



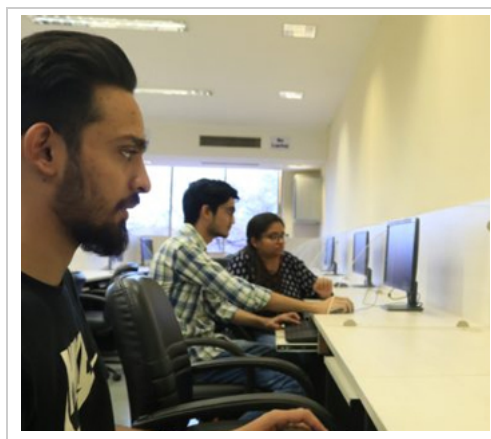
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(/)

M.Tech. (ICT)

Program
Overview

Courses



Master of Technology in Information and Communication Technology – MTech (ICT) is a fulltime two-year (four semesters) program. The program has been specially designed to meet the increasing needs of professionals who would be able to respond to the convergence between computers and communication systems. The program aims to provide exposure to students who wish to build a professional career in ICT, working at the intersection of technology, research, and development in the areas of Machine Learning and applications to speech, image and vision, natural language processing and others, Data Analytics, Cyber Security, Distributed Computing, Software Engineering, Embedded Systems, VLSI Subsystem Design, FPGA, Low-power VLSI Design and Nano electronics.

The Program curriculum includes multiple specializations tracks that provide a strong foundation and advanced courses in each track. This program tries to leverage the strength and diversity of our faculty and currently offers the following specialization tracks:

> **Machine Learning**

(https://www.daiict.ac.in/sites/default/files/other-files/M.Tech._ML_Brochure_2023_0.pdf)

> Software Systems

(https://www.daiict.ac.in/sites/default/files/other-files/M.Tech_-_Software_Systems_2023_O.pdf)

> VLSI and Embedded Systems

(https://www.daiict.ac.in/sites/default/files/other-files/M.Tech_-_VLSI-ES_Brochure_2023.pdf)

The M.Tech. program provides students with a rigorous understanding of both fundamentals and advanced knowledge in desired areas of specialisation. The graduates of the program would be well-positioned to work in the fast-growing ICT industry or to pursue a doctoral degree.

Students of the M.Tech. program are required to complete a set of program core courses, general elective courses, specialization core courses and specialization elective courses. The program structure is designed to allow a wide choice of electives in desired areas of specialisation. Apart from the courses, the students must complete two projects, a minor project in Semester 2 and Major project I spread over the summer semester and semester 3. The project components provide the students an opportunity to undertake directed research work under the supervision of a faculty mentor. In semester 4, a student can opt for Major project II, in continuation with Major project 1, or pursue an internship in the industry. Students interested in a thesis must enrol for Major project II in semester 4.

Each student joining the program will be assigned a faculty advisor who will provide general academic guidance and support to the student.

Programme Outcomes (POs)

PO No.	Program Outcomes
PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first

	principles of mathematics, natural sciences, and engineering sciences
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively

	on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs)


After successful completion of the MTech program students will have:

PSO No.	Program Specific Outcomes (PSOs)
PSO1	To apply the theoretical concepts of computer engineering and practical knowledge in analysis, design and development of computing systems and interdisciplinary applications.
PSO2	To work as a socially responsible professional by applying ICT principles in real-world problems.

Program Outcomes (POs) & Course Outcomes (COs) of The Program
(https://www.daiict.ac.in/sites/default/files/other-files/POs-PSOs-COs_ver2.pdf)

Syllabus of The Program
(<https://www.daiict.ac.in/sites/default/files/other-files/Syllabus.pdf>)

Contact Us

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- › [Staff \(/staff\)](/staff)
- › [Doctoral Scholars \(/doctoral-scholars\)](/doctoral-scholars)

NAAC

- › [SSR & Evaluative Reports Addendum 2017 !\[\]\(ebd6bb7e63799a540c476e56de06a0ed_img.jpg\) \(/sites/default/files/NAAC-Addendum-final.pdf\)](/sites/default/files/NAAC-Addendum-final.pdf)
- › [SSR 2015 !\[\]\(e43afbdc743fd9d9a5a6d3c334ee35c3_img.jpg\) \(/sites/default/files/NAAC-Self-Study-Report.pdf\)](/sites/default/files/NAAC-Self-Study-Report.pdf)
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CoE, Government of Gujarat

- › [Application submitted \(/coe-government-gujarat\)](/coe-government-gujarat)
- › [Audited Accounts \(/coe-government-gujarat\)](/coe-government-gujarat)

› [Meeting of the Governing Bodies \(/coe-government-gujarat\)](#)

NIRF

› [INDIA Ranking 2023 DCS Submitted \(/nirf-national-institutional-ranking-framework\)](#)

Other Links

› [Prof. S.C. Sahasrabudhe - A Memoir \(https://www.daiict.ac.in/prof-sc-sahasrabudhe-memoir\)](#)

› [Holidays 2023 \(/sites/default/files/other-files/Holidays2023.pdf\)](#)

› [Ecampus \(https://ecampus.daiict.ac.in/webapp/intranet/index.jsp\)](#)

› [Intranet \(http://intranet.daiict.ac.in/\)](#)

› [Courses \(https://moodle.daiict.ac.in/\)](#)

› [Capacity Development and Skills Enhancement Initiatives \(/capacity-development-and-skills-enhancement-initiatives\)](#)

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› [DCEI \(http://ceid.daiict.ac.in/\)](#)

› [Proforma for Inspection by UGC \(/sites/default/files/UGCproforma_30Dec2015.pdf\)](#)

› [Committees \(https://www.daiict.ac.in/committees\)](#)

› [Anti-Ragging Committee \(/sites/default/files/other-files/Anti-Ragging_Vigilance-Committee_Faculty-and-Staff_2022-23.pdf\)](#)

› [DA-IICT Lecture Series \(/da-iiict-lecture-series-dls\)](#)

› [Synopsis \(https://instagram.com/synapsedaiict\)](#)

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Group Website

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Last Updated: 19-06-2023

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