



Module PMRF-ISSS014/V/2026

Multivariable Stability Assessment for Power Converter Applications

Name of the PMRF student

SURJAKANTA MAZUMDER

Required background of the students taught

B.Tech/ M.Tech in Electrical Engineering. Basic understanding of Basic idea about Semiconductor Physics, Circuit Theory, and Power Electronics is necessary.

Online session coordinator

Will be chosen from the list of registrants

Multivariable Stability Assessment for Power Converter Applications



Details of the content of the module

This course is dedicated for Electrical Engineers who has keen interest in Power Electronic Converter Control.

Week 1-2: Aspects of Stability Assessment and its Impact on Power Converters

- Stability Assessment of Linear Dynamic System
- Impact of Stability Assessment on Power Converter Application

Week 3-5: Multivariable Stability Assessment

- Importance of Multivariable Stability Assessment for Power Converter Application.
- Dynamic model development for Multi-Input-Multi-Output System.

Week 6-7: Few Case Studies

- Multi-phase Converters
- Multi-level Converters

Schedule of the module

Start Date: 18th April 2026

End Date: 31st May 2026 (Tentative)

- Regular Classes
 - Weekly, Saturday and Sunday: 10am to 11.30am (Lecture: 10am to 11.15am, Doubt Solving: 11.15am-11.30am)
 - Make-up Class or Extra doubt-solving session (If Required)
 - Tuesday and Friday: 7pm to 8.30pm

Meeting link : Will be shared later

Contact email ID: issf.forum@gmail.com

Registration link:
<https://forms.gle/VUHMBrWipvjy46vP7>