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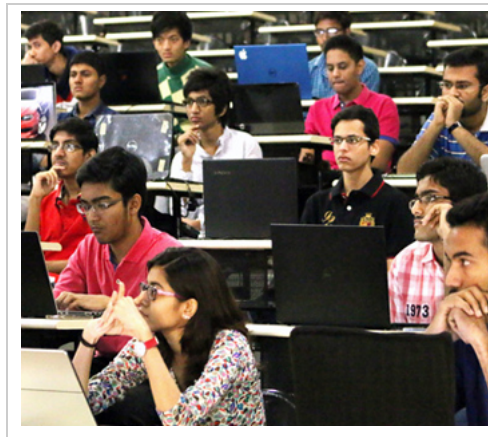
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B.Tech. (MnC)

**Program
Overview**

**B. Tech in Mathematics and
Computing - B.Tech. (MnC)**

**Program
Structure**



Mathematics and Computing (MnC) is a fusion of Mathematics and Computer Science that has obtained wide acceptance as a distinct discipline over the past few years. It arises out of dealing with Mathematics as a fundamental tool in computing and with Computing as a primary component of mathematical problem solving. The program has been specially designed to meet the increasing needs of professionals who would be able to respond to the convergence between mathematical and computational problem solving. The program aims at expanding the mathematical, algorithmic and computational thinking of students and at providing sufficient and solid foundation for skill development in MnC. A strong mathematical foundation would enable the study and analysis of abstract concepts and to model many real life problems mathematically, algorithmic thinking would provide ways to solve these mathematical problems in an automated way and computational thinking would allow for evaluating the efficiency of these solutions.

The program aims to provide exposure to the students who wish to build a professional career in MnC, working at the cutting edge of technology, research and development. On successful completion of the program, the students would have acquired essential theoretical, technical and practical knowledge for solving real-world problems, and will have the ability to demonstrate excellent analytical, logical and problem solving skills. The students would have also acquired social and ethical attributes that would enable them in applying their skills for societal needs with effective communication – orally, in writing and on multi-media platforms.

The program brochure can be found **here**
(<https://www.daiict.ac.in/sites/default/files/other-files/BTech-MnC-Brochure.pdf>).

Program 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.

The Program Specific Outcomes (PSOs) set the following goal:

After the successful completion of the BTech (MnC) program, students will have:

PSO No.	Program Specific Outcomes (PSOs)
PSO1	PSO1: To model computational problems by applying mathematical concepts and solving real-world problems using algorithmic techniques.
PSO2	To apply the mathematical and statistical approaches for analyzing, designing and development of computing systems in interdisciplinary applications.

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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NAAC

- › [SSR & Evaluative Reports Addendum 2017 !\[\]\(e548a391c65118ac2476924cdb5db38c_img.jpg\) \(/sites/default/files/NAAC-Addendum-final.pdf\)](#)
- › [SSR 2015 !\[\]\(6fc1fda334fce799e3b50f6cf68d70a8_img.jpg\) \(/sites/default/files/NAAC-Self-Study-Report.pdf\)](#)
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CoE, Government of Gujarat






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- › [Audited Accounts \(/coe-government-gujarat\)](#)
- › [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 \(https://www.daiict.ac.in/prof-sc-sahasrabudhe-memoir\)](https://www.daiict.ac.in/prof-sc-sahasrabudhe-memoir)
- › [Holidays 2023 !\[\]\(5d60fe8e38bc12bfb78103fc624e324c_img.jpg\) \(/sites/default/files/other-files/Holidays2023.pdf\)](#)
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- › [Capacity Development and Skills Enhancement Initiatives \(/capacity-development-and-skills-enhancement-initiatives\)](#)
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- > **CEP (cep)**
- > **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-iict-lecture-series-dls)**
- > **Synapse**  (<https://instagram.com/synapsedaiict>)
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Group Website


----- Group Websites -----


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Last Updated: 19-06-2023

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