

# PMRF-ISSS Teaching Programme

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



Module PMRF-ISSS001/2022

## Introduction to Cellular and Molecular Neuroscience

Name of the PMRF student

### Vanika Dhingra, IISc

#### Required background of the students taught

- Undergraduates & Postgraduates in Biological Science
- Anybody curious to learn the basic biology of the brain

#### **Online session coordinator**

### Will be chosen from the list of registrants



#### Details of the content of the module

- 1. Brief history of neuroscience
- 2. Cellular organization of nervous system
  - Structure of Neuron
  - Neuronal classification
  - Non-neuronal cells
- 3. Neuronal membrane at rest
  - Ionic basis of resting membrane potential
- 4. Action Potential
- 5. Neurotransmitter
  - Synthesis, storage & release
- 6. Neurotransmitter receptors & effectors
- 7. Principles of synaptic transmission & integration
- 8. Molecular mechanism of Learning and Memory

#### Schedule of the module

Start date: 17-February-2022

End date: May-2022

Lecture: Thursday 6:00 - 7:00 pm

Discussion class: First Wednesday of the month from

6:00 - 7:00 pm

Meeting link: Will be shared later

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

Registration link:

https://forms.gle/TUPJxUA459Wkuw2y7