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Report
on the
Workshop
"FPGA Based Design"

Date of the Event	19/03/2025
Title of the Event and Lecture	FPGA Based Design
Name of the Resource Speaker	Prof. Kuruvilla Varghese
Number of Participants	92
Venue	Seminar Hall 3 (Room No 34)

A Workshop on the topic "FPGA based Design" was organized at MVJ College of Engineering on 19th March 2025, providing students with a platform to explore cutting-edge FPGA technology for chip design. The event brought together students, faculty, and industry professionals to discuss advancements in FPGA technologies and explore opportunities related to projects, internships, and careers.

The Chief Guest for the session was Kuruvilla Varghese, a Chief Research Scientist at the Department of Electronic Systems Engineering (DESE, formerly CEDT), Indian Institute of Science, Bangalore. He is working at DESE since 1989. His main research interests are in Digital VLSI Systems and Computer Networks. Presently he is working on High performance accelerators for Machine Learning, Bioinformatics, and Networking using Field Programmable Gate Arrays (FPGA) in Reconfigurable Computing Lab at DESE.

His insights into FPGA applications, industry trends, and career pathways enriched the participants' understanding of this rapidly evolving domain.

Objectives of the Guest Lecture

- To enhance knowledge and skills in FPGA technology for chip design.
- To provide insights into career opportunities, internships, Expo in IISC and projects in the field of FPGA.

Event Overview

The Guest Lecture on "FPGA based Design" was organized by the Department of VLSI Design Engineering on 19th March 2025. The event was presided over by Dr. Remashan Kadriyadan, Professor of the Department (VLSI), with Prof. Kuruvilla Varghese, a Chief Research Scientist. The welcome address was delivered by Mrs Maria and Manaswani (UG-VLSI Students), and the session took place at Seminar Hall – 3 from 10:00 AM to 12:30 PM.

Prof. Kuruvilla Varghese, an expert in the FPGA domain, delivered an insightful lecture that provided a comprehensive overview of FPGA technology and its critical role in chip design. He explained what FPGA is, why it is used, how it works, and where it can be applied. He also provided a detailed explanation of FPGA devices basic FPGA devices to high-end SoC FPGA, with a focus on real-time applications.

Beyond theoretical insights, Prof. Kuruvilla Varghese shows different organization details in comparative tables, to shows the lots opportunities in this domain. The session concluded with a vote of thanks delivered by Dr. Rajesh Saha, expressing gratitude to the speaker, organizers, and participants for their valuable contributions to the event.

Acknowledgments

Special thanks to Prof. Kuruvilla Varghese for his inspiring presence and valuable insights. We also extend our gratitude to Shri M J Balachndar M and Dr. Ajayan K. R. and Dr. Shima Ramesh Maniyath for their continuous support. The organizing team appreciates the efforts of coordinators, faculty mentors, sponsors, and students for their contributions to the success of this event.

Dr. Remashan Kadriyadan welcoming chief guest Prof. Kuruvilla Varghese

Lecture by the speaker

Speakers' interactions with students

Vote of thanks conveyed by Dr. Rajesh Saha