PMRF-ISSS Teaching Programme

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

Module **PMRF-ISSS003/IV/2026**

Reliability challenges in power GaN devices

Name of the PMRF student

Mehak Ashraf Mir

Required background of the students taught

Graduate course: EE, ECE, Physics and other related departments

Details of the content of the module

Day 1: Introduction to GaN power devices

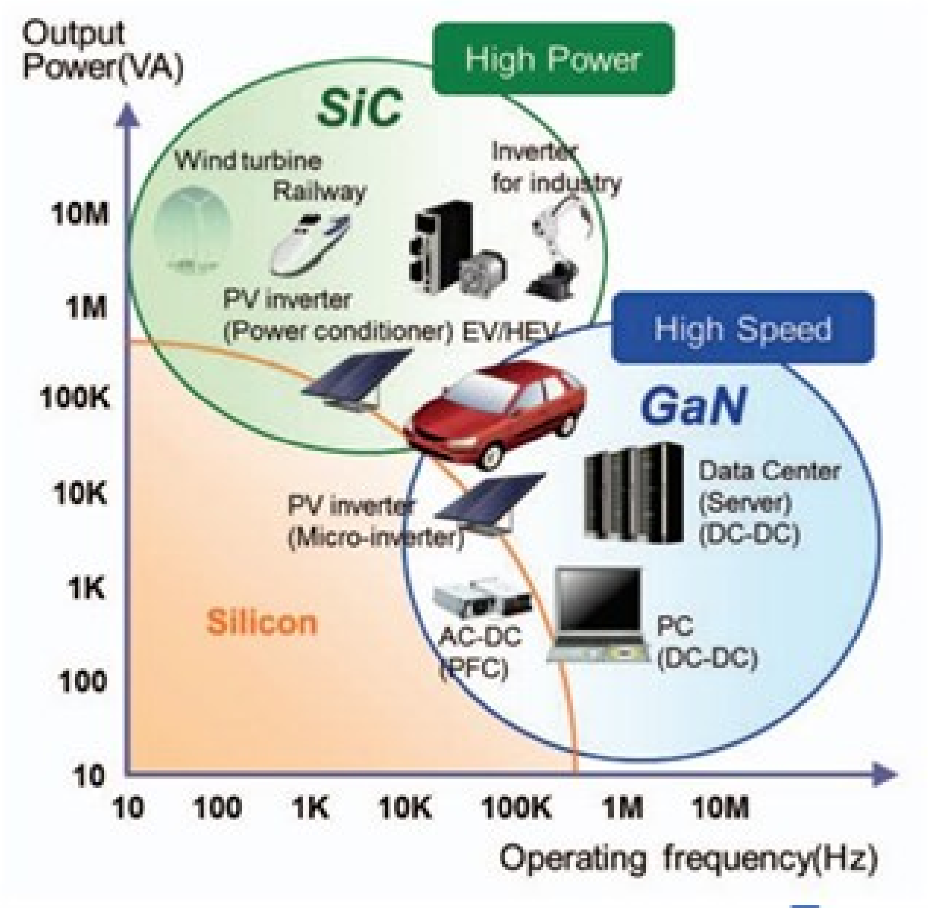
Day 2 : Reliability overview
Day 3 : OFF state reliability
Day 4 : Current collapse

Day 5 : Hot carrier reliability
Day 6 : Gate stack reliability
Day 7: OFF state 3T breakdown

Day 8 : Current injection based reliability

Day 9 : ESD reliability

Day 10: Cryogenic reliability



Schedule of the module

Start Date: 15th January 2026 Tentative
End Date: 31st January 2026

Day: Recorded Lectures will be uploaded each day

Time: 7 PM – 8 PM IST

Meeting link : Will be shared later

Contact email ID: isss.forum@gmail.com

Registration link:

https://docs.google.com/forms/d/1foM1zZ7sMp W5uQ0ifYv4DqA-pd4bYK7kkFx1NquZpWY/edit