

**Ahmedabad  
University**



## *Master of Technology in Computer Science and Engineering*

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### *Data Science and Analytics*

Ahmedabad University was founded in 2009 by Ahmedabad Education Society (AES), a non-profit 87-year-old foundation. Liberal education, interdisciplinary curriculum, experiential learning, and research define us. We are reimagining the classroom beyond the physical walls and focusing on the whole development of each student in an engaging and nurturing environment.

Being located in the centre of a vibrant and entrepreneurial city, our education is contextually rich and globally connected. Our world-class education attracts 3500 students from across India and the world.

Ahmedabad University has been recognised by the Government of Gujarat as a Centre of Excellence.



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The Master of Technology programme in Computer Science and Engineering with specialisation in Data Science and Analytics is a new interdisciplinary Programme with focus on Data Science and Analytics. It combines applied

mathematics, statistics, computer science, and various business domains with verticals like finance, marketing, energy, supply chain, human resources, agriculture, and e-commerce, among others.

Data Science is an emerging area of work concerned with the collection, preparation, analysis, visualisation, management, and preservation of large collections of information.

It is an interdisciplinary field of scientific methods, processes, algorithms, and systems to extract knowledge or insights from data in various forms, either structured or unstructured. An important skill, Data Science develops the ability to take data, to be able to understand it, to process it, to extract value from it, to visualise it, and to communicate it. A few innovative applications of Data Science are listed below:

- Internet Search
- Digital Advertisements
- Gaming
- Recommender Systems
- Image Recognition
- Speech Recognition
- Price Comparison Websites
- Airline Route Planning
- Fraud and Risk Detection
- Delivery Logistics





## *Data Science and Analytics*

In today's increasingly competitive marketplace, organisations need individuals with skills to transform data from industry and products, customers' behavioural data, and data from experimental research and simulations, into actionable information to support strategic and tactical decision-making. The focus is on how data science and analytics can be used to help decision makers improve organisational competitiveness.

Professionals and students are expected to have hands-on experience with a variety of analytical tools for the purpose of structuring large data sets to unearth hidden information and patterns that are key to the enterprise. Students will also gain experience of using different software tools and functions, including data mining, predictive modelling, and visual analytics using large data sets. Commercial and open-source tools are available to conduct analyses and build prototypes using real-world case studies and data sets.

The fastest-growing roles are those of data scientists and advanced analysts, with demand projected to spike.

Faculty at the School of Engineering and Applied Science are a balanced mix of the highly experienced and the young. They hold doctorate degrees from highly ranked institutions in India and abroad. Several faculty have industry experience which brings industry view points and applications of theory to courses and projects.

The University strongly believes that seminars are integral to the education process. The Campus has a vibrant culture of seminars on a broad range of topics delivered by very eminent persons and scholars from India and abroad.

## Curriculum

The salient features of the curriculum are:

- Strong foundation in advanced topics in computer science and engineering;
- Project-based learning to strengthen advanced concepts of computer science and engineering;
- Depth in Data Science and Analytics, and
- Project with industry connect; and
- One-year research internship.

The School infrastructure includes well-equipped laboratories and computing facilities.

## Admission Procedure

Admission to the Master of Technology Programme in Computer Science and Engineering can be taken via three alternate routes:

Category-A: For graduates from (a) a CFTI (Centrally Funded Technical Institution) under the Ministry of Education of the Govt. of India, viz., IITs, NITs, IISc, IIITs, and IISERs, and others) OR (b) Central University, OR (c) Ahmedabad University. The GATE score is not required. Admission will be on the basis of an Interview.

OR

Category-B: For graduates with a valid GATE score in any one of the GATE subjects of Computer Science and Information Technology (CS)/ Electronics and Communication Engineering (EC)/Electrical Engineering (EE)/Instrumentation Engineering (IN)/ Physics (PH)/Mathematics (MA). Admission will be on the basis of an Interview.

OR

Category-C: For graduates from institutions/universities other than CFTIs (of Category A above) who DO NOT HAVE a valid GATE score, admission will be on the basis of a Written Test followed by an Interview. The test will be conducted by the School of Engineering and Applied Science of Ahmedabad University. This will be a 1-hour online test of multiple choice questions (MCQs). An online link for the test will be sent by email to all the eligible candidates one day before the test date. Candidates successful in the written test, will be required to appear in an Interview after which the admission decision will be made.

The online application process begins on June 7, 2022.

