Department of Design

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Join the Department of Design at IIT Kanpur!

Post Graduate Program

https://www.iitk.ac.in/design/

Design education at IIT Kanpur is a transformative journey that fosters creativity and critical thinking. With a nice blend of theory and practice, our curriculum lays emphasis on user-centred approaches and incorporates human factors to ensure that designs effectively meet the needs and behaviours of users. Through hands-on projects, collaborative teamwork, and interdisciplinary learning, we prepare students for real-world challenges.

We incorporate elements of social innovation, encouraging students to tackle pressing societal issues through the development of sustainable products, applications and services. We utilize advanced tools, technology, and design thinking methodologies to cultivate a mindset focused on continuous improvement and adaptability.

We empower students to experiment with ideas, materials, and technologies, addressing complex challenges in an increasingly visual and interactive world. We also encourage students to place a strong emphasis on intellectual craftsmanship and personal expression in all their design endeavours.

Our Masters and PhD program offers a robust platform for in-depth exploration and academic contribution in various design fields, guiding you not only to become skilled designers but also visionary leaders and strategic changemakers capable of shaping the future. Join us to transform your passion into expertise and make a meaningful impact in the world of design. Explore your future at the Department of Design!

For more information, visit https://www.iitk.ac.in/design/ or contact us at Phone: 0512-259-7509.

Master of Design

Unlock your potential in the dynamic world of design with our advanced programs tailored for aspiring innovators, entrepreneurs and researchers. Our curriculum is multifaceted. It draws in knowledge from all areas relevant to a designer; human factors, design thinking, science and technology, user experience, communication, business logic, sustainability and so on. Our Master's program broadly has three streams with a number of courses to choose from; Design Entrepreneurship, Design Research, and Design Practice equip you with the skills and knowledge to thrive in today's competitive landscape.

1) Design Entrepreneurship Program:

Prepares you to launch and manage design-driven ventures, blending creativity with business acumen. As a design entrepreneur you can be a strategic changemaker for an organization by combining entrepreneurial thinking with design principles to drive innovation, influence culture, and create sustainable value. You can drive meaningful change within an organization, positioning yourself as a key contributor to strategic initiatives and fostering an environment of innovation and adaptability.

3) Design Practice Program:

Focuses on hands-on experience, empowering you to create impactful solutions that address real-world challenges. As a practicing designer you can be a strategic changemaker for an organization by harnessing your creative skills and design thinking principles to drive innovation, enhance user experiences, and influence organizational culture.
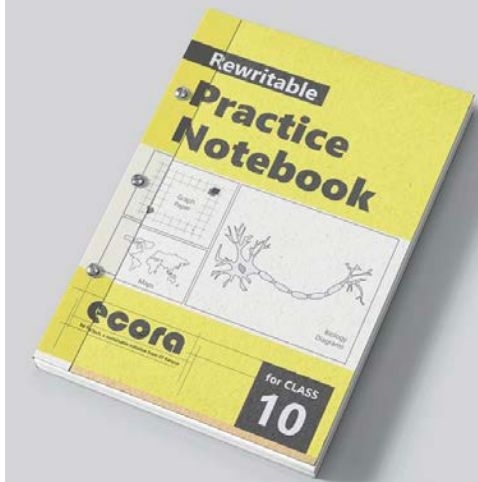
We encourage dynamic minds to work on the above design streams to create the next generation of designers and design leaders. Candidates with previous work experience are encouraged to apply. Details of the admission procedure can be found online at the following link:

Eligibility for M.Des

Must qualify CEED or GATE exam.

Education Qualification:

- 4 years B.Des, B.Tech in any discipline of engineering, B.Arch, B.Plan, BFA, BVA or equivalent with the 6.5 CGPA

- 5 years (3+2) MA/MSc in all disciplines of Sciences, Arts, Humanities and Social Sciences.

2) Design Research Program:

Emphasizes critical inquiry and analytical skills, fostering the development of ground-breaking ideas and methodologies. As a design researcher you can be a strategic changemaker in an organization by leveraging your skills and insights to drive innovation, improve user experiences, and inform decision-making.

