



ENGINEERS WITH  
SOCIAL RESPONSIBILITY

# MSc. Information Technology

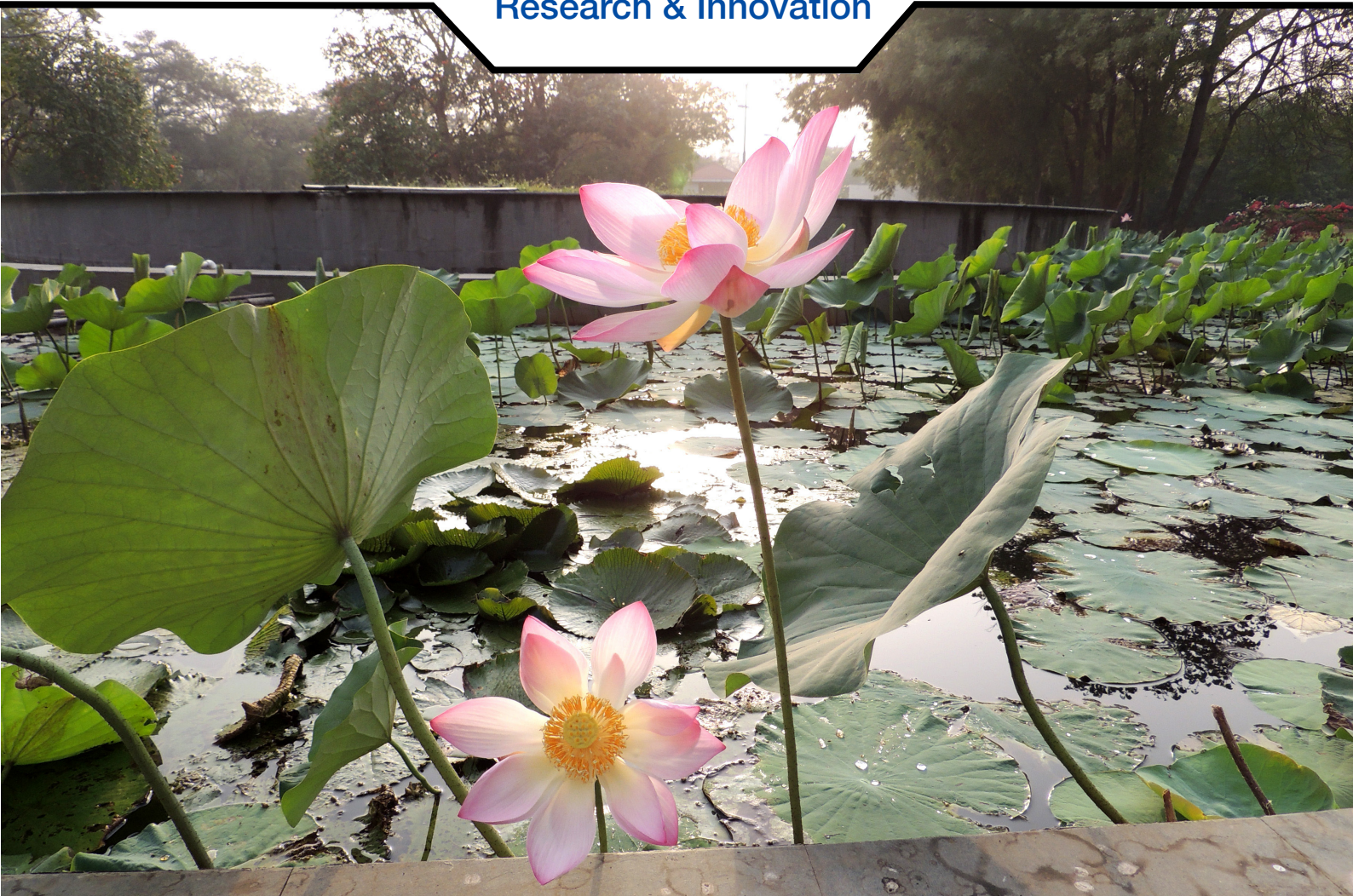


Academics

Service to Society

DA-IICT

Research & Innovation





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# DA-IICT at a Glance

**DA-IICT** was founded in 2000 as a unique university devoted to the cutting-edge interdisciplinary area of Information and Communication Technology (ICT). ICT was emerging as the technology of the future bringing in the fourth Industrial Revolution. Well known and highly qualified faculty members joined DA-IICT and developed a curriculum and research program steeped in all aspects of ICT, societal, scientific, and technical. This spirit has been nurtured for the last 23 years and DA-IICT wants to continue its excellence in interdisciplinary teaching and research well into the future.

