# Design Programme

An Interdisciplinary Courses-of-Study for the award of Master and PhD degree in Design



The Design Programme envisions itself as an interdisciplinary space for co-creation of design education, research and people-centric application. We believe in developing a collaborative environment between students, researchers, academicians and business practitioners. We aim at creating a working environment enabling knowledge sharing and experience exchange. Pedagogically, we believe in 'learning by doing', experimentation, collaboration and innovation. We aim at creating the next generation of designers, design thinkers and design leaders who will conceptualize and develop design solutions for the challenges faced by industry and society. To do so, we foster a passion based and student centric learning culture. We constantly explore creative ways of working and enhancing interaction to support world-class development in education, research and practical application context. We strive to build on designers' ability to research, discover, invent, innovate, ideate, make decisions, evaluate and lead for the purpose of improving quality of life.

Our curriculum is based upon an interdisciplinary synthesis of design, technology, social sciences and management, while also adhering to the principles of sustainability. The programme inculcates the spirit of creativity, celebrates innovation, develops an appreciation for human values, fosters craftsmanship, and encourages personal expression leading to evolution of products and services for the betterment of society and people.

### **Our Students**

Design at IIT Kanpur is a unique program in terms of its multidisciplinary approach and flexibility. This requires a certain maturity to be able to navigate, exploit it to its fullest and derive maximum benefit from it. Students comfortable with ambiguity & flexibility fit well and have a better head start in the unique environs for Design education at IIT Kanpur. At the Design Program, we seek problem solvers with a good academic record, interdisciplinary outlook, strong emotional and social intelligence, capable of thinking on their feet, and above all hard working and persistent.

## **Our Graduates**

We have a strong placement record since our inception in 2002. Our graduates have been joining the IT industry, organizations with a focus on media, product design and visual graphics, automobile industry, and we are proud of the myriad range of successful start ups launched by our alumni. A select few have also pursued research in Design towards a PhD and eventually opted an academic career.

# **Design Disciplines**

In the first two semesters of the masters programme we offer students a holistic training in Design through the core courses and departmental electives in various different disciplines of Design. Students are also encouraged to take courses outside their own discipline. Students take up thesis project in the third and fourth semester of their masters programme in some of the following streams of study: Product/ industrial Design, Mobility Design, Visual Communication, Engineering Design, User Experience Design, Interaction Design, Film Making, Systems Design etc.

# **Faculty**

We have a multidisciplinary group of faculty drawn from many different departments, streams and discipline of study from across the institute who contribute in teaching as well as research in the Design Programme. Additionally we have several adjunct and visiting faculty members from the industry and academia.

Braj Bhusan Ph.D (BRAB University) Cognitive Neuropsychology, Cognitive Factors in Design

Deepu Philip Ph.D, (MSU Bozeman)
Production and operations management, Systems engineering and simulation, Local search and optimization

D. P. Mishra Ph.D (IISc Bangalore) Combustion system Design, Thermal System, Pedal Power Devices, Design products for rural India

Ishan Sharma Ph.D (Cornell University)
Granular materials, Planetary science, Contact mechanics and adhesion, Soft materials, Dynamics, Structural vibrations, Wave propagation, Stability, Fluid-structure interaction

J Ramkumar Ph.D (IIT Madras) Design products for inclusive society, Design products for rural india, Design products for children

Koumudi P Patil PhD (IDC, IITB) Communication Design, Design Thinking and Research Methods, Frugal Innovation for creative Industry

Mainak Das PhD (University of Central Florida) Bio-electricity, Green Energy, Physiology, Sensor

Manindra Agarwal Ph.D (IIT Kanpur) Abstractions and Design

Munmun Jha Ph.D (Glasgow University) Design Anthropology

Nachiketa Tiwari Ph.D (Virginia Tech)
Product Design, Acoustics and Noise Control, Solid
Mechanics, Composite Structures, Vibrations, Automotive
Systems, MEMS

Niraj Sinha Ph.D (University of Waterloo) Prosthetic aids, Low cost machines

Satyaki Roy Ph.D (Visva Bharati University) Folk Art and Crafts, Creativity, Cinema Studies

Shantanu Bhattacharya Ph.D (University of Missouri, Columbia) Design of Dental Healthcare products, Design of Clinical Diagnostic Products, Design of products for water remediation Shatarupa T Roy Ph.D (DOD, IIT Guwahati) History of Art, Visual Culture, Design Theory

Tarun Gupta Ph.D (Harvard University)
Environmental Engineering, Personal exposure assessment and health effects of inhaled particles, Control of engine exhaust emissions, and risk assessment

Ritwij Bhowmik Ph.D. (National Chiao Tung University, Taiwan) Art History, Art Education, Visual Culture, Film and Media Studies, Modern Art, Far-Eastern Art, Chinese Calligraphy and Painting

Vimal Kumar Ph.D (University of California, Irvine) Economics of Conflict, Microeconomic Theory, Political Economics, Economic Growth and Technological Development, Game Theory

Vinay P Namboodiri (IT Bombay) Multimedia for intelligent interfaces, Machine learning for interface and content analysis, Sketch based representation

#### Adjunct Faculty

Jhumkee Sengupta lyengar User Experience Design, Design Thinking and People Centered Design, Design Methodology and Practice, Design Education in Rural Contexts

Arvind Lodaya Strategic Consulting, Branding, Industrial Design

Om Prakash Material and Manufacturing Research

Shailendra Singh Process and System Innovation

## **Admissions**

#### M.Des

Masters programme in Design aims at attracting students from diverse backgrounds who exhibit high levels of creativity, intellectual ability and maturity. To ensure such a student profile, we admit those best suited to our programme through a rigorous selection process.

Admissions are made once a year, in July. The minimum academic qualification is that candidates should hold a Bachelor's degree in Engineering, Design or Architecture from a recognized University with not less than 55% marks or equivalent (no marks restriction for SC/ST/PD candidates) as well as a valid CEED/GATE score. Candidates holding degrees in Fine Arts or Interior Design are not eligible to apply for this programme. Students in the final year of the qualifying degree may also apply, but the admission would stand cancelled if the final examination is not over at the time of admission, or if the proof of minimum qualification is not submitted by September 30th in the year of admission. There is no restriction on the age of the candidate or the number of attempts for CEED/GATE. Shortlisted candidates will be called for another screening at the Institute, the details of which will be intimated to the candidate with the call letter by Programme and admission will be granted based on the final results.

## Ph.D. in Design

The applicant must have a master's degree in Engineering/ Technology/ Design with marks/CPI not below the specified minimum. Applicants with a bachelor's degree in Engineering/ Technology/ Design (four years programme) with a minimum of 75 percent marks / 7.5 CPI or Master's Degree in Science or an allied area satisfying each of the following criteria may also be considered.

- (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 GATE/CEED score