PhD in Design

The PhD program at IIT Kanpur enables the researcher to work on advanced design and complex societal problems that creates value for the end users. Students joining this program work on challenging problems while being supported by a stipend. Potential students are encouraged to contact prospective supervisors to know about the program and their research interests. A few areas of potential work are listed below.
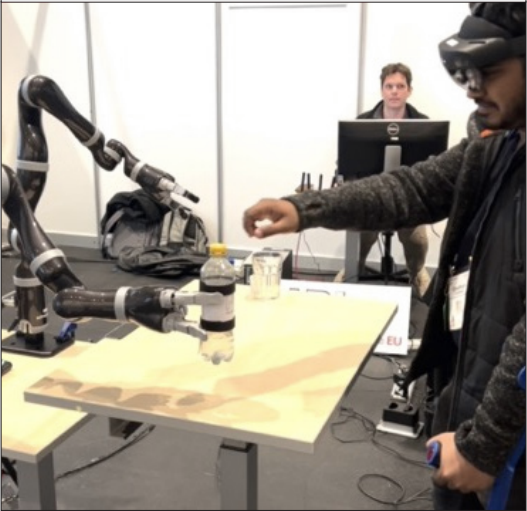
Please come and work with the faculty on innovate doctoral research that defines the next era. Candidates with previous work experience are encouraged to apply. Details of the admission procedure can be found online at the following link:

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Areas of research and exploration

- Product/Industrial Design
- Communication Design
- Interaction Design
- User Experience Design
- Human-Machine Interaction
- Human-Computer Interaction
- AI Experiences in Design
- Design for Sustainability
- Design and materials
- Visual Culture
- Crafts
- Design for extended reality (XR)
- Human Robot Interaction
- Sound Design/ Music Technology
- Design for New Media

- System and Service Design
- Strategic Design and Design Policy
- Human Factors and Ergonomics
- Speculative Design/Design Futures/ Design Fictions
- Design informatics
- Design of multi-robot systems
- Design of complex engineered systems
- Design for Industry 4.0/5.0
- Design of IoT systems
- Design for smart manufacturing
- Bio Design
- Bio Mimetics

Eligibility for PhD

i) A Master's degree in Engineering /Design with a minimum of 75 percent marks / 7.5 CPI.

or

a Bachelor's degree in Engineering /Design/ Visual Arts/ Architecture (4 years) with a minimum of 75 percent marks /7.5 CPI and a valid GATE/CEED score (the requirement of GATE/CEED score is waived for candidates with Bachelor's degree in Engineering / Design / Architecture or Science (4-year programme) from the centrally funded technical institutes (CFTIs)).

or

a Master's degree in Science/ Visual Arts/ Architecture/ Arts/ Humanities /Social Sciences or an allied area while satisfying each of the following three criteria:

(a) a minimum of 65 percent marks/6.5 CPI in the Master's degree,

(b) first division in bachelor's degree, and

(c) Valid JRF/GATE/CEED score.

(ii) A valid GATE/CEED score is required for the candidates with a Bachelor's degree in Engineering/Design/Architecture/ Visual Arts/ or Science (4-year programme), except in the case of candidates with Bachelor's degree in Engineering / Design/Architecture or Science (4-year programme) from the centrally funded Technical Institutes (CFTIs).

Labs and Studios

PDP Studio

The PDP Studio in the department enable students to easily prototype their products, allowing them to easily and simply analyse the design in detail. With full color prototyping ability, students can also create final prototypes with a high level of finish suited for display. To further complement the product design studies, the lab is equipped with a 3D Scanner, that help scan a physical three dimensional model into a virtual 3D Model. This allows student to scan forms and objects into 3D model that can be used for form analysis, product detailing and wide array of other possibilities..

HIVE Lab (Harmony, Interaction, and Versatile Exploration Lab)

The HIVE Lab in the Department of Design, IIT Kanpur, provides necessary facility to build a product and enable interaction by human users. It focuses on Human Machine/ Computer Interaction research in the domains of AI, AR/ VR/XR, Robotics, Music, Automotive, New Media and Accessibility. The facility is equipped with SOTA sensors, actuators, trackers and simulators.

TRON

The mechatronics design studio in the department provides the necessary facility to build a product that requires electronic support or mechatronic device. The facility is equipped with SOTA and commercially off-the-shelf sensors, actuators and development boards.

HFSS Studios (Human Factors and Sociotechnical Systems Studios)

One of the most fundamental challenges in systems design is integrating the human as a part of the overarching system. Our aim, as part of Department of Design, IIT Kanpur, is to incorporate the human as a system component without making it mechanistic in nature. Reciprocally, the founding principle of this studio is to incorporate human factors in complex sociotechnical systems from a holistic viewpoint sustaining the lived experience of the human as well as the designed dimension of the system

SMILE Lab (Smart Manufacturing and Intelligent Learning Systems Lab)