The Act No. 6 of 2003 of the Gujarat Legislature provided for the establishment of the DA-IICT and conferred on it the status of a University. On 30 November 2004, the DA-IICT was included in the list of Universities maintained by the University Grants Commission under Section 2(f) of the UGC Act, 1956. DA-IICT is a member of the Association of Indian Universities (AIU) as approved by the AIU at its 84th Annual Meeting held during 12-14 November 2009. The National Assessment and Accreditation Council, Government of India has accredited DA-IICT with an **A<sup>+</sup> Grade in 2023**.

## Vision and Mission

The vision of the institute is to become a globally recognized institution that offers innovative programs, outstanding faculty, an atmosphere of innovation, a responsive administration, a vibrant campus and a collaborative learning environment that continuously adapts to the changing landscape of research and innovation and the future of work. Toward this, we plan to design and deliver academic programs in both disciplinary and multidisciplinary domains to prepare students for a rapidly evolving work environment.

**Ranked among top 100 Engineering Institution by MHRD, Govt of India (NIRF-2019 rankings)**

**NAAC (Accreditation): A<sup>+</sup> Grade (Year- 2023)**  
**Selected for Center of Excellence award**  
**Annual Student Scholarships: INR 3-4 Crores**

**First Private University** to mentor PPP model based (central, state and industry funded) Institute - IIIT Vadodara (build academics and provided faculty support)

Only **Anchor Institute** in Gujarat to mentor the Faculty members of Engineering Colleges in Gujarat

Awarded the **Best University** in Innovation in Gujarat by Govt. of Gujarat in 2017



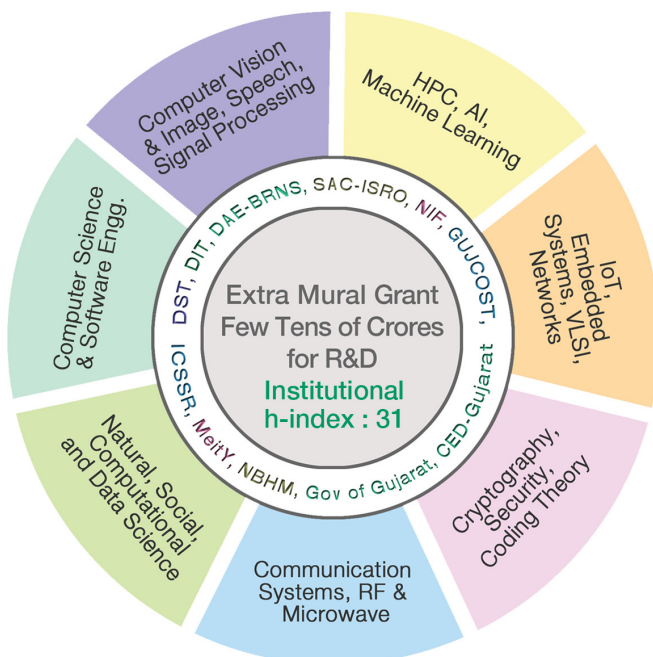


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# Academics and Research at DA-IICT

Interdisciplinary and Multidisciplinary Research Oriented Academic Programs

Level	Name of the Program	Duration	Unique Features
Doctoral	PhD	4-6 years	- Entry through national level entrance test & interview - Fellowship (PM) <b>INR 35000 - 40000</b>
PG	<b>MTech</b> (ICT)	2 years	- Four specializations: <b>ML, SS, VLSI &amp; ES</b> and <b>WCSP</b>
	<b>MSc</b> (IT)	2 years	- Industry oriented IT program
	<b>MSc</b> (Data Science)	2 years	- Hands-on & case study-based program
	<b>MSc</b> (Agriculture Analytics)	2 years	- In collaboration with <b>AAU, IIRS</b>
	<b>MDes</b> (CD)	2 years	- Fusion of ICT and Design
UG	<b>BTech</b> (ICT)	4 years	- 1 <sup>st</sup> Institute in India to offer <b>unique program</b> in ICT in 2001
	<b>BTech</b> (Hons in ICT; minor in Computational Science)	4 years	- 1 <sup>st</sup> Institute in India to offer UG program in Computational Science
	<b>BTech</b> (Mathematics and Computing (MnC))	4 years	- Intersection of Computer Science & Applied Mathematics to solve complex problems
	<b>BTech</b> (EVD) Electronics & VLSI Design	4 years	- 1 <sup>st</sup> Institute in Gujarat to offer



### International Projects

NSF-USA, Indo-French, Indo-Spain

### Industry / Consultancy Projects

nVIDIA (USA), FactSet (UK), Vista (India), ISRO Amnax Technology, GoG (Climate Dept.)

