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Department of Electronics Engineering (VLSI Design and Technology)

Report on the Club Activity "Emerging Ideas on Chip Design"

The department of **Electronics Engineering (VLSI Design and Technology)** conducted an Add on Lecture titled **"Emerging Ideas on Chip Design"** on **25-05-2026** at **1:00 PM to 3:30 PM**, in **Seminar Hall 2**.

Objectives of the Event

The primary objectives of the event are to:

- Encourage innovative thinking and idea generation in the field of chip design and semiconductor technology.
- Provide a platform for students to showcase emerging concepts in VLSI and related domains.
- Enhance technical knowledge, analytical abilities, and presentation skills.
- Exposure of students to current industry trends and advances in integrated circuit design.
- Foster research-oriented learning, collaboration, and problem-solving skills among students.

Event Overview

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The Department of Electronics Engineering (VLSI Design and Technology), MVJ College of Engineering, organized a club activity titled "Emerging Ideas on Chip Design" under the ChipCrafters Club on 25 May 2026 at Seminar Hall 2, MVJCE. The event aimed to encourage students to explore innovative concepts and emerging technologies in VLSI and semiconductor device design.

The activity was conducted in two rounds. The first round involved abstract submission, followed by an online discussion session for shortlisted teams. The final

round consisted of an Ideathon, where 14 participants presented innovative ideas addressing contemporary challenges in chip design. The presentations covered key areas including Digital IC Design, Analog IC Systems, Design Verification, IC Testing, IC Fabrication, and AI in VLSI.

The event witnessed enthusiastic participation from students across various semesters, providing a platform to showcase technical knowledge, creativity, teamwork, and problem-solving skills. **Rahul Vishal**, an industry expert at Radiant Semiconductors**,** with nearly 25 years of experience in the VLSI domain, evaluated the presentations. The judge provided valuable feedback and insight on current trends in the semiconductor industry.

The team comprising Ansika Pal R, Gifta, Hritvi, and Leela secured the First Prize for their presentation titled "Breaking the Wall: Computing at the Speed of Light." Their innovative proposal on Silicon Photonics and optical interconnects demonstrated a promising solution to overcome the limitations of conventional copper-based communication in chips, enabling higher bandwidth and energy-efficient computing for future AI and high-performance computing applications. The team was awarded a cash prize of Rs 1000.

The Second Prize was awarded to Nimishasri Ravalli V, Deepashree M, and Divyashree M for their presentation titled "Performance and Reliability Co-Design of 3 nm FinFET vs GAAFET Standard Cells." Their work focused on comparing FinFET and GAAFET technologies at advanced technology nodes while incorporating AI-based techniques to predict reliability degradation, highlighting the importance of semiconductor design. The team received a cash prize of Rs 500.

The event concluded with the distribution of participation certificates to all finalist teams and participants. The prize distribution and certificate presentation ceremony marked the completion of the activity, inspiring students to pursue innovation, research, and advanced learning in VLSI technologies.

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Figure 1: Students participating in the Ideathon competition

Club Activity Session

Day	Time	Session Details
Monday, May 25, 2026	1.00–3.30 pm	Club Activity

Table 1: Schedule of the Event

Figure 2: The team that won the 1st prize in the Ideathon competition

Figure 3: The team that won the 2nd prize in the Ideathon competition

Figure 4: The other teams that participated in the Ideathon competition

Outcomes and Impact

- Enhanced student understanding of emerging trends and technologies in VLSI and chip design.
- Encouraged innovative thinking and the development of industry-oriented solutions.
- Improved technical presentation, communication, and teamwork skills.

- Developed interest in research, innovation, and advanced semiconductor technologies.
- Strengthened industry-academia interaction through expert evaluation and valuable feedback from industry professionals.

Conclusions

The "Emerging Ideas on Chip Design" club activity fostered innovation, technical excellence, and research-oriented thinking among students, with valuable guidance and evaluation from industry expert Rahul Vishal, Radiant Semiconductors, providing participants with exposure to emerging trends and industry-relevant solutions in VLSI design.

Report by: Suhas S

Affiliation: Faculty in the Department of VLSI Design and Technology.

MVJ College of Engineering