

Exploring the Future of Semiconductor Technology: Insights from SEMICON India 2023

On 02/08/2023, a session was delivered to students of Government Engineering College Valsad on “Exploring the Future of Semiconductor Technology: Insights from SEMICON India 2023” by Dr. K. L. Mokariya, Head of the Department, Electrical Engineering, Prof. D. N. Tandel and Prof. N. I. Patel Assistant Professor, Electrical Engineering.

The objective of the session was to provide attendees with valuable insights and knowledge about the future of semiconductor technology. The session aimed



to inform participants about the latest advancements in semiconductor process technologies, including smaller process nodes and advanced lithography techniques. Educate them about the growing importance of AI and ML in the semiconductor industry and its impact on chip design and energy efficiency; explore the role of semiconductor technology in enabling

IoT and its potential applications in various industries.

Address the challenges and opportunities in talent acquisition and workforce development to ensure a skilled and diverse workforce for the future of the semiconductor industry.

Session started with by Head of the Department, Electrical Engineering Department Dr. K. L. Mokariya. Dr. K. L. Mokariya has discussed on valuation of the

electronics industry and growing electronics market. He has given the insight on increasing technologies including 5G, IoT, Artificial Intelligence, Robotics, Smart Mobility, Smart Manufacturing, etc. Further he discussed about vision of National Policy on Electronics 2019 (NPE 2019) and it is to position India as a global hub for Electronics System Design and Manufacturing (ESDM) and create an enabling environment for the industry to compete globally. He also talked about context and objectives of semicon India 2023, The ISM was launched in 2021 under the aegis of the Ministry of Electronics and IT (MeitY) as a comprehensive program for the development of sustainable semiconductor and display ecosystem in India. He further discussed why india needs semiconductor Industry, Semiconductor Laboratories, Semiconductor technologies, Modified Programme for Semiconductors and Display Fab Ecosystem, Modified Programme for development of Semiconductors and Display manufacturing schemes in India.

Prof. D. N. Tandel initiated the session by delving into semiconductor manufacturing technologies, Furthermore he shed light on the growing importance of networking with industries within



the semiconductor ecosystem. Prof. D. N. Tandel focused on microcontrollers, a crucial component in the semiconductor industry, and provided valuable insights into their significance and applications.

Prof. N. I. Patel provided attendees with a holistic understanding of the key factors driving the future of semiconductor technology. He discussed on the demonstration of development boards and a prototype on artificial intelligence at semicon india 2023. The session likely left participants with valuable takeaways on how collaboration and technological



advancements are shaping the semiconductor industry's landscape and fostering its growth and development.

Total 71 students have participated in the session from Electrical Engineering, Mechanical Engineering and Civil Engineering departments. Students actively engaged and acquired valuable insights into the latest advancements in semiconductor technology and its diverse applications across various industries.