AICTE Training and Learning (ATAL) Academy
Faculty Development Programme (FDP)
on

Semiconductor Technologies for VLSI, AI and Embedded Systems

REGISTRATION FORM

Name: ……..……..

Designation: ……..

Organization: ……..

Qualification: ……..

Correspondence Address: ……..

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Tel. (O) ..... (M) ……..

E-Mail: ……..

Date: **Place:**

Signature of Candidate

Signature of Principal/HOD

PARTCIPANTS:

The FDP is open to Faculty Members, Research Scholars, PG Students, Scientists, Researchers, and Industry Professionals from AICTE-approved institutions, universities, R&D organizations, and industries across India.

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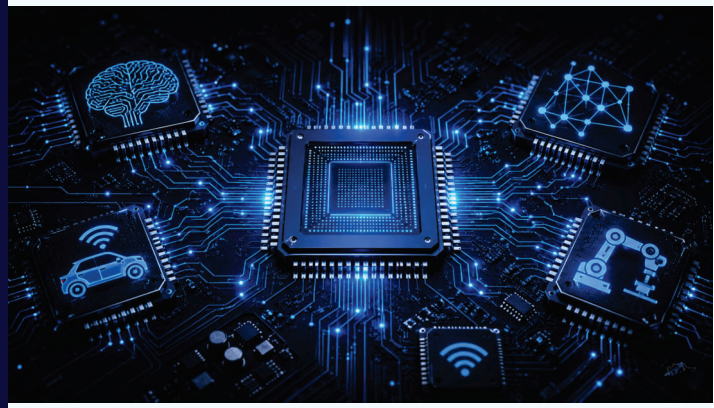
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A part of aisect india
Bhopal, Madhya Pradesh

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Faculty Development Programme (FDP)
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Semiconductor Technologies for VLSI, AI and Embedded Systems

23rd – 28th Nov, 2026

ORGANIZED BY

Department of Electronics and Communication Engineering
University Institute of Science & Technology (UIST)
Rabindranath Tagore University (RNTU)
Bhopal, Madhya Pradesh

ABOUT RABINDRANATH TAGORE UNIVERSITY (RNTU)

Rabindranath Tagore University (RNTU), Bhopal, established under the Rabindranath Tagore University Act and recognized by the University Grants Commission (UGC) under Section 2(f) of the UGC Act, 1956, is a leading multidisciplinary university committed to excellence in education, research, innovation, and skill development. The University offers a wide spectrum of Undergraduate, Postgraduate, Doctoral, and Professional programmes across Engineering, Science, Management, Agriculture, Pharmacy, Law, Humanities, Education, and Allied disciplines.

The University emphasizes outcome-based education, industry-academia collaboration, interdisciplinary research, and innovation-driven learning. Through its state-of-the-art infrastructure, experienced faculty, Centres of Excellence, incubation support, and collaborations with industries, government organizations, and international institutions, RNTU is actively contributing towards the vision of Viksit Bharat 2047 by preparing competent professionals and future technology leaders.

ABOUT UNIVERSITY INSTITUTE OF SCIENCE & TECHNOLOGY (UIST)

The University Institute of Science & Technology (UIST) is the flagship engineering institute of Rabindranath Tagore University. UIST offers quality technical education through Undergraduate, Postgraduate, and Doctoral programmes in various engineering disciplines with a strong emphasis on innovation, research, practical learning, and industry engagement.

The institute provides modern laboratories, smart classrooms, advanced computing facilities, research centres, innovation laboratories, and an ecosystem that encourages multidisciplinary research, entrepreneurship, and technology development. UIST continuously collaborates with industries, research organizations, and professional bodies to enhance academic excellence and prepare students for emerging technological domains.

ABOUT THE DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering (ECE) at UIST is committed to providing quality education and research in Electronics, Communication Engineering, VLSI Design, Embedded Systems, Internet of Things (IoT), Artificial Intelligence, Signal Processing, Wireless Communication, and Semiconductor Technologies.

