PMRF-ISSS Teaching Programme

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

Module PMRF-ISSS047/II/2023
Introduction to Integrated Optical Filters

Name of the PMRF student

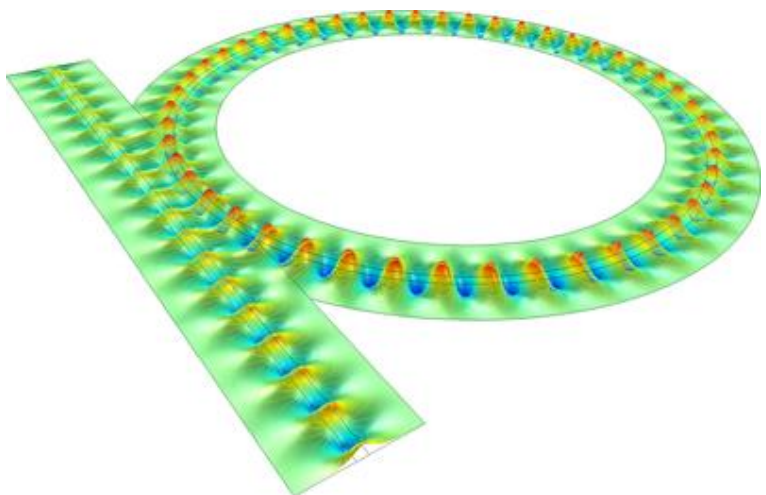
Pragya Mishra

Required background of the students taught

Engineering Background (ECE), Optics/Photonics

Online session coordinator

Will be chosen from the list of registrants



Source of image : https://www.comsol.com/model/optical-ring-resonator-notch-filter-22221

Details of the content of the module

This course will give a basic understanding of the Integrated Optical Filters having mm and micrometer wave applications. This is an advanced level course for students having understanding of basic photonic concepts. The course is useful for optical discipline of engineering as it covers the basic understanding of photonic filters and study of different photonic devices. This introductory course will also serve basics for many advanced courses on Microwave Photonic Filters.

Course Outline:

Week 1: Optical Filters: Basic Understanding

Week 2: AR, MA and ARMA Filters

Week 3: Photonic Analogous Devices For Filter realization

Week 4-5: Higher Order Filters

Week 6-7: Nested ring structures, Lineshapes and Various Filtering Applications

Schedule of the module

Start date: 26th Sep 2023

End date : 9th Nov 2023

Sessions: 2-2.5 hours /week

Day and Time of Course: Tuesday and Thursday (1800-1930 hrs)

Total Duration : 17-18 Hours

Meeting link : Will be shared later

Link

Contact email ID: mdivyaa12@gmail.com

Registration link: https://forms.gle/X7WNYrxzTN[redacted]A