ENGINEERS WITH SOCIAL RESPONSIBILITY

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B.Tech. (ICT)

Program Overview

Program Structure

B.Tech. (Honours) in ICT with Minors

DA-IICT offers a unique four-year undergraduate program in Information and Communication Technology (ICT) leading to the degree of:

- **B.Tech. (ICT)**
- **B.Tech. (Honours) in ICT**
- **B.Tech. (Honours) in ICT with minor in Robotics and Autonomous Systems**

ICT embodies the convergence of Computer and Communication systems and has obtained wide acceptance as a distinct discipline. It is also expected that ICT graduates would enjoy a special niche only if they have certain performance capabilities not found in conventional CSE and/or ECE graduates. Logically this convergence takes place at the systems level, but at the same time it is necessary to accept a certain level of granularity as one goes down to the level of circuits, devices and materials. All programs are designed to operate on a semester-based framework that follows choice-based credit system.

The B.Tech. (ICT) program provides a lot of flexibility and choice to students. Students may choose to do more coursework and graduate with

(a) B.Tech. (Honours) in ICT

Apart from satisfying all credit/course/internship/project requirements stipulated for the B.Tech. (ICT) program, the B.Tech. (Honours) in ICT requires a student to complete a minimum of 15 additional credits (and a minimum of five additional courses) in the form of electives. The electives available for the Honours program shall be specified by the Dean-AP, and the flexibility to choose honours qualified elective courses starts from the fourth semester of the program. The students do not have to sign up for this program, and any student who meets the criteria listed below at the time of graduation will be conferred with the B.Tech. (Honours) in ICT degree.

- All requirements for B.Tech. (ICT) program
- Additional minimum 5 designated courses/15 credits.
- Passed in these additional 5 courses.
- Minimum final CPI of 6.5.

(b) B.Tech. (Honours) in ICT with Minor in a Particular Area

Depending on the faculty resources and student interest, the institute offers a Minor in a particular area to students of the B.Tech. (ICT) program. This will enable students to pursue an in-depth study into an area within ICT or get introduced to an area which complements ICT.

Apart from satisfying all credit/course/internship/project requirements stipulated for the B.Tech(ICT) program, the B.Tech. (Honours) in ICT with Minor requires a student to complete a minimum of 15 additional credits (and a minimum of five additional courses) in the form of electives which are aligned with the area in which the Minor is offered. The courses under any Minor begin in Semester 4 and can culminate in Semester 7, and may involve a sequence of Core courses, Elective courses, and/or project based courses. The first Minors program offered by the Institute is the Minor in Robotics and Autonomous Systems(RAS), and was offered to the batch of B.Tech. (ICT) 2021 students. The eligibility criteria to enrol in each Minor and criteria to successfully complete the Minor are specific to each Minor. It is to be noted that the B.Tech. (Honours) in ICT with Minor in Computational Science is a separate program, and should not be considered as a Minor under this section for all operational purposes. The description, benefits, eligibility

criteria, criteria for successful completion, and detailed course content for each Minor can be found

here (https://www.daiict.ac.in/btech-ict#tab-3)

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Programme Outcomes (POs)

PO No.	Programme 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 Programme Specific Outcomes (PSOs) set the following goal:

After the successful completion of the BTech (ICT) programme, students will have:

PSO	Program Specific Outcomes (PSOs)

No.	
PSO1	To apply the theoretical concepts of computer engineering and practical knowledge in analysis, design and development of computing systems and interdisciplinary applications.
PSO2	Develop system solutions involving both hardware and software modules
PSO3	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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- Faculty (/faculty)
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NAAC

- SSR & Evaluative Reports Addendum 2017 (/sites/default/files/NAAC-Addendum-final.pdf)
- SSR 2015 (/sites/default/files/NAAC-Self-Study-Report.pdf)
- Evaluative Report 2015 (/sites/default/files/NAAC-Evaluative-Report.pdf)

CoE, Government of Gujarat

- Application submitted (/coe-government-gujarat)
- 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)
- 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)
- Parents (/parents)
- 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)**
- **Concours (http://concours.daiict.ac.in/)**
- **Tree Survey (/tree-survey)**

Group Website

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

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