The department possesses well-equipped laboratories, modern FPGA and Embedded System development platforms, Communication Engineering laboratories, IoT laboratories, and advanced computing resources that facilitate quality teaching, research, consultancy, and innovation. Faculty members are actively engaged in interdisciplinary research, funded projects, industrial consultancy, and technology-driven solutions aligned with the rapidly evolving semiconductor ecosystem.

ABOUT THE FDP

The rapid advancement of Artificial Intelligence (AI), High-Performance Computing (HPC), Internet of Things (IoT), 5G/6G communication, automotive electronics, and smart embedded systems has significantly increased the demand for advanced semiconductor technologies. Recognizing the strategic importance of semiconductors, the Government of India has launched the Semicon India Programme and the India Semiconductor Mission (ISM) to strengthen the country's semiconductor ecosystem and develop a skilled workforce.

The Faculty Development Programme (FDP) on "Semiconductor Technologies for VLSI, AI and Embedded Systems" aims to provide participants with a comprehensive understanding of semiconductor technologies and their applications in modern electronic systems. The programme covers semiconductor devices, CMOS technology, VLSI design, Electronic Design Automation (EDA) tools, ASIC and FPGA design, AI hardware accelerators, embedded systems, semiconductor packaging, testing, and emerging trends in chip design.

The FDP will bring together experts from academia, research organizations, and industry to share recent advancements, best practices, and future research opportunities. It aims to strengthen participants' knowledge, promote innovation, foster academia–industry collaboration, and enhance teaching and research capabilities in the domains of Semiconductor, VLSI, Artificial Intelligence, and Embedded Systems.

OUTCOMES OF THE FDP

Upon successful completion of the Faculty Development Programme, the participants will gain enhanced knowledge of contemporary semiconductor technologies and their applications in VLSI, Artificial Intelligence, and Embedded Systems. The programme is expected to strengthen participants' technical competencies, promote innovation, and encourage research and industry-oriented learning in emerging semiconductor technologies.

The participants will be able to:

a) Gain a comprehensive understanding of semiconductor technologies and their applications in modern electronic systems.

b) Apply contemporary VLSI design methodologies and Electronic Design Automation (EDA) tools for semiconductor design.

c) Understand the integration of semiconductor technologies with Artificial Intelligence (AI) and Embedded Systems.

d) Explore recent advancements in ASIC, FPGA, System-on-Chip (SoC), semiconductor packaging, and testing technologies
.

e) Identify emerging research opportunities and foster innovation in Semiconductor, VLSI, AI, and Embedded Systems.

f) Strengthen teaching, research, curriculum development, and academia–industry collaboration in semiconductor-related domains.

TARGET PARTICIPANTS

The Faculty Development Programme is open to Faculty Members, Research Scholars, PG Students, Scientists, Researchers, and Industry Professionals from AICTE-approved institutions, universities, research organizations, and industries across India. The programme is intended for participants interested in Semiconductor Technologies, VLSI, Artificial Intelligence (AI), and Embedded Systems.

RESOURCE PERSONS

The FDP will feature eminent academicians, researchers, scientists, and industry experts from IITs, NITs, IIITs, IISERs, Central Universities, reputed AICTE-approved institutions, leading research organizations, and semiconductor industries. The programme will include a minimum of 50% experts from industry and at least three (03) overseas experts, providing participants with valuable insights into emerging trends, research, and industrial practices in Semiconductor Technologies, VLSI, Artificial Intelligence (AI), and Embedded Systems.

REGISTRATION & PARTICIPATION

The programme will be conducted in Online Mode through the AICTE ATAL Academy platform. Interested participants are required to register through the AICTE ATAL Academy Portal within the stipulated registration period. Selection of participants will be made as per the AICTE ATAL Academy guidelines.

Registration Fee: Nil (No Registration Fee)

