I.   **Title of the Event:** Generational Transformations in VLSI Engineering

II.   **Program Theme:** Innovation & Design Thinking

III. **Date & Time:** 3rd October 2024 | 10:00 AM onwards

IV.   **Event Coordinators:** Prof. (Dr.) Tribeni Prasad Banerjee, Prof. (Dr.) Aloke Saha, Dr. Debipriya Datta

V.   **Number of Student Participants:** 54

VI.   **Number of Faculty Participants:** 7

VII. **Number of External Participants, if any:** N/A

VIII. **Expenditure Amount, If any:** 4500/-

IX.   **Mode of Session delivery:** Offline

X.   **Speaker details, If any (50-100 words):** The seminar was conducted by Shri. Ayan Dutta, Technologist at Western Digital & Chair of IEEE CAS Bangalore Chapter. With vast expertise in VLSI design, semiconductor advancements, and emerging industry trends, Shri. Dutta shared insights into the generational evolution of VLSI engineering. He highlighted the growing importance of innovation and adaptability in the field, emphasizing how professionals and students must stay updated with industry advancements to remain at the forefront of technology.

XI.   **Objective of the event (100-150 words):** The primary objective of the seminar was to educate students and faculty members on the evolving landscape of VLSI engineering, highlighting how generational transformations in semiconductor design and manufacturing are shaping modern technology.

The event aimed to:

- Provide a clear understanding of the historical and future trends in VLSI engineering.

- Introduce students to the latest tools, methodologies, and industry demands in semiconductor technology.

- Highlight the significance of innovation and design thinking in modern VLSI advancements.

- Encourage students to pursue careers in semiconductor engineering, research, and innovation.
  By engaging with an industry expert, participants were exposed to real-world applications, challenges, and opportunities in the domain of VLSI.

XII. **Benefit in terms of learning/ Skill/ Knowledge obtained (150-200 words):** The seminar provided valuable learning experiences, equipping participants with knowledge and skills in:

- Understanding generational shifts in VLSI technology, from traditional chip design to advanced nanoelectronics.

- Gaining exposure to modern semiconductor design tools, which are essential for research and industry applications.

- Learning about current challenges in VLSI fabrication, power efficiency, and miniaturization.

- Developing problem-solving and analytical skills necessary for designing efficient semiconductor circuits.

- Understanding how innovation and design thinking play a crucial role in the evolution of microprocessor and FPGA technology.

The event was highly interactive, with students actively participating in discussions regarding career opportunities, industry demands, and cutting-edge research areas in VLSI.

XIII. **Feedback received from the guest/ participants:** Yes

XIV. **Remarks, if any (50-100 words):** The seminar successfully enhanced awareness, skill development, and industry readiness among students in the domain of VLSI technology and semiconductor engineering.

XV. **Poster or Banner of the event:**

XVI. Photographs (5 (max) for offline or screenshots for online):