PMRF-ISSS Teaching Programme

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

Module PMRF-ISSS058/2022

Overview of Experimental Techniques in Biology

Name of the PMRF student

Aishi Dasgupta

Required background of the students taught

- Undergraduate/Postgraduate students interested to pursue research in Biology, Biotechnology.
- Anybody curious to learn about experimental biology techniques

Online session coordinator

Will be chosen from the list of registrants

Details of the content of the module

This course is based on the applications and experimental aspect of molecular biology and biochemistry. It will explore concepts and techniques commonly used in chemical biology laboratories to validate their hypotheses. The most common laboratory techniques along with their theoretical backgrounds will be discussed along with the highlights of the field. This course will help students to learn beyond the textbooks and to understand the role of applied biological sciences in today's research.

- ➢ Molecular Biology & Genetic Engineering Techniques
- Basics of Recombinant DNA Technology
- Gel Electrophoresis
- Western Blotting
- ➢ Basics of Cloning
- Plasmid Isolation & PCR Amplification of gene
- Restriction Digestion and Ligation
- Bacterial Transformation & Screening for transformants
- Transformation of recombinant plasmid for protein expression
- Expression & purification of specific protein

Schedule of the module

Course Start date: 15th Feb, 2023 (tentative)

Course End date: 27th April, 2023 (tentative)

Lecture days: Wednesday and Thursday

Time: 6:30 pm – 7:30 pm or 7:30 – 8:30 pm

Lectures, Doubt-Clearing Sessions

Meeting link : Will be shared later

Link:

Contact email ID: isss.forum@gmail.com

Registration link: https://forms.gle/jJ2aiKpDtvDJUQwb6