

# AICTE Sponsored Short Term Training Program (STTP) on Emerging Issues in VLSI Design

STTP-I	12. 07. 2021 - 17. 07. 2021
STTP-II	06. 09. 2021 - 11. 09. 2021
STTP-III	22. 11. 2021 - 27. 11. 2021
STTP-IV	13. 12. 2021 - 18. 12. 2021

## Registration Form

Name: .....

Designation: .....

Organization: .....

Correspondence Address: .....

PIN Code: .....

Phone: .....

E-mail: .....

Whatsapp Mobile No: .....

Category: Academic/Industry/Others

Signature of the Participant: .....

Date: .....

Place: .....

Participants need to fill this registration form and upload the scanned copy in PDF format in the below registration link. Registration Link Last Date for Registration: on or before **5th July 2021**

<http://shorturl.at/jpsyS>

### ELIGIBILITY & REGISTRATION:

No registration fee. The Faculty members, research scholars, PG students of AICTE approved Engineering Colleges and Polytechnics working in the field of VLSI are eligible to apply. Admissions will be offered subject to the availability on a first-come, first-served basis & area of specialization with a maximum attendance of 100

**MODE OF CONDUCTION:** Online Mode –4 times as per the dates announced, on the same theme but with different audience. Online meeting link will be sent through Whatsapp and registered email. Since Hands on sessions will be conducted using CAD tools, all the participants are informed to get ready with their systems (System Configuration Details)

### CERTIFICATION:

E-Certificates will be issued to those participants who attend all the sessions of the programme and clear the online exam as per the norms stipulated by the AICTE.

### CHIEF PATRONS:

**Shri Ramashankar Singh**, Founder Chancellor, ITM University Gwalior

### PATRONS:

**Smt. Ruchi Singh Chauhan**, Chancellor, ITM University Gwalior

**Smt. Kanupriya Singh Rathore**, President, ITM (SLS) Baroda University, Vadodara  
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**Prof. (Dr.) S.S. Bhakar**, Vice Chancellor, ITM University Gwalior

**Prof. (Dr.) Santosh Kishan Narayankhedkar**, Pro Vice Chancellor, ITM University Gwalior

**Dr. Meenakshi Mazumdar**, Director, ITM, Gwalior

**Dr. Omveer Singh**, Registrar, ITM University Gwalior

### CONVENER:

Prof. Ranjeet Singh Tomar, Professor and Head, Dept. of Electronics & Communications Engineering, School of Engineering & Technology.

### COORDINATOR:

Prof. Shyam Akashe, Professor, Dept. of Electronics & Communications Engineering, School of Engineering & Technology

### CO-COORDINATOR:

Dr. Sadhana Mishra, Professor, Dept. of Electronics & Communications Engineering, School of Engineering & Technology

### ORGANIZING COMMITTEE:

Mr. Shilendra Singh Ojha, Assistant Professor, Department of ECE

Mr. Mayank Sharma, Assistant Professor, Department of ECE

Mr. Bhupendra Dhakad, Assistant Professor, Department of ECE

Mr. Abhishek Saxena, Assistant Professor, Department of EE

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Mr. Shushant Kumar Jain, Assistant Professor, Department of EE

Mr. Vineet Shrivastava, Assistant Professor, Department of EE



AICTE Sponsored  
Short Term Training  
Program (STTP)

**STTP-I** July 12-17, 2021

**STTP-II** September 06-11, 2021

**STTP-III** November 22-27, 2021

**STTP-IV** Decmber 13-18, 2021

# EMERGING ISSUES IN VLSI DESIGN



Convener

**Prof. (Dr.) Ranjeet Singh Tomar**

Dept. of Electronics & Communications Engineering

Coordinator

**Prof. (Dr.) Shyam Akashe**

Dept. of Electronics & Communications Engineering

Co-Coordinator

**Dr. Sadhana Mishra**

Dept. of Electronics & Communications Engineering

Organized by: **Department of Electronics & Communications Engineering**  
ITM University Gwalior, N.H-44, Turari, Gwalior (M.P.) -474001, India  
[www.itmuniversity.ac.in](http://www.itmuniversity.ac.in)

### About the ITM University Gwalior

ITM University Gwalior is situated in a picturesque campus spread over 125 acres along the foot hills of Vindhya ranges. The campus is on National Highway-44, which is developed as a four lane 'Express Way' connecting the north & east of India. The main track of Indian Railways connecting Mumbai, Chennai, Hyderabad, Bangalore, Indore and Pune runs along this highway. Gwalior is also connected by Air from Mumbai, Hyderabad, Bangalore, Jammu and Calcutta.

