



Guest Lecture on “FPGA 101 and its Use Cases”

Report on “FPGA 101 and its Use Cases”

MVJ College of Engineering, Bangalore, in association with IQAC, department of ECE organized a **Guest lecturer on “FPGA 101 & its Use Cases” on 06/12/2024 from 10:30am to 12:30pm.** The students of 3rd, 5th & 7th semester from the department of Electronics & Communication Engineering were its participants. The Guest Lecture was presided by **Dr. V.Suresh Babu**, Advisor, MVJCE and **Dr. A C Niranjanappa**, Dean - Research, MVJCE. The main objective of the session is to get an exposure about the new opportunities arising due to the emerging technologies in fields of VLSI -FPGA101.

Objective of the Event: The main objective of this event is to understand as technology continues to evolve rapidly; businesses and individuals are constantly adapting to stay competitive. This session focuses on key areas of innovation, including VLSI, FPGA, Industry Use cases & FPGA 101 types. FPGA 101 is reshaping the way businesses operate and deliver services. Staying abreast of these technological developments is crucial for organizations looking to remain competitive and capitalize on the opportunities presented by the ever-evolving digital landscape.



Dr. V. Suresh Babu, Advisor, MVJCE presenting bouquet to the Chief Guest

The event started at 10.30 am with a welcome speech and guest introduction. Mr. Ritesh Belgudri, FPGA Applications Engineer, Altera, Bangalore took over the session on key components, Basics of VLSI & FPGA 101, challenges, and advancements in FPGA based design systems. The Guest Lecture on FPGA 101 provided invaluable insights into the fundamental components, challenges, and advancements within FPGA technology. During the lecture, Mr. Ritesh emphasized the key components of FPGA 101, including process flow, internal structure, Architecture of FPGA 101. This foundational knowledge laid the groundwork for comprehending the intricacies of FPGA 101. Furthermore, the lecture highlighted the challenges impeding the widespread adoption of FPGA 101 Architecture technology.

He highlighted significant hurdles, including the availability of FPGA manufacturing units across the country, drawing attention to the obstacles that researchers and manufacturers are working to overcome. Notably, he also highlighted remarkable advancements that have effectively tackled these challenges.

The event proved to be a platform for students and faculty members to expand their understanding of FPGA 101 technology, inspiring further exploration, and research in this vital domain. The knowledge gained from the lecture contributes to the advancement and widespread implementation of FPGA based systems in diverse applications.

We extend our sincere gratitude to Mr. Ritesh for generously sharing his expertise and enriching our understanding of FPGA technology. His valuable insights have undoubtedly propelled us forward in this field of study.



Students Attentively listening to Guest lecture

Finally, the participants were asked Q&A and shared their experience of the whole session. The session concluded on a happy note.

Outcome of the Event:

The students understood that innovation in emerging technologies is driving significant advancements in VLSI FPGA industries. Students felt that all the topics discussed were important for their growth.

The students were able to:

- Understand the basic Architecture, functional process of FPGA 101 technology.
- Understand the current advancements in FPGA 101 incorporated with the industry needs.
- Explore the subject and benefit with theoretical alongside practical inputs.