

ABOUT VELLORE INSTITUTE OF TECHNOLOGY (VIT)

VIT was established in 1984 as a self-financing institution called the Vellore Engineering College under Section 3 of the University Grants Commission (UGC) Act, 1956 by Dr. G. Viswanathan, a former parliamentarian and a profound minister in Tamil Nadu Government. VIT has made a mark in the field of higher education in India by providing quality education on par with institutions of international standards, through its 38 years of existence in a cross-cultural ambience with extensive application-oriented research. Since then, the institution has grown from strength to strength. Conferred upon the status of Deemed to be university in 2001 by MHRD, VIT currently offers UG, PG and Research programmes on its four campuses at Vellore, Chennai, Bhopal and Amravati.

VIT Chennai was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. Our Memorandum of Understanding (MOU) with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. It was established in 2010 and is ably spearheaded by Dr. Sankar Viswanathan, Dr. Sekar Viswanathan, and Mr. G. V. Selvam as the Vice-Presidents; Ms. Kadhambari S. Viswanathan as the Assistant Vice President; Prof. (Dr.) V. S. Kanchana Bhaaskaran as the Vice Chancellor of VIT & Pro-Vice Chancellor of VIT Chennai.

ABOUT SCHOOL OF ELECTRONICS ENGINEERING (SENSE)

The School of Electronics Engineering (SENSE) at VIT Chennai was established for imparting state-of-the-art education, training and research in the field of Electronics & Communication Engineering and allied areas. The school offers two B.Tech programmes, one in Electronics and Communication Engineering and the other in Electronics and Computer Engineering. It also offers two M.Tech programmes, one in Embedded Systems and the other in VLSI Design. In addition, Ph.D. research programme is offered in the areas of Electronics, Communication and Computer Engineering and their allied fields. The school has modern state-of-the-art laboratories in the areas of Semiconductor Devices, Micro and Nano Devices, Analog Circuit Design, Digital System Design, Digital Signal Processing, Embedded Systems and Architecture, Microprocessors and Microcontrollers, Communication Engineering, Wireless Technologies, Internet of Things (IoT), Microwave and Optical Communication, Computer Networks and Advanced VLSI Design.

OBJECTIVES OF THE PROGRAMME

- To avail the insights on modern designs of power devices, circuits and systems.
- To know about the industrial system applications, their challenges & solutions.
- To understand the different aspects of device-circuit co-design.
- To know about the emerging design trends of devices & circuits in the era of Nanotechnology.



A FIVE-DAY ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

Exploring the modern Circuits, Devices, and Systems Designs in Nanotechnology

From 1st to 5th April 2024

Organized by

School of Electronics Engineering (SENSE),
Vellore Institute of Technology (VIT), Chennai

In association with



Coordinators: **Dr. Pritam Bhattacharjee**

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Time	9:00-11:00	11:30-13:30	13:35-14:25	14:30-16:30
1 st April 2024	Topic: Industrial Applications of Power Converters: Linear and Switching Voltage Regulator: Circuits, Control and Application Speaker: Dr. Subhransu Padhee, Assistant Professor, Sambalpur University	Topic: The frontier of next-generation semiconductor devices and their expansive applications in diverse sectors Speaker: Dr. Biswajit Jena, Assistant Professor, Vellore Institute of Technology, Chennai	Lunch Break	Topic: Physics of Spintronic Materials and Devices Speaker: Dr. Debajit Deb, Assistant Professor, K L University, Andhra Pradesh
2 nd April 2024	Topic: Approximate Computing – New Era of Hardware Speaker: Dr. Durgesh Nandan, Assistant Professor, Symbiosis Institute of Technology, Pune	Topic: Design and Features of Temperature Sensors Speaker: Dr. Abir J Mondal, Assistant Professor, National Institute of Technology, Arunachal Pradesh		Topic: Perovskite materials and assessment of its photovoltaic performance using SCAPS 1D Speaker: Dr. Deboraj Muchahary, Assistant Professor, National Institute of Technology, Raipur
3 rd April 2024	Topic: Internet of Nanothings (IoNT): A Made in India Perspective Towards Nanotechnology Speaker: Dr. Sarfraz Hussain, Assistant Professor, REVA UNIVERSITY, Bangalore	Topic: Development of indoor/outdoor photovoltaics for switching applications Speaker: Dr. Jitendra Bahadur, Assistant Professor, Amrita Vishwa Vidyapeetham, Bangalore		Topic: Efficient Design of Neural Front-End Amplifiers: Overcoming Trade-offs through Advanced Optimization Techniques Speaker: Dr. Swagata Devi, Assistant Professor, Assam Down Town University
4 th April 2024	Topic: Effect of compositional engineering on perovskite semiconductors and perovskite solar cells Speaker: Dr. Paramita Sarkar, Assistant Professor, BMS Institute of Technology and Management, Bangalore	Topic: Innovations in Solution Processable Nano-Electronic Devices Speaker: Dr. Anwesha Choudhury, Assistant Professor, REVA UNIVERSITY, Bangalore		Topic: Adaptive Power Gating for Power Management Speaker: Dr. Alak Majumder, Assistant Professor, National Institute of Technology, Arunachal Pradesh
5 th April 2024	Topic: Quantum Circuits Speaker: Dr. Reena Monica P, Professor, Vellore Institute of Technology, Chennai	Topic: Glancing angle deposition technique for fabricating Nanodevices for various applications Speaker: Dr. Prasenjit Deb, Assistant Professor, REVA UNIVERSITY, Bangalore		Topic: g_m/i_d -based design methodology for CMOS analog IC design Speaker: Dr. Lakshmi N S, Assistant Professor, Indian Institute of Information Technology, Kottayam

Target Audience: Faculty Members; Industry persons, Engineers from R&D organizations; Early career researchers

Registration Fees: Free (for VITians), Rs. 150/- (for non-VITians).