

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY

SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING



JSS
SCIENCE AND
TECHNOLOGY
UNIVERSITY
MYSURU

- Constituent College of JSS Science and Technology University
- Approved by A.I.C.T.E
- Governed by the Grant-in-Aid Rules of Government of Karnataka
- Identified as lead institution for World Bank Assistance under TEQIP Scheme



JSS Mahavidyapeetha

JSS Science and Technology University(SJCE), Mysuru-570006

Department of Electronics and Communication

TEQIP-III Sponsored Finishing School on

Electronic Product Design

April 13th to May 12th 2019

Report

The next generation of technology innovations is presented with an enormous opportunity to young engineers. Upcoming young engineers, while highly skilled in areas of technical expertise, are less capable of applying the characteristics and poise of great inventors. They are facing a rapidly changing economy, an unstable political environment, complex business models, and hypercompetitive markets. *The only constant is change.* Having a conscious awareness of their environment, plus the skills and abilities to motivate and inspire oneself and others is key to not only surviving, but thriving. There is an expectation that both current and future engineers will be challenged to reconcile various technical upbringings with the demand for skills, charisma, and clarity, all with a sense of enthusiasm from diverse backgrounds

This course was structured to be highly interactive. Students will learn by being part of the discussion, bringing real experiences and perceptions of design concepts. The course materials concentrated on education of core principles of Electronic Product Design.

Contents of the Finishing School were well presented with hands on expertise which includes: Embedded Systems Design using PSOC, interfaces, ARM Cortex Architecture, Programming with C and C++, Embedded C, Java Fundamentals, Motor Controller, Data transfer between PC to controller, Wireless module control, PCB Design and Packaging, IoT App development and case studies.

Hands on Session with H/W – S/W tools includes:

PSOC Designer

PSOC Development Kits

Basic programming skills were taught to implement on Arduino board. Matlab simulation dealt in depth to have thorough knowledge in coding using add-on tool sets for real time application

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At the end of the finishing school the students have the ability to

1. Confidently work on PSOC and develop control application on embedded systems platform.
2. Develop applications on PSOC platform, and be well versed with Embedded C
3. Develop applications on C++ codes that are compatible to PSOC platform running Embedded C applications
4. Develop applications using Android for data logging and data analytics.
- 5, Develop hardware and software modules for electronic product design

This was verified by assessing the students through quiz on the following topics Arduino , Matlab, PCB and PSOC.

This course was designed for first year (Second semester) M Tech students of E C Department which includes Industrial Electronics, Network and Internet engineering and Automotive Electronics. Total strength of the finishing school was 47. The marks obtained by the students were enclosed along with the attendance sheet

Course Coordinator

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