web page

IOT Projects

- Home automation and home security monitoring
- Live video streaming robot
- Smart plugs
- Standalone web server with online DBMS.