



DESIGN PRACTICE - II

PROF. SHANTANU BHATTACHARYA

Department of Mechanical Engineering
IIT Kanpur

TYPE OF COURSE : Rerun | Elective | UG/PG

COURSE DURATION : 8 weeks (23-Aug' 21 - 15-Oct' 21)

EXAM DATE : 24 Oct 2021

INTENDED AUDIENCE : Students of BE/ME/MS/BSc/MSc stream

INDUSTRIES APPLICABLE TO : SMIL (Gurgaon), HAL Kanpur and Lucknow, Small and medium scale production industries

COURSE OUTLINE :

The course is intended for beginners in post graduate studies in Design. It can also serve well for aspiring professionals in industry who will be willing to undertake careers in the field of design.

ABOUT INSTRUCTOR :

Prof. Shantanu Bhattacharya is currently as Associate Professor at the Department of Mechanical Engineering at the Indian Institute of technology Kanpur. Prior to joining the department he has been associated at a senior management level at Suzuki Motors and has over 6 years of experience in various production capacities and positions. Prof. Bhattacharya currently takes care of the 4-I laboratory at IIT Kanpur as its coordinator and has also been associated with the TA202 laboratory as coordinator between 2012-2015. Both these laboratories are very high end in terms of offering manufacturing training programs

COURSE PLAN :

Week 1 : Geometrical Transformations

Week 2 : 3-D shapes/ solid modelling

Week 3 : Micro-electro Mechanical Systems (MEMS)/ Sensors and actuators

Week 4 : Rapid Prototyping (3-D printing)/ Rapid tooling

Week 5 : Creating forms and their geometric transformation models

Week 6 : Strength and Stiffness of Structural Elements/ Mechanisms

Week 7 : Mechatronics/ Introduction to Control

Week 8 : Intelligent Product Design