The Smart Manufacturing and Intelligent Learning Systems Lab (SMILE Lab) is at the forefront of pioneering research and innovation in the fields of advanced manufacturing, artificial intelligence, and intelligent learning systems. Our mission is to revolutionize industries by integrating cutting-edge technologies such as machine learning, robotics, and data analytics into manufacturing processes. By bridging the gap between traditional manufacturing and Industry 4.0, we aim to create smarter, more efficient, and sustainable production systems that can adapt to the ever-evolving demands of the global market. At SMILE Lab, we focus on developing intelligent solutions that enhance productivity, optimize resource utilization, and reduce operational costs. Our research areas include predictive maintenance, process optimization, digital twin technology, and human-robot collaboration. By leveraging AI-driven insights and real-time data analysis, we empower industries to make informed decisions, reduce downtime, and enhance overall performance. Through close collaboration with industry partners, academic institutions, and government agencies, we strive to translate our research into practical, scalable solutions that drive the future of smart manufacturing. We are committed to fostering a culture of innovation and learning, equipping the next generation of engineers and researchers with the skills and knowledge needed to excel in the rapidly evolving world of intelligent manufacturing. Whether you're a student, researcher, or industry professional, we invite you to join us in exploring the limitless possibilities of smart manufacturing and intelligent learning systems. Together, we can shape the future of industry and redefine the standards of modern manufacturing.

Digital Design Studio

Digital Design Studio is a cutting-edge computer lab meticulously designed to foster creativity and innovation in digital design. Equipped with state-of-the-art infrastructure, the studio features high-performance workstations loaded with industry-standard software for graphic design, 3D modelling,

animation, and multimedia production. High-resolution displays and advanced graphic cards ensure that designers can visualize their projects with precision and clarity. The lab also includes collaborative spaces for brainstorming and teamwork, allowing students and professionals to share ideas and refine their designs in real-time. Specialized tools, such as drawing tablets and virtual reality equipment, enhance the creative process, enabling users to experiment with various design techniques and technologies. With a focus on both education and professional development, Digital Design Studio serves as a hub for workshops, seminars, and hands-on training, empowering individuals to hone their skills and push the boundaries of digital creativity in an ever-evolving industry.

Media Technology Centre Studios

Media Technology Centre Studios boasts state-of-the-art infrastructure designed to empower students in exploring the creative potential of filmmaking. Equipped with advanced cameras, editing suites, and sound studios, it provides an immersive environment for hands-on learning and experimentation. Students can engage in various aspects of production, from scripting to post-production, fostering a comprehensive understanding of the filmmaking process.

In addition to its educational initiatives, the Centre actively collaborates on e-learning projects of national importance, utilizing its resources to enhance digital literacy and accessibility. This dual focus not only cultivates filmmaking talent but also contributes to broader societal and educational goals.

Faculty Members

Dr. Gowdham Prabhakar PG,
Assistant Professor

PhD (IISc Bangalore)

Human Computer Interaction (HCI), Robotics, Music Technology

Dr. Amar Kumar Behera,
Associate Professor

Ph.D (KU Leuven)

Product design, Internet of Things (IoT), Industry 4.0 Engineering informatics, Multirobot systems, Smart manufacturing Flexible sheet metal forming, Bio-medical devices, Complex engineered systems

Dr. Vivek Kant,
Associate Professor

Ph.D. (University of Waterloo)

Human Machine Interaction, Human Factors, Human Systems Integration, System Design, Strategic Design, Speculative Design

Dr. Mainak Das,
Professor

PhD (University of Central Florida)

Bio Design & Biomimetic

Dr. Satyaki Roy,
(Head, Department of Design)
Professor

Ph.D (Visva Bharati University)

Communication Design, Films and Media, Folk Art and Crafts, Creativity

Associated Faculty

Dr. J Ramkumar,
Professor

Ph.D (IIT Madras)

Micro/Nano Manufacturing and New product/process development, Tribology, composite, Manufacturing Process modelling, Medical Device Development

Adjunct Faculty

Dr. Jhumkee Sengupta Iyengar

User Experience Design

Dr. Avinash Shende

Industrial Design

Dr. D. Udaya Kumar

Graphic Design Typography Type Design Information Graphics Motion Graphics Design Research Exhibition Design Architecture

Dr Sreekumar GV

Visual Design, Typography, Publication Design, Magazine Design,Information Graphics

Dr Sugandh Malhotra

Design for future, Design for marginal societies, Sustainable design, Bio-inspired design, Mobility design.

Dr Nishant Sharma

Automotive Design, Vehicle Design Process, Product Form and Aesthetics, Participatory Innovation

Contact

Convenor, DPGC
Dr. J Ramkumar
Email: dpgc_des@iitk.ac.in
Phone: 0512-259-7546

Design Office

Mr. Pawan Kumar Yadav
Email: pawanky@iitk.ac.in
Phone: 0512-259-7509

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भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur