

School of Electronics and Communication Engineering
IEEE Student Branch Correspondence

REPORT ON

**“TWO DAYS WORKSHOP ON
ANALOG SYSTEM, PCB DESIGN AND EMBEDDED C-PROGRAMMING”**

Date: 19th To 20th March 2016

Workshop Coordinators:

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IEEE Branch Counsellor

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Resource Persons:

STEPS is the brainchild of a team of professionals with a vision to continuously nurture qualified talent pool readily employable by the industry and to provide Design, Development, Process and Intellectual Property Rights consultancy services for industries. STEPS is an Authorized Training Partner for Texas Instruments INDIA. Core strengths of STEPS are in the areas of embedded systems, sensors with analog front end and industrial automation.

Total Students Participated: 60

Targeted Audience: IV Sem UG Students

About The Workshop:

This workshop on Analog system, PCB design and Embedded C programming was an exhaustive hands on training program on design of analog systems, PCB design and Embedded C programming from industry development perspective. On the first day of workshop, hands on experience using TINA TI for Analog system design was given and afternoon session was dedicated to PCB design using KiCad to build the schematic of analog system. The layout and layout verification of analog system was carried out. The embedded C using CCS was also used in second day. Simple interface experiments using MSP430 microcontroller were developed.

HIGHLIGHTS OF THE WORKSHOP

- Exposure to analog system and PCB design concepts.
- Design of analog system from industry development perspective
- Exploring KiCad IDE tool.
- Implementation of simple analog system in KiCad schematic editor
- Generating Bill of Materials (BOM)

- Understanding Embedded C
- Coding and Debugging of Embedded C
- Building analog system around the MSP430 development kit

Date	Topic Covered
19/03/2016 (DAY 1)	<ul style="list-style-type: none"> ➤ Introduction to Analog System from an industry development perspective. ➤ Overview of KiCad ➤ KiCad PCB tool Introduction ➤ Layout design and Verification of Analog Systems. ➤ Gerber Generation, Bill of materials generation
20/03/2016 (DAY 2)	<ul style="list-style-type: none"> ➤ Introduction to Embedded C ➤ Important consideration in embedded C ➤ Introduction to Embedded IDE ➤ Embedded C implementation on Hardware- MSP430.

Photographs

Photo-1: Workshop Inauguration



Photo-2: Day-1 Hands-on Session



Photo-3: Day-2 Hands-on Session

