

PRODUCT DESIGN AND INNOVATION

MULTI FACULTY

TYPE OF COURSE : Rerun | Core | PG
COURSE DURATION : 4 weeks (18 Jan' 21 - 12 Feb' 21)
EXAM DATE : 21 Mar 2021

INTENDED AUDIENCE : Students

COURSE OUTLINE :

Product Design and Innovation course is intended to introduce overall awareness of the product design process. This course will give an understanding of methods, tools and techniques applied in product design. This course includes overview of innovation, product design process, user study, need/problem identification, development of design brief, understanding competitive benchmarking, aspects of human factors in product design, tools for creative concept generation, prototyping/model making and evaluation techniques for user-product interaction. This course will be explained with lectures including case studies and hands-on exercises. This will help students to generate creative ideas in to product design, considering human factors aspects.

ABOUT INSTRUCTOR :

Supradip Das is an Assistant professor in the Department of Design, IIT Guwahati. He has completed Master of Design from Indian Institute of Technology Guwahati and Bachelor of Engineering from Nagpur University, securing the tenth rank in the university. He is currently pursuing his PhD in the area of Prototype Driven Innovation. His research interests are in the fields of Toys for tomorrow, Transformable Furniture, Packaging design and Product Development from aboriginal science. He is the course instructor for Masters and Bachelors courses titled 'Structural Packaging Design', 'Introduction to Toy Design', 'Tinkering Studio' and 'Model making and simulation' in IIT Guwahati.

Swati Pal is an Assistant Professor in the Department of Design, Indian Institute of Technology Guwahati, Assam, India, where she is currently teaching in their academic Design programs. She did her M.Sc. from University of Calcutta and completed her Ph.D. in Life Science in the area of Ergonomics from Gujarat University in the year 2010. Her doctoral thesis presents an exploration of physical, psycho-physical and cognitive aspects of human-computer interaction. She was appointed as a Post-Doctoral Fellow for three years in the Industrial Design Centre, Indian Institute of Technology Bombay, where she was actively involved in the field of Design Ergonomics research with reference to design for the Elderly. Her research interest are in the field of Ergo-design & Innovation, Physical and Cognitive Ergonomics, Design and Biomechanics, Occupational Health. She presented papers in the conferences both at National and International level and received best Paper award in the Young Scientist category in the International Ergonomics Conference HWWE 2011. Some of her research papers have also been published in the International journals.

Debayan Dhar is an Assistant Professor at the Department of Design, Indian Institute of Technology Guwahati. He is associated with Usability Engineering & Human Computer Interaction (UE-HCI) Lab at the Department of Design. He was awarded the Fulbright-Nehru Doctoral Fellowship in the year 2012 and conducted a part of his doctoral studies at the Department of Social Psychology at University of Texas at Austin under the supervision of Prof. Samuel Gosling. He works in Human Computer Interaction Design. His current research focuses on persuasion, instructional design, individual differences in technology adoption, Social cognition, web semantics and Psychological studies in Interaction design. He has completed his PhD in Human Computer Interaction Design from IIT Guwahati.

COURSE PLAN :

Week 1: Introduction to Innovation, Design Inspired Innovation and User Innovation, Product Design

Week 2: Introduction to User Study- Problem and Need Identification, Contextual Enquiry, Physical Model

Week 3: Importance and overview of Human Factors/ Ergonomics in Product Design

Week 4: Creative Techniques and Tools for Concept Generation and Concept Evaluation in Product Design