PMRF-ISSS Teaching Programme

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

Module PMRF-**ISSS062/II/2024**

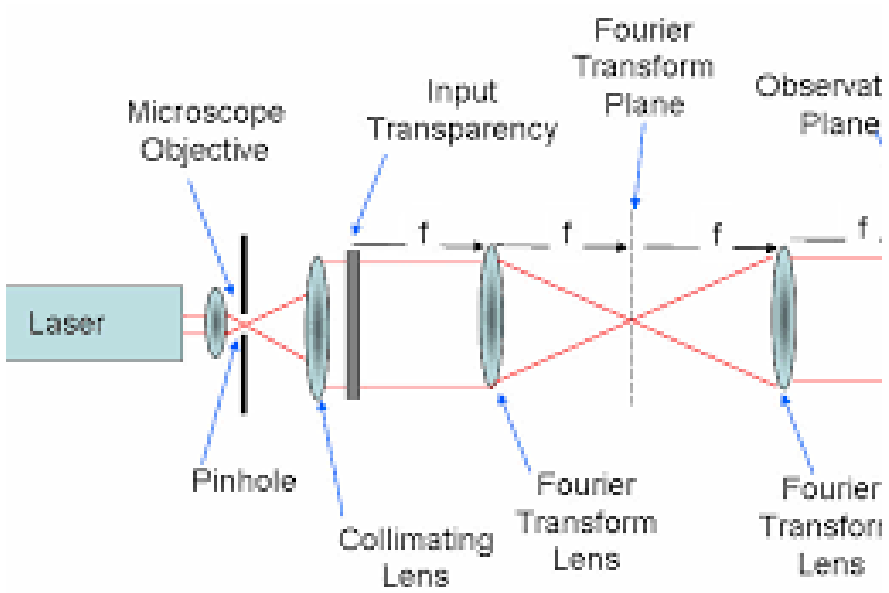
Signal Processing Concepts for Optics

Name of the PMRF student

Pragya Mishra

Required background of the students taught

Electrical Engineering, Electronics Engineering, Instrumentation Engineering, Physics Background



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Details of the content of the module

1. Introduction :Concept of Optics and Signal Processing
2. Fourier Optics : How the Fourier Theorems are applied in Optics
3. Analysis of Two-Dimensional Signals and Systems : Extension of Fourier optics to two-Dimensional Analysis
4. Fresnel and Fraunhofer Diffraction : Applications of Fourier Optics on Diffraction Study
5. Frequency Analysis of Optical Imaging Systems
6. Signal Flow Graph to solve optical structure : Analysis of Mason Gain Formula for complicated photonics structures
7. Applications

Schedule of the module

Days : Monday, Wednesday and Friday

Duration : 1.5-2 hours from 1st May to 26th June 2024

Duration of Course : 38-40 hours.

Meeting link : Will be shared later

Link

Contact email ID: pragyamishra@iisc.ac.in

Registration link:https://forms.gle/4YNjkZSLAhrJdrkt7