For further details visit:

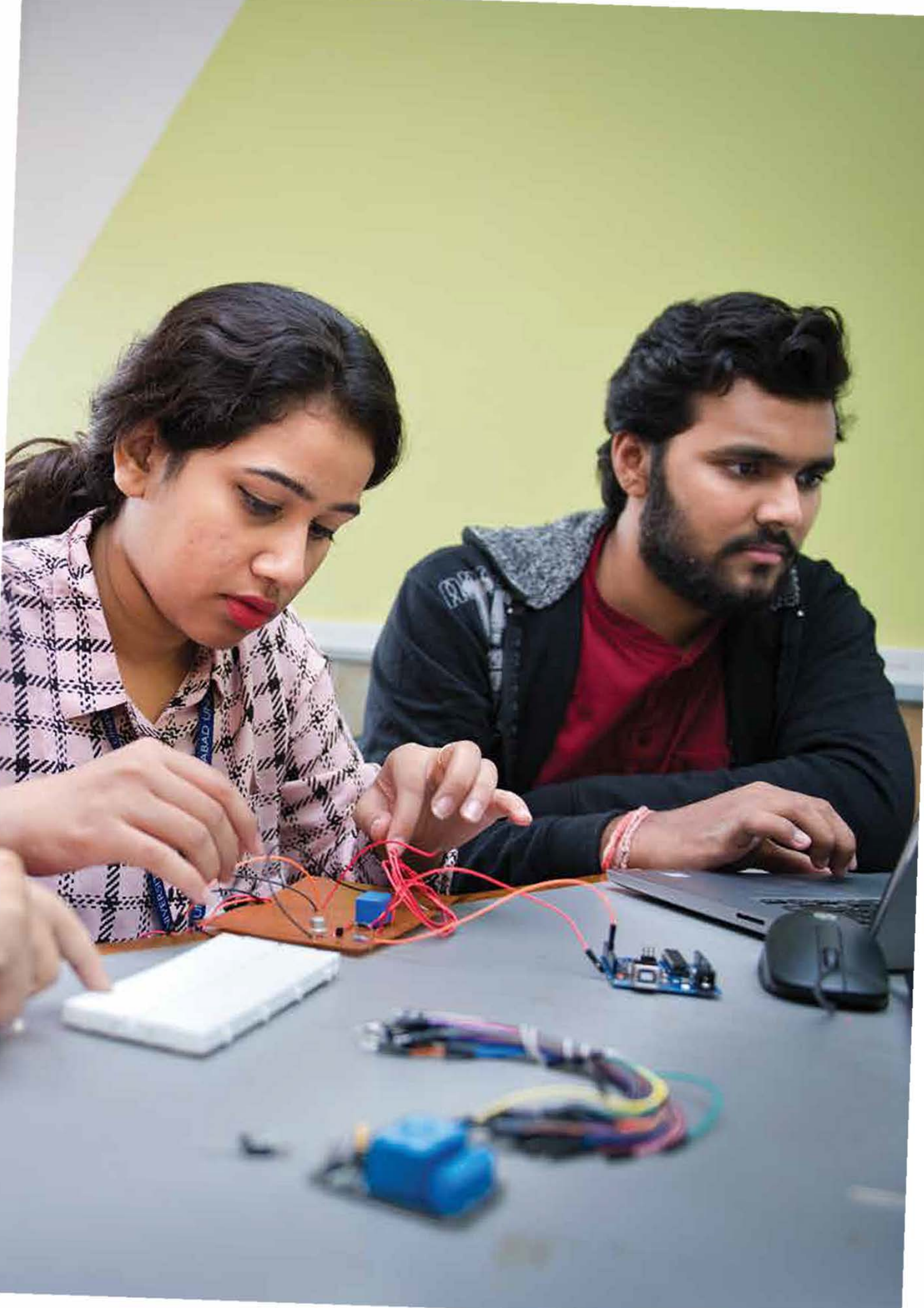
[www.ahduni.edu.in/seas/academics/mtech-programme](http://www.ahduni.edu.in/seas/academics/mtech-programme)

## Eligibility and Admission Criteria

Prospective students should have successfully completed any one of the following programmes:

- Bachelor of Engineering (BE) /Bachelor of Technology (BTech) in CSE / CS / EE / ECE / ICT / IT or equivalent from a recognised university; OR
- Master of Computer Science / Electronics / Physics / Mathematics; OR
- Bachelor of Science (Honours), 4-year duration, with major in Physics, Mathematics, Computer Science, or Statistics; OR
- Master of Computer Applications (MCA).

The aggregate marks in the qualifying degree should be minimum 60% or equivalent cumulative grade point average (CGPA). Candidates appearing for the final semester/ final year may also apply.





### *Co-curricular and extra-curricular activities*

can be pursued through many student-run clubs, such as the Music Club, Debating Club, Management Club, Programming Club, Photography Club, Dance Club, Film Club, and Drama Club, among others.

The University Centre houses student activities, indoor sports facilities, including a gymnasium, a health centre, and a food court.

### *Opportunities and Career Prospects*

During the course of study, there are several opportunities to interact, learn from, and collaborate with highly accomplished researchers and academicians from universities and industries.

Students have the opportunity to pursue their one-year research internship at globally reputed companies and research organisations. Past students have worked at ABB Corporate Research, Coviam, ISRO, and eInfochips, among others. Past graduates have been placed in technology-innovation companies in India.



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**School of Engineering and Applied Science**

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