

MAHARAJA SURAJMAL INSTITUTE of TECHNOLOGY

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DEPARTMENT OF E.C.E

WORKSHOP REPORT: TWO DAYS NATIONAL WORKSHOP ON FABRICATION OF SEMICONDUCTOR DEVICES AND CIRCUITS

Event Name: *Fabrication of Semiconductor Devices and Circuits (In Hindi Language)*

Date: 20th September - 21st September 2024

Venue: SRM Institute of Science and Technology, Delhi NCR Campus, Modinagar, Ghaziabad, Uttar Pradesh

Report:

Two Days National Workshop on Fabrication of Semiconductor Devices and Circuits, organized by the Department of Electronics and Communication Engineering (ECE) at SRM Institute of Science and Technology, was held on 20th and 21st September 2024. Sponsored by *AICTE-Vibrant Advocacy for Advancement and Nurturing of Indian Languages (AICTE-VAANI)*, the workshop aimed to facilitate the dissemination of knowledge on semiconductor fabrication and circuit integration, with a special emphasis on delivering the content in Hindi.

Day 1: 20th September 2024

The workshop was inaugurated by **Mr. Varun Bhatia**, Vice President of Projects and Learning Solutions at the Electronic Sector Skills Council of India, Ministry of Electronics and Information Technology (MEIT), Delhi. In his keynote address, Mr. Bhatia emphasized the critical role of semiconductor technologies in India's growing digital economy.

The first session, conducted by **Dr. Baljit Kaur** from the National Institute of Technology (NIT), Delhi, focused on *Recent Trends in State of the Art of CMOS Devices at Nanometer Technologies*. This session offered an in-depth analysis of CMOS technology advancements and the impact of nanotechnology on semiconductor devices.

The second session, led by **Mr. Sparsh Jindal** from Truechip Solutions, Noida, highlighted *The Future of Fabless in India*. Mr. Jindal outlined the strategic importance of fabless manufacturing in India's semiconductor industry and discussed potential growth areas.

The final session of the day, presented by **Dr. Priyanka Jain** from Delhi Technological University, explored *Nanomaterials for Next-Gen Electronics: Synthesis and Integration*. Dr. Jain provided insights into the synthesis processes and integration challenges of nanomaterials in modern electronics.

Day 2: 21st September 2024

Day two commenced with **Dr. Rashmi Gupta**, Professor at Netaji Subhas University of Technology, discussing the *Role of AI in VLSI Design Technology*. Her session elaborated on the integration of artificial intelligence in streamlining VLSI design processes.

The second session, by **Dr. Bhawna Aggarwal** from the same institution, covered *Cutting-Edge Analog Circuitry: Innovations and Future Directions*. Dr. Aggarwal's presentation focused on the innovations in analog circuit design and their implications for future technologies.

In the third session, **Dr. Tanmoy Das** from NXP Semiconductors gave an overview of *SoC Architecture & Design Flow*, providing detailed insights into System-on-Chip (SoC) architecture and modern design workflows.

The workshop concluded with **Dr. Subhasis Haldar** from Motilal Nehru College, Delhi University, discussing *The Development of Microelectronics Device Modeling*. His session focused on the evolution and current trends in microelectronics device modeling.

The workshop successfully provided a comprehensive overview of the latest trends and challenges in semiconductor fabrication and circuit integration. It created a platform for intellectual exchange between academia and industry, offering participants the opportunity to engage with experts and enhance their understanding of emerging technologies in the semiconductor field.

Snapshots from the event:





