Master of Science (Digital Society) @ IIIT Bangalore

a unique interdisciplinary post-graduate programme at the intersection of information technology and social sciences for students from diverse disciplinary backgrounds

With the use of Information and Communication Technologies (ICTs) permeating and shaping every sphere of our public and personal experience, we find ourselves in an increasingly digital society. If ICTs have opened up immense possibilities for economic and social change, they also raise many questions, especially as India actively claims membership in the digital society.

- How transformative will these changes be?
- Will they be equitable and sustainable in addition to enhancing efficiency?
- Will they amplify existing social divides and create new ones in the process?

Answering these questions call for insights into the digital ecosystem. It demands interdisciplinary skills combining an appreciation of technological possibilities along with a nuanced understanding of the economic, political, and socio-cultural context. But, more often than not, well-intentioned technologists and social scientists attempt to answer these questions within the narrow confines of their own disciplines. Consequently, the public, private, and development sectors face a capacity gap in leveraging ICTs for an efficient, equitable and sustainable digital society.

This impels us to ask: Are we prepared to design for a complex digital society? How should we train those designing, developing, deploying, and managing these technologies? Recognizing the socio-economic potential of ICTs, and the increasing need to train professionals in harnessing this potential, IIIT Bangalore has been offering a unique and innovative full-time 2-year Masters Programme in Digital Society since 2015.

The Master of Science (Digital Society) programme at IIIT Bangalore is designed to create a group of professionals who will:

- Contribute to the design, development and deployment of digital technologies for diverse social groups;
- Provide and manage ICT based solutions that address persistent developmental challenges in domains such as education, governance, and health;
- Engage in policy making and in advocacy for deploying digital technologies; and
- Enrich interdisciplinary research on the digital society.

Curriculum structure:

- **A two week preparatory semester on Introduction to Digital Society**: This consists of a series of sessions, including lectures, readings, and audio-visual media to expose students to the foundational logic of the programme and its interdisciplinary underpinnings. It also provides an overview of the conceptual toolkit for designing a digital society.

- **Core Courses and Electives**: Specifically designed for a heterogeneous student group to learn about and address various challenges of the digital society, including:
    - Developing, deploying and managing large-scale digital systems;
    - Designing interfaces for diverse populations;
    - Socio-historical aspects of the "digital";
    - Policy and regulatory issues in the contemporary digital society;
    - Quantitative and qualitative research methods, tools, and techniques, to examine user needs and outcomes, and to evaluate the impact of ICTs;
    - Technologies such as cloud or mobile platforms, data analytics, social media, human-computer interaction, and spatial-information systems; and
    - Domain-specific understanding of the technology-society interface, including issues pertaining to education, governance, gender, identity, poverty, and public health.

- **Project-based learning**: This involves small-group projects to address challenges of the digital society by applying learnings from the courses.

- **Thesis/Internship**: In the final term, students will be required to either: a) work on a Masters thesis to hone their research skills; OR b) undertake an internship to further sharpen their professional skills by applying the learnings from courses undertaken during the previous terms – this could involve working on a project within their parent organizations.

A term-wise break-up of the courses is provided below:

Preparatory Term (2 weeks, 1 course, 2 credits)
Introduction to Digital Societies (Pass/No Pass)
Term 1 (16 weeks, 5 core courses, 18 credits)
Digital Components of a Connected Society (4 credits)
Technology and Society (4)
Interface Design for Diverse Populations (4)
Quantitative Methods (3)
Qualitative Methods (3)

Term 2 (16 weeks, 4 core courses, 1 elective, 18 credits)
Information and Communication Technology Policy and Regulation (4)
Engineering and Management of Large Digital Systems (4)
Digital and its Discontents (4)
Information Management (2)
Elective I (4)
Summer Term (8 weeks, 1 core course, 4 credits)
Project Elective (4)
Term 3 (16 weeks, 4 electives, 1 seminar, 18 credits)
Electives II, III, IV, V (16 credits)
Seminar (2)
Term 4 (26 weeks, 16 credits)
Thesis/Internship (16)
Total Credits: 76

Some of the **electives** currently being offered as a part of the programme include the following:

- *Advanced research methods*
- *From territorial place to cyberspace: The political economy of location*
- *Digital product development*
- *Dynamics of the Information Technology industry*
- *E-governance application design*
- *Geographical information systems*
- *Information Technology project and product management*
- *Smart cities: Urban labelling and beyond*
- *Social media communication*
- *Techno-economics of networks*

In addition, students of the programme can also select one elective from the list of electives offered by other research domains at IIIT Bangalore (in the areas of computer science; data science; embedded systems design; networking, communications and signal processing; software engineering) as long as they meet the prerequisites.

Eligibility and selection:

- The Masters of Science (Digital Society) is open to candidates with an under-graduate degree of at least 3 years duration after 10+2 from a recognized University. The under-graduate degree may be in any area, including engineering, sciences, social sciences, commerce, arts and humanities.
- A written test and interview is conducted at IIIT Bangalore for admitting students into the programme. The written test covers multiple choice questions in the areas of verbal ability, numerical ability, analytical ability, social awareness, IT awareness and design awareness.

For more details about the programme:

You may write to the Coordinator, M.Sc. (Digital Society) at admission-ds@iiitb.ac.in or visit the programme webpage at http://iiitb.ac.in/programs.php?pid=Master-of-science-digital-society

The **International Institute of Information Technology Bangalore, IIITB** (www.iiitb.ac.in) is a deemed University and was established in 1999 to contribute to the Information and Communication Technology (ICT) world by focusing on education and research, entrepreneurship and innovation. Since its inception, IIITB has grown in stature and has gained significant repute in academic and industry circles. IIITB works in close partnership with the ICT industry, while retaining the freedom of an academic institution.

International Institute of Information Technology Bangalore
26/C Electronics City, Hosur Road, Bengaluru 560100

Ph: (080) 41407777