

## Registration Form

A State Level STTP  
on

### **“Designing embedded systems enhanced with IoT using Micropython”**

8<sup>th</sup> to 12<sup>th</sup> January 2019

Name: .....

Designation(Enrollment No in case of Student):  
.....

Department: .....

Organization: .....

Address .....

Mobile: .....

Email: .....

Qualification: .....

STTP Fee (per participant): .....

I will attend the STTP for the entire duration. I also undertake the responsibility to inform the coordinator sufficiently in advance, in case I am unable to attend the STTP. (Accommodation will not be provided)

Date:

Place:

Official seal

Signature of applicant

Signature of competent authority

## Patron

**Dr. N. D. Sharma**

Principal, GIDC Degree Engineering College  
Abrama, Navsari

## Convenor

**Prof. Archana M. Nayak**

Head, Computer Engineering Department  
GDEC, Abrama, Navsari

## Coordinator

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## Organizing Committee

Prof. Kaushik Patel, Prof. Kaushal Kevadia, Prof. Brijesh Patel, Prof. Kushal Patel, Prof. Mihir Mishra, Prof. Tejas Patel, Mr. Himanshu Patel, Mr. Nilesh Patel, Mrs. Amruta Naik

**GIDC Degree Engineering College  
Abrama, Navsari (Gujarat)**



**A State Level  
Short Term Training Programme**

on

### **“Designing embedded systems enhanced with IoT using Micropython”**

8<sup>th</sup> to 12<sup>th</sup> January 2019



Sponsored by

**Gujarat Council on Science & Technology,  
Department of Science and Technology,  
Govt. of Gujarat**

Organized by

**Computer Engineering Department  
GIDC Degree Engineering College  
Abrama, Navsari**

- : Address :-

Block No.997, Village Abrama, Tal. Jalalpore  
Dist. Navsari- 396406.Gujarat, India.  
Phone : +91 02637 229040  
Email : gidcengcol@gmail.com

## About the Institute

GIDC Degree Engineering College (GDEC) at village Abrama, Navsari, is a joint venture of Government of Gujarat & Gujarat Industrial Development Corporation (GIDC), Gandhinagar under Public Private Partnership (PPP) scheme. The institute was established in 2012 and is managed by GIDC Education Society, Gandhinagar. The institute offers UG courses in Mechanical, Civil, Automobile, Computer and Electrical branch. The institute is approved by AICTE, New Delhi and affiliated to GTU, Ahmedabad. The vision of the institute is to grow as a premier education and research institute in the field of engineering with global view point and serving with world class standards conferring excellence to the engineering products through dedicated and competent engineers.

## About The Programme

The Internet of Things (IoT) is an important topic in technology industry, policy, and engineering circles. This technology is embodied in a wide spectrum of networked products, systems, and sensors, which take advantage of advancements in computing power, electronics miniaturization, and network interconnections to offer new capabilities not previously possible. MicroPython is packed full of advanced features such as an interactive prompt, arbitrary precision integers, closures, list comprehension, generators, exception handling and more. MicroPython is an efficient implementation of the Python 3 and includes a small subset of the Python standard library. Embedded systems have become an integral part of IoT. The embedded systems industry was born with the invention of microcontrollers and since then it has evolved into various forms, from primarily being designed for machine control applications to various other new verticals with the convergence of communications.

## Course Content

- Interaction of embedded systems with physical world
- Embedded Software development using Open source microcontroller board
- Basic Python Programming
- Getting started with MicroPython & Firmware
- IoT Architecture & Applications
- Getting Familiar with various Embedded IoT Devices
- Introduction to ESP8266 and NodeMCU – WiFi Modules
- Understanding the architecture of ESP8266 & ESP32
- Interactive computing with NodeMCU using MicroPython
- Experimenting with sensors & actuators
- Offline & online webserver
- Android Application development
- IoT Protocols: HTTP & MQTT
- IoT cloud platforms: ThingSpeak & Ubidots
- Getting started with Raspberry Pi
- GPIO Programming of Raspberry Pi
- ArduPi & wiringPi
- Visual Programming: NodeRed
- Introduction to Real Time Operating System
- Interprocess communication using Raspberry Pi
- Getting started with contiki OS & cooja simulator

## Resource Person

**Mr. Jignesh Patoliya** is presently serving in the department of EC engineering at the Charotar University of Science and Technology Changa since Jan. 2009.

**Mr. Ashutosh Bhatt** is working as an Engineer in eInfochips Ltd, Ahmedabad in Product Engineering Services Division. He also provides technical consultancy at Intellectual Inspiraions Pvt Ltd, Ahmedabad.

**Mr. Miral Desai** is working as an Assistant Professor of Department of Electronics & Communication Engineering – Faculty of Technology & Engineering, CHARUSAT, Changa since 2014.

## Who should attend?

B.E/B.Tech Students & Faculty Members of following branches: E.C, Electrical, Computer science, Information Technology, Computer Engineering, MSCIT, BCA, MCA

## Registration Fees

Limited to **60** participants on first-come-first-serve basis. The registration fees of STTP is

- Rs. 1000 for student / research scholar
- Rs. 1200 for faculties
- Rs. 1500 for participants from industry

Payment should be made in cash at Computer Engineering Department, GDEC, Abrama, Navsari

Registration fee includes tea, lunch, and kit. All other expenses are to be bared by the participants.

## How to apply

Duly filled in application form, as per the given format should reach to the coordinator on or before **27/12/2018**.

-Online Registration link -

<https://goo.gl/forms/QDuG7vsRrJH4yasx1>

-Registration form can be downloaded from [www.gdec.in](http://www.gdec.in)

Last date for Online Registration : **24/12/2018**.

