



Module PMRF-ISSS052/2022

AC-DC Power Factor Correction Converters

Name of the PMRF student

HIMANSHU BHUSAN SANDHIBIGRAHA

Required background of the students taught

Electrical, Electronics, and Aerospace
Engineering

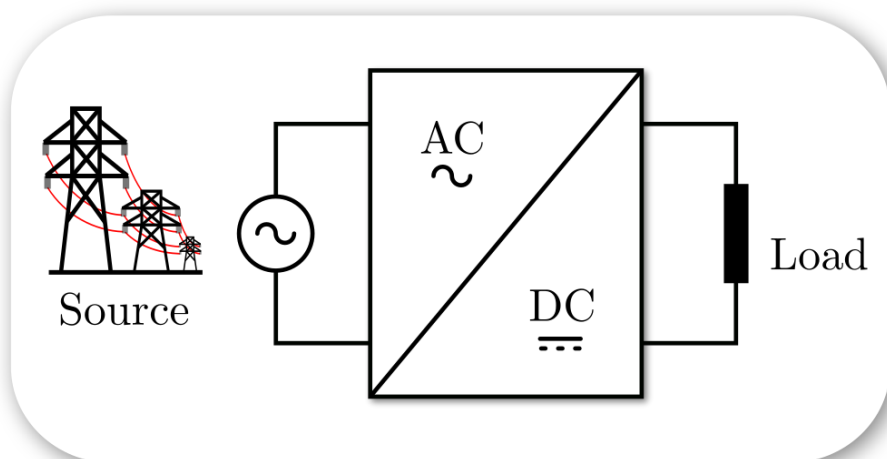
Pre-requisites: Basic circuit theory

Details of the content of the module

1. Introduction to AC-DC Power Conversion
2. Diode rectifier circuits:
 - Half wave rectifier
 - Full wave rectifier
 - Impact of output side filter
3. Boost PFC Converter:
 - Review of DC-DC boost converter
 - Boost PFC converter circuit operation
4. Modulation techniques:
 - CCM, CrM, DCM, Hysteresis control
5. Advanced boost PFC converter topologies

Online session coordinator

Will be chosen from the list of registrants



Schedule of the module

Start Date: 21st January 2023

End Date: 26th February 2023 (Tentative)

Class Timings: 3:00 – 4:30 PM (Saturday and Sunday)

Duration: 15 hours

No. of Lectures: 10

Contact: himanshubs@iisc.ac.in

Meeting link : Will be shared later

[Link](#)

Contact email ID: iiss.forum@gmail.com

Registration link:

<https://forms.gle/jw69fZwNyLDEJGvY6>