

International Summer School Manipal University Jaipur [ISSMUJ]-2022

[Hybrid Mode]

Course Overview

Name of Course: Sustainable Product Development

Name of instructors: Dr. Avanish Singh Chauhan, Dr. Ashish Sharma and Dr. Ashu Yadav

Session: June-July 2022

Language of instruction: English

Number of contact hours: 36

Credit awarded: 03

Objective of Course

- Understand the methodologies for new product design, development and management.
- Demonstrate the approaches to satisfy voice of customer and enhance entrepreneurship skills.
- Develop a new product profile based on sustainability considerations.

Syllabus

New Product Development Process; Product Life Cycle; Intellectual Property Rights; Sustainable Development – Environmental, Social, Economic; UN SDGs; Identification of Voice of Customer; Perceptual Mapping; Kano Model; Quality Function Deployment; Design for X – Manufacturing, Assembly, Environment.

Organization of course

Total contact hrs 36		
1st week:	6 hrs (classes)	6 hrs (self-study/ discussion/tutorial)
2nd week:	6 hrs (classes)	6 hrs (mid term exam/assessment/discussion/tutorial)
3rd week:	6 hrs (classes)	6 hrs (end term exam/presentation/report)

Mode of lectures: Offline Lectures; Tutorial Sessions; Discussion.

Course Plan

Lecture no.	Topic	Lecture mode	Instructor(s)
L: 1-6	New Product Development Process; Product Life Cycle; Intellectual Property Rights.	Offline Lectures; Tutorial Sessions; Discussion	Dr. Avanish Singh Chauhan Dr. Ashish Sharma
L: 7-12	Sustainable Development – Environmental, Social, Economic; UN SDGs.	Offline Lectures; Tutorial Sessions; Discussion	Dr. Avanish Singh Chauhan Dr. Ashish Sharma
L: 13-18	Identification of Voice of Customer; Perceptual Mapping.	Offline Lectures; Tutorial Sessions; Discussion	Dr. Avanish Singh Chauhan
L: 19-24	Kano Model; Quality Function Deployment.	Offline Lectures; Tutorial Sessions; Discussion	Dr. Avanish Singh Chauhan Dr. Ashu Yadav
L: 25-30	Design for X – Manufacturing, Assembly, Environment.	Offline Lectures; Tutorial Sessions; Discussion	Dr. Ashish Sharma Dr. Ashu Yadav
L: 31-36	Project Presentation; Report/Paper Writing; Evaluation.	Tutorial Sessions; Discussion	Dr. Avanish Singh Chauhan Dr. Ashish Sharma Dr. Ashu Yadav

Brief profile of the instructors

Dr. Avanish Singh Chauhan, Assistant Professor, Automobile Engineering, MUJ B.E. (Industrial & Production Engineering) – SGSITS, Indore, M.Tech. (Manufacturing System Engineering) – MNIT Jaipur, Ph.D. (Industrial Engineering) – MNIT Jaipur
Academic & Research Experience: 7 Years



Dr. Ashish Sharma, Assistant Professor (SG), Mechanical Engineering, MUJ B.E. (Mechanical Engineering) – MITM, Indore, M.Tech. (Computer Integrated Design and Manufacturing) – NIT Jamshedpur, Ph.D. (Mechanical Engineering) – Manipal University Jaipur
Academic & Research Experience: 9 Years



Dr. Ashu Yadav, Assistant Professor (SG), Automobile Engineering, MUJ B.E. (Mechanical Engineering) – MDU, Rohtak, M.Tech. (Machine Design) – MDU, Rohtak, Ph.D. (Mechanical Engineering) – Manipal University Jaipur
Academic & Research Experience: 11 Years

