

PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems



Module PMRF-ISSS009

INTRODUCTION TO PRODUCT DESIGN

Name of the PMRF student

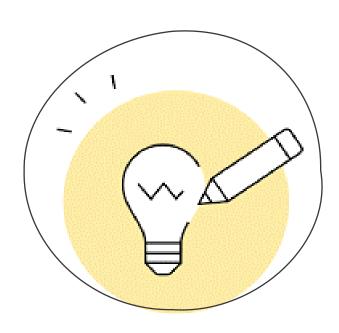
Vighneshkumar Rana, IISc

Required background of the students taught

- Undergraduate and postgraduate students of engineering (Any engineering background)
- Anyone curious to learn basic Product design principles (No pre-requisite)

Online session coordinator

Will be chosen from the list of registrants



Details of the content of the module

- Introduction: Definitions of Design, Products,
 Product Design, Examples, Problems, Areas of Product Design
- 2. Product life cycle, Introduction to systematic design process
- 3. Design Thinking and Problem Solving
- Opportunity identification and identify customer needs: Process, Techniques, Customer need, Relative importance of need, Results
- 5. Task Clarification: Identifying requirements, refine, extend, compiling, Setting up requirements list
- 6. Conceptual Design: Activity of concept generation, Steps, Reflect on solution
- 7. Concept Selection and Testing: Screening and Scoring, Testing procedures
- 8. Prototyping: Types, Principles, Technologies, Planning
- 9. Design for "X"
- 10. Product Design Research overview

Schedule of the module

Start Date: 1st Feb 2024

End date: April 2024

Every Friday: 5:00 – 6:30 pm

Discussion Class: Second and Fourth Saturday of the

month starting from 2:00 pm

Meeting link: Will be shared later

Contact email ID: <u>isss.forum@gmail.com</u>

Registration link:

https://docs.google.com/forms/d/e/1FAIpQLS ctoGQEdKPWrxuvpZofAgT3rnfX3jhtLXOqTQa8 AnKn7IMT2A/viewform