

# Workshop on Using Software Development Kits and Plug-ins for Seamlessly Prototyping IoT based end applications

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Date: 28 July 2018

Time: 9.00 AM - 1.00 PM

Venue: Texas Instruments India, Bagmane Techpark, C.V.Raman Nagar Bangalore Campus, 560093



## About the Workshop:

There is widespread interest in the space of IoT (Internet of Things) and new applications are being announced each day. Yet, the development of software for an IoT application presents a number of challenges to the developers. Since IoT is interdisciplinary, it is not uncommon to see professionals from multiple disciplines such as mechanical, civil, electrical, electronics and computer engineering to work on IoT projects. As a result, the software development platform must be easy to use. This workshop will enable the participants to learn about using software development kits along with plug-ins to make the prototyping a seamless process. It is a platform for the participants to understand and create ready-to-use IoT-based end-applications.

## Instructors:

Osheen Nayak and Manoj R, Texas Instruments, India

## Registration:

**Prior online registration is mandatory.** The seminar is open to both IEEE/CAS members and non-members. The workshop is ideal for IoT developers, students, teachers and trainers. Participants can include students and hobbyists coming from diverse backgrounds - electronics, mechanical or computer science background and any professional working with Internet of Things based end applications. To cover the costs of the workshop, a nominal registration fee will be charged, which includes a working lunch, refreshments, and a participation certificate. Your registration will be confirmed and further details will be mailed.

- IEEE Members: Rs 500/-
- Non-members: Rs 750/-

Prior online registration is needed at <https://goo.gl/forms/YHiHlpk76s5SwA5E3> no later than July 15. Your registration will be confirmed and further details will be mailed. Registration fee can be paid through NEFT or Cheque/DD. Please follow the below instructions:

For NEFT:

- Name of the account / Payable to: IEEE CAS Bangalore Chapter
- A/C number – 1057 2947 24
- Central Bank of India, Miller Road Extension Branch (Code 02314)
- IFSC Code: CBIN0282314

Please send a screenshot of the NEFT Transaction to [accounts@ieee-cas-bangalore.org](mailto:accounts@ieee-cas-bangalore.org) with a copy to [registration@ieee-cas-bangalore.org](mailto:registration@ieee-cas-bangalore.org) mentioning your Name and A/c number for our reference.

For DD/Chq payments:

- Prepare the DD (Demand Draft) or cheque for the amount to "IEEE CAS Bangalore Chapter" payable at Bangalore. The Chq/DD is to be sent to: "C.P. Ravikumar, Secretary, IEEE CAS Bangalore Chapter, Texas Instruments, Bagmane Tech Park, CV Raman Nagar, Bangalore 560093" to reach us latest by July 18, 2018.
- Please write IEEE CAS SDK Workshop, your name and phone number on the reverse side of DD/Chq for our reference.
- Send the scanned copy of the DD/Chq through mail to [accounts@ieee-cas-bangalore.org](mailto:accounts@ieee-cas-bangalore.org) with a copy to [registration@ieee-cas-bangalore.org](mailto:registration@ieee-cas-bangalore.org).

## Course Description:

- Introduction to the course
  - Introduction to IOT
  - Motivation behind working with IOT
  - Existing problems for IOT developers
  - Overview of the course
- Introduction to SimpleLink Ecosystem
  - How to download and get started with SimpleLink LaunchPads.
  - Setting up an environment for MSP432P401R LaunchPad (if not done already).
- Introduction to SimpleLink Sensor and Actuator Plugin
  - How does Sensor and Actuator Plugin provide efficient solution to common problems faced by IOT developers
  - Installation and getting started with SAIL package
  - Configuring the software tools to use SAIL plugin.
- Diving deeper into SAIL
  - Walkthrough of the repository.
  - Brief of code composition.
- Hands on experience with multiple examples
  - Using Sensor BoosterPack to run Temperature and optical sensors. (Depends on availability of BoosterPacks).
  - Using LED and Button based examples.
- Workshop Review and Conclusions

## About the Instructors:

### Manoj R

Manoj is a Senior Software Engineer at TI and holds his expertise in the domain of functional safety, Software Development Kits and Plugins for IOT based devices. He has been working with TI since 2011 and holds a Master's degree in Embedded Systems from BITS Pilani.

Manoj is a seasoned presenter and blogger and has presented in various conferences like IEEE INIS, VDA Automotive SYS Conference, while his blogs are published on embedded.com. Manoj has regularly delivered talks at various institutes in Karnataka consistently.

His hobbies are playing badminton and cricket, along with cycling at weekends.

### Osheen Nayak

Osheen is a Software Engineer at TI and is experienced in SDKs and plugins for IOT based devices. His other areas of interests and expertise include Natural Language Processing, Computer Vision, Data Science and machine learning.

Osheen has been with TI for 12 months and his alma mater is Delhi Technological University, from where he completed his Bachelor's degree in "Engineering Physics with Majors in Electronics". Osheen has delivered seminars and tech talks for IEEE and TI on "A primer on Machine Learning and Artificial Intelligence" and "Natural Language Processing".

His hobbies include playing guitar, singing and eating. He is an avid football fan and also plays for TI football team.