The University is a multidisciplinary University with an aim to foster highest quality teaching and research across the academic spectrum. The University has been crowned with more than 30 awards and ranked 24 times among the best Universities of the country by government and other agencies. The University was ranked 32nd in Management and 58th in Engineering programs respectively by the National Institutional Ranking Framework (NIRF), Ministry of Human Resource Development (MHRD) Government of India in 2016. The University is also accredited by NAAC.

The University is approved by the concerned regulatory bodies of the Govt. of India & the state of Madhya Pradesh, to run courses in Agriculture, Architecture, Arts & Design, Commerce, Computer Applications, Engineering, Fine Arts, Journalism, Law, Management, Nursing, Pharmacy, Physical Education, Sciences, and Teacher Education. The University is at the forefront of learning, teaching & research and is a leader in many different fields. It seeks to sustain and enhance its excellence as an institution of higher learning through outstanding teaching and world class societies it serves.

### ITM School of Engineering & Technology (SOET)

ITM School of Engineering & Technology is one of the flagship and leading schools of central and north India. The School is unique in a way that it tries to assimilate cutting edge ideas in Engineering & Technology through variety of Projects in association with industry. Additionally prominent industries directly contribute in up ticking knowledge and skill sets of students through various augmentation programs customized for ITM University students and through their centre of excellence. A mix of lectures, tutorials, laboratory works, seminars and projects are used to groom conceptual and analytical abilities of students. For 1st time in India Activity Based Continuous Assessment (ABCA)

### About Electronics & Communication Engineering Department

The Department of Electronics & Communications Engineering was established in the year 2011 in ITM University Gwalior. Electronics & Communication Engineering Department also offers B.Tech, B.Tech (Honors), M. Tech (Integrated), Specialized M. Tech programme in VLSI Design and Communication Systems as well as Ph. D. Programme. The B.Tech and M.Tech program has been affiliated by the All India Council for Technical Education (AICTE), New Delhi. Till now three research scholars are awarded with Ph.D. and more are pursuing Ph.D. The department has modernized and well equipped laboratories with state-of-art facilities to cater to the needs of UG and PG courses.

The list of laboratory is available in the department of ECE:

- Basic Electronics Laboratory
- Semiconductor Devices & Electronics Circuits Laboratory
- Digital Electronics Laboratory
- Networks & Systems Laboratory
- Instrumentation and Measurement Laboratory
- Analog & Digital Communication Laboratory
- VLSI Laboratory
- Microprocessor & Microcontroller Laboratory
- Control Systems Laboratory
- Wireless Communication and Networks Laboratory
- Antenna & Wave Propagation Laboratory
- Microwave Laboratory
- TV & Radar Laboratory
- Software Laboratory
- Research Laboratory.

### ABOUT THE STTP

Education in Engineering Colleges and Universities are severely lagging in meeting VLSI Industry specific needs. This creates a big gap between the Industry and the fresh engineering graduates. By conducting a Faculty Development Program, we intend to reduce this gap by training the academia on various features of VLSI System. The main focus of this program is to train the faculty on VLSI Design and VLSI Design Lab courses. This training will also be beneficial to faculty who are teaching VLSI related courses in various PG programmes and who are looking for research opportunities in the field of VLSI.

The objectives of this Short Term Training Program (STTP) are to:

- Integrate a thorough knowledge on fundamentals and latest

trends in VLSI Circuits with their applications.

- Design and analyze the VLSI circuits and systems
- Reframe the concepts of circuit design simulation,
- Layout design, DRC and physical verification etc.

The UG and PG programmes of Electronics and Instrumentation engineering offer various advanced courses in the field of instrumentation. VLSI is very potential area of study where students can be guided to take up projects both at UG and PG level. Hence hands-on training to the Electronics faculty of engineering colleges will make them competent to guide students on good projects/dissertations.

### STTP course contents

- Advanced VLSI Design
- VLSI Device Modeling
- Design and Verification
- Mixed Signal Design
- FinFET Technology
- Memristors
- FPGA based Design & Implementation
- SOC Design
- Challenges in emerging VLSI
- Research areas in VLSI
- Advanced HDLs & Their advantage
- Hands on Lab Sessions
- Hands on EDA tools

### BENEFITS TO THE FACULTY

- Faculty will get trained in the area of Analog and digital VLSI
- Faculty will start guiding meaningful projects to UG and PG students
- Faculty will be introduced to research opportunities

### RESOURCE PERSONS

Eminent faculty from IITs, NITs, IIITs, reputed Universities /colleges and industry experts

Address for communication

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