

PMRF-ISSS Teaching Programme

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



Module PMRF-ISSS019/II/2024

An Introduction to Battery Management Systems

Name of the PMRF student

Himanshu Bhusan Sandhibigraha

Required background of the students taught

Electrical, Electronics, and Aerospace Engineering

Electric vehicle (EV) enthusiasts are welcome!!



Details of the content of the module

- 1. Introduction to Lithium-Ion batteries
- 2. Battery Management Systems (BMS)
- 3. Functionalities of BMS
 - a. Measurements
 - b. Management
 - c. Evaluation
- 4. BMS topologies
- 5. State of Charge (SoC) estimation

The course includes the implementation of basic SoC estimation algorithms in MATLAB.

Schedule of the module

Start Date: 7th March 2024

End Date: 6th April 2024(Tentative)

Class Timings: 7:00 – 8:00 PM (Thursday & Saturday)

Duration: 15 hours

No. of Lectures: 10

Contact: himanshubs@iisc.ac.in



Meeting link: Will be shared later

Link

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

Registration link:

https://forms.gle/ukC3X2M9YDPAMVfG9