### Major MOUs / LOUs

Univ. of Oregon (USA), Univ. of Auckland (NZ), Univ. of Swaziland (UoS), Univ. of Dayton (USA), Univ. of Hildesheim (Germany), Univ. Mara (Malaysia), Univ. of Evora (Portugal), ISEP (France), ISRO, Indian Navy, ISI Kolkata, TCS, Samsung R&D, IIT Gandhinagar, IIT Jammu, IIIT Vadodara, C R Rao AIMSCS, EDII



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# Program Overview

## Why a M.Sc. program in IT?

MSc (IT) is an intensive program designed to build a prosperous professional career in Information Technology. The program aims to groom students to excel in a dynamic, fast-growing and highly demanding software industry - as software engineers, analysts, system designers, and team leaders. A graduate of the program will be well-educated in three crucial and complementary requirements for building a successful IT career -

1. Sound theoretical foundation
2. Ability to analyze, conceptualize and design systems
3. Fluency with modern software design and development tools

## Characterization of the Program:

- A semester-long industrial internship
- Impart practical knowledge through hands-on laboratory assignments at every stage
- Build a strong theoretical foundation through continuous evaluation
- Courses taught are aligned with IT industry demands
- Learning through the latest tools and technologies

The Master of Science in Information Technology is an intensive two-year post-graduate program (4 semesters) designed for students who wish to pursue a professional career in Information Technology. **The courses are carefully designed to guide the students through basic concepts to the current practices in the industry.** The program focuses on training a student in the theoretical foundations of Information Technology, its application and implementation related aspects. The program aims to make students industry ready to take up large scale projects with their technical and

managerial skills gained while going through the process. Students will learn various aspects of programming and explore areas in information technology such as information security, designing of software systems, databases and algorithms. The students not only learn to write the code but also understand the logic and algorithm behind it. The algorithmic approach of solving real-life problems will help the students to get in-depth knowledge of the software, language and programming to make them industry-ready.

The programme offers a broad technical understanding of current and evolving technologies in the IT field such as web programming, system programming, cloud computing, DevOps, software development skills. The students who are diligent, creative and possess excellent analytical skills; and ready to take up challenging roles to build a career in the IT industry can opt for this program.

As students come from different academic backgrounds, it is important to get everybody up to speed and on the same level. To do so, we offer several foundation level courses in the first semester. In subsequent semesters, a pedagogical approach is focused on **“learn through practice”**, incorporated in the form of mini-projects and case studies in addition to advanced courses. The program relies on a wide range of teaching methods including lectures, tutorials, case study analysis, lab exercises, projects as well as extras throughout the year.

Hands-on Laboratory experience is emphasized at every stage of the program. Along with the hands-on experience in the semester courses, students are required to carry out internships in two stages: One in the summer semester (8 weeks) and the other in the last semester



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# Program Overview

(16 weeks). Internships play a major role in accomplishing the objective of project-based reinforcement of concepts learned in various courses. The internships are designed to facilitate students' professional integration. It enables them to apply their newly acquired skills and knowledge to hands-on experience as interns within an organization. The students can carry out their internships either in industries or on-campus (under the supervision of faculty member(s)).

## Program Design:

The program is designed to impart skills to students that are relevant, current and what the IT industry is looking for. The course content of this program builds a solid foundation of knowledge in the first two semesters and then lets students learn specific skills through various elective subjects. The subjects such as Enterprise Computing, Cloud Computing, Design of Software Systems help students bring their skills to a level expected of budding IT professionals.

At the end of the program, it is expected that the students attain a sound theoretical foundation; an ability to analyze, conceptualize and design systems; and competence in modern software design and development tools. A typical graduate in IT at DA-IICT can expect to build a career as a software engineer, an analyst or a system designer.

