

3-Day Workshop on "Semiconductor design and development" at AVPTI College DIC-SPOKE, Rajkot

DATE: 27/01/2025 to 29/01/2025

Program Coordinator:

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Report Summary:

The **3-Day Workshop on "Semiconductor Design and Development"** was organized at AVPTI College DIC-SPOKE, Rajkot, from **January 30, 2025, to February 1, 2025**. The workshop aimed to provide participants with a comprehensive understanding of **semiconductor fabrication, chip design, and development techniques**. The event brought together **industry experts, academicians, and students** to explore the latest advancements in semiconductor technology.

Workshop Objectives:

- To introduce participants to semiconductor fundamentals and chip design.
- To provide hands-on experience with semiconductor design tools.
- To discuss the latest trends and research in semiconductor technology.
- To bridge the gap between academia and industry in semiconductor development.

Workshop Content:

Day 1: January 27, 2025

- **Inaugural Session**
 - Welcome speech by **P.P.Kotak (Principal AVPTI)** and **K.G.Maradiya (Principal GEC Rajkot)**
 - Keynote address by **Industry Expert's** from **e infochip**
 - Overview of the workshop objectives.

- **Session 1: Basics of Semiconductor Physics**
 - Introduction to semiconductors and materials.
 - P-N junction theory and MOSFET fundamentals.
- **Session 2: Semiconductor Fabrication Process**
 - Lithography, doping, and etching techniques.
 - Cleanroom processes and IC fabrication overview.

Expert Team for Day-1

- 1) Mr. Chintan Panchal (ASIC director)
- 2) Dr. Jignesh Patadia (E-Enfochip)
- 3) Mr. Marmik Bhatt (Montech Technologies)

Day 2: January 28, 2025

- **Session 3: VLSI Design and Chip Architecture**
 - Overview of **VLSI (Very Large Scale Integration) technology**.
 - CMOS circuit design principles.
- **Industry Expert Talk**
 - Topic: "Future Trends in Semiconductor Industry and Career Opportunities".

Expert Team for Day-2

1. Mr. Jay Gorasiya (Einfochips)
2. Mr. Dhaval Fichadiya (Einfochips)
3. Mr. Sunil Bhatt (Intel-Malesia)

Day 3: January 29, 2025

- **Session 4: Advanced Semiconductor Technologies**
 - Emerging technologies in semiconductor design.
 - **AI and IoT in semiconductor development.**
- **Panel Discussion & Q&A**
 - **Speakers from industry and academia** discussed challenges in the semiconductor sector.

Expert Team for Day-3

1. Dr. Dipesh Panchal (Einfochips)
2. Dr. Jayesh Munjani (Einfochips)

- **Project Demonstration & Certificate Distribution**

- Participants presented their semiconductor design projects.
- **Certificates** were distributed to all participants.

Workshop Outcomes:

- ✓ Gained hands-on experience in semiconductor design software.
- ✓ Learned about VLSI design, IC fabrication, and chip development.
- ✓ Understood the real-world applications and career scope in semiconductors.
- ✓ Interacted with industry experts and academic professionals.

Workshop Evaluation:

- **Participant Feedback:** Positive feedback was received from participants regarding the workshop content, instructor, and overall experience.
- **Instructor Evaluation:** The instructor was evaluated positively for their knowledge, teaching skills, and ability to engage participants.

Conclusion:

The 3-Day Workshop on "Semiconductor Design and Development" at AVPTI College DIC-SPOKE, Rajkot, was a great success. It provided students and professionals with valuable knowledge and hands-on experience in semiconductor technology. The workshop received positive feedback, and future sessions with more advanced topics and real-world case studies are planned.

Additional Information:

- **Workshop Dates:** 27/01/2025 to 29/01/2025
- **Number of Participants:**65
- **Workshop Materials:** PPT and important pdf
- **Photographs:**





Feedback & Suggestions

✓ Positive Aspects:

- Excellent content delivery by experts.
- Well-structured hands-on training sessions.
- Availability of advanced tools and resources.

✓ **Areas of Improvement:**

- Participants suggested extending the duration for deeper exploration of topics.
- More real-world case studies could be included.