Report- "India Semiconductor Mission"

The program was organized by S.O.S. in Electronics & Photonics and Institute of Renewable Energy Technology & Management in association with Indian Society for VLSI Education, Ranchi under the aegis of Public Outreach Centre on 14th July, 2023. The program started with the welcome address of Head of Department Dr. Kavita Thakur; she informed about the shared mission of program to drive innovation. Dr. Kavita informed students about ongoing research activities at global level and the efforts made by government of India to boost India's semiconductor market. She concluded her speech by elaborating how the MoU can be proven as Academia Industrial Linkage.

Chief guest, Shri Pradeep Sharma, Advisor, State Planning commission shared Chhattisgarh's perspective on semiconductor mission. He motivated the young participants of the workshop to work in fabless integration. He told about steps taken by Chhattisgarh government to encourage the technological advancements in the state and addition of Electronics park in New Raipur. He shared his extreme happiness in the MoU showing vigor of academic institute to align with the efforts of government to add in Chhattisgarh's technological advancements.

The session was continued with address of speaker Dr. Vijay Nath, Professor In charge of VLSI Design Lab and embedded system design lab, Department of ECE, BIT, Mesra, Ranchi. He highlighted the Indian semiconductor mission which is vision of Hon'ble Prime minister Narendra Modi. He also talked about latest tools in VLSI and microelectronics. In future India will be leading in training for designing and production of integrated circuit cards he added and wished ground success to the program in his concluding remarks. The session was continued with address of speaker Dr. Dilip Kumar Yadav, Professor and Head, Department of Computer Applications, NIT Jamshedpur (Jharkhand) about development and manufacturing of ICs. He also discussed about exponential growth in software and the challenges in supporting hardware. He hopes to educate manpower of Chhattisgarh to manufacture and design Integrated chips.

The distinguished representatives from both organizations signed the MOU. On behalf of Pt. Ravishankar Shukla University, Dr. Shailendra Patel sir, Registrar, Pt. Ravishankar Shukla University, Raipur. And representing the Indian Society for VLSI Education Ranchi, Dr. D. K. Yadav sir, Professor at National institute of technology Jamshedpur and president of ISVE Ranchi.

Further, Honorable Vice Chancellor Professor Sacchidananda Shukla extended his warm welcome to the speakers. In his address he expressed how this MoU is related to the future of the department of Electronics and Photonics and its academic linkage. He expressed his the idea of initiating an M.Tech program in VLSI in the upcoming years. He appreciated the energy in ambience of S.O.S. in Electronics & Photonics which displays the legacy and the quality of education. He motivated students to learn more and consider their teachers as mentors and follow a two-way communication strategy. He conveyed that through this MoU the institute might host an annual convention in near future. In the end he congratulated to the head of the department Dr. Kavita Thakur for great start of the program.

Dr. Prof. Kallol Ghosh, Coordinator, Public Outreach Center appreciated the program and congratulated the department for the successful conduction of the program.

The technical session 1 which was initiated by Dr. Vijay Nath in which he talked about "Chip design and India's Semiconductor Mission". He highlighted the objective of mission and challenges faced by India in manufacturing semiconductor chips. He floated the idea of
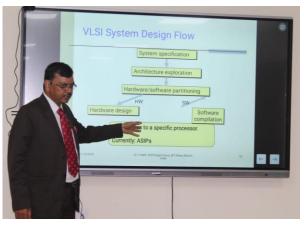
swadeshi semiconductor and informed students about the upcoming opportunity of 5 million jobs till 2025 in different sectors of electronics.

In session 2, Dr. D K Yadav, Professor and Head, Department of Computer Applications, NIT Jamshedpur (Jharkhand) talked about application of AI ML in India Semiconductor mission. he explained the Costs for chip design and fab construction have soared as chips become increasingly complex and the revolution in Artificial Intelligence technology and its application that comes as a rescue to the semiconductor industry providing it the greatest opportunity in the current time to create values of the kind it has had in the previous decades and discussed how India's Semiconductor Dream has an AI's vision.

In session 3, Dr. Anand Kumar Thakur, Assistant Professor, Department of Zoology, University of Ranchi, explained the Application of VLSI in Bio-Engineering. He enlightened participants about the field of bioengineering and role of bio engineers. He shared

Bioengineering examples for better understanding. He talked about Different Fields of Bioscience where VLSI work.

In the end of the program. Dr. Sunandan extended the vote of thanks to the speakers, sponsors and participants.

For the ceremony Dr. Sunandan, Mr. Madhu, Mr. Anil, Mr. Mohnish, Ms. Ayushi, Ms. Neha from S.O.S. in Electronics & Photonics, and Mr. G S Rathore, Ms. Ankita, Ms. Ayushi and Mr. Ankur, from Institute of RETM were present.