**Industrial Internship**

**Hands-On Experience**

**Theoretical Foundation**

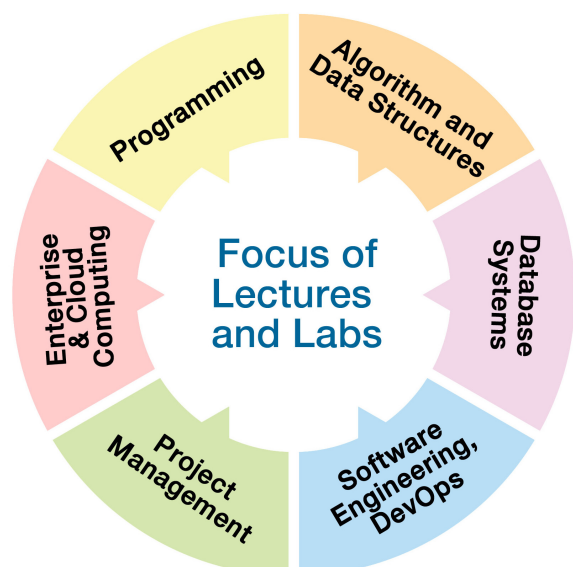
**Industry-Oriented Program**

**Latest Technologies & Frameworks**

**Characterization of the Program:** Algorithmic approach, Programming, Industrial Internship, Software Design and system programming, communication skill, project management, software development skills.

## Uniqueness of the Program:

- Industry and practice-oriented program
- Program courses have laboratory/project components
- Continuous evaluation





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# Course Curriculum

## Autumn Semester (Semester-I)

Course Name	Credits (L-T-P-C)
Discrete Mathematics	3-1-0-4
Introduction to Programming	3-0-2-4
Data Structures	3-0-2-4
Database Management Systems	3-0-2-4
Communication Skills	3-0-0-3

## Winter Semester (Semester-II)

Course Name	Credits (L-T-P-C)
Object Oriented Programming	3-0-2-4
Introduction to Algorithms	3-0-2-4
Systems Programming	3-0-2-4
Software Engineering	3-0-2-4
Computer Networks	3-0-2-4

## Summer

Summer Internship (8 Weeks)	8 credits
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## Autumn Semester (Semester-III)

Course Name	Credits (L-T-P-C)
Software Design and Testing	3-0-2-4
Web Services and SoA	3-0-2-4
Web & Mobile Development	3-0-2-4
Technical Elective	3-0-2-4
Open Elective	3-0-2-3

## Winter Semester (Semester-IV)

Project Internship (16 Weeks)	16 credits
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## Internships

Students of this program are to take the following two internships typically taken in industry

- **Summer Internship** in the first summer semester for about eight weeks
- **Project/Industrial Internship** – Full time in Final Semester



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# Admissions

Total seats: 120

## Eligibility Criteria

A Bachelor's degree holder from a recognized University in any stream with an aggregate of 60% marks, or its equivalent as per the norms set by the degree granting institute/university, in the qualifying degree examination is eligible to apply. Candidates appearing in their final Degree examination and expecting to complete it by July 2024 may also apply. However, their final admission will be subject to the condition that they obtain an aggregate of 60% marks, or its equivalent as per the norms set by the degree granting institute/university. All admitted candidates have to submit their degree certificates or proof of completion of Degree, before 30th October 2024 failing which their admission is liable to cancellation.

## Selection Process

The selection of candidates will be based on the entrance test to be conducted at selected centres all over the country.

## Important Dates

Online application website opens	<b>14<sup>th</sup> March 2024</b>
Last date for submission of online applications	<b>20<sup>th</sup> May 2024</b>
Entrance test	<b>16<sup>th</sup> June 2024</b>



## Fees Structure\*

At the time of counselling an amount of Rs. 1,35,000/- (Rs. 1,10,000/- towards Tuition Fee for the First Semester and Rs.25,000/- towards a Caution Deposit) - The registration fee is payable at the time of registration and hostel rent on allotment of the hostel room.

Tuition fee	Rs. 1,10,000 per Semester
Registration Fee	Rs. 2,500 per Semester
Caution Deposit	Rs. 25,000 (Refundable at the end of the program)
Hostel Rent	Rs. 27,500 per semester
Food	On actuals. There are multiple food options available in the campus (The expense will be approximately Rs.5,500 pm)

**\*Subject to revision every Academic Year from 8 to 10%.**

## Education Loan

The Institute will facilitate the students to avail educational loan from selected Banks. The bank officials will be present on campus at the time of registration of admitted students so as to enable the students to obtain details on procedures and terms and conditions of the loan. The students can also avail loan from banks of their choice and in either of the case; the Institute will extend support in completing the loan documentation process.

## Financial Support

The Institute provides financial support in the form of scholarships to eligible students.

For Inquiries

Email: [pg\\_admissions@daiict.ac.in](mailto:pg_admissions@daiict.ac.in)

Voice call: 079 69 08 08 08

For more details please visit: [www.daiict.ac.in](http://www.daiict.ac.in)