



Short Course on:

Design-Driven Social Innovation

Design Innovation Centre @ IISc

Dept. of Design and Manufacturing, IISc

Course Schedule

16 Sep 2024 - 02 Nov 2024

Two classes per week: 5 PM - 6 PM

Mondays and Thursdays (Offline)

Minimum Qualification Required

Undergraduate Degree in Engineering or Science (either completed or currently pursuing)

Prerequisites English Proficiency, Class 12th Mathematics

Student Profile

The course is aimed at undergraduate or graduate students in engineering or science, who wish to learn about creating socially relevant designs.

Instructors

M.C. Kumari is the Program Manager at the Indian Institute of Science, for the Ministry of Education sponsored National Design Innovation Network, a web portal bringing together 80+public universities in India, and the Design Innovation Centre at IISc. She has a B.Arch from Anna University, M.Des in Product Design from IISc, M.Phil in Environmental Design from the University of Cambridge, and PhD in Engineering from IISc.

B. Gurumoorthy is a Professor at the Indian Institute of Science in the Department of Design and Manufacturing and the Department of Mechanical Engineering. He is the convenor of the Ministry of Education sponsored Design Innovation Centre established at IISc in 2014 and also the National Design Innovation Network since 2016. Presently, he is also serving as the Managing Director of the Foundation for Science, Innovation and Development (FSID), a not-for-profit section 8 company established by IISc to serve as the outreach interface for the beneficial exploitation of the innovations and the human potential existing at IISc. His research interests are in the areas of CAD, Product Information Modelling, Computational Metrology, and Product Design and Prototyping. He did his B.Tech at IIT Madras in 1982 followed by M.E. and Ph.D at Carnegie Mellon University, Pittsburgh, USA in 1984 and 1987 respectively (all in Mechanical Engineering). He has guided 19 PhD dissertations and is presently supervising or co-supervising 4 PhD students. Presently he is working on projects funded by the Department of Science and Technology and Ministry of Heavy Industries. He has over 50 Journal publications and 5 patents. He serves on the editorial board of five journals. He is currently the Vice-Chair, Asia-Pacific, IFIP WG 5.1 on Global Product Development for the Whole Life Cycle.

Course Content

This course aims to encourage students to learn to identify user needs from a social context of their choice and ideate and build design solutions that add value creation to the intended users. The goal of the course is to sensitize students to identify the needs of society, transform those needs to design requirements, and analyze whether design solutions created are addressing those needs. The course would primarily involve student-driven design projects and prototyping exercises where students collaborate in teams to design and build a functional prototype. The design outcomes from the course could potentially be converted to start-ups and students would be encouraged to pursue entrepreneurship with socially relevant designs.

Week 1:

Lectures on design, innovation and social innovation case studies, survey methods and in class exercises with project-based learning of designing a socially relevant design.

Week 2:

Lectures on problem identification and arriving at design requirements for socially relevant designs, and creativity methods. Project presentations by students.

Week 3:

Lectures on concept evaluation and peer-review of project presentations.

Week 4:

Demo session of prototyping methods.

Week 5:

Project presentation of final concept, mock-ups and review.

Week 6:

Field visit and mock-up testing in the field.

Week 7:

Final project presentation, with field-testing results and lectures on taking forward the idea to market.

VENUE

Department of Design and Manufacturing, IISc Bangalore

Course Fee per participant: Rs.1000 + 18% GST

Registration Deadline: 12 Sep 2024

Registration Link:

<https://iisc.online/shortterm/home.html>

Scan Here

