PMRF-ISSS Teaching Programme

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

Module PMRF-ISSS023/2023

Introduction to Control Systems

Name of the PMRF student

Bazeela Banday

Required background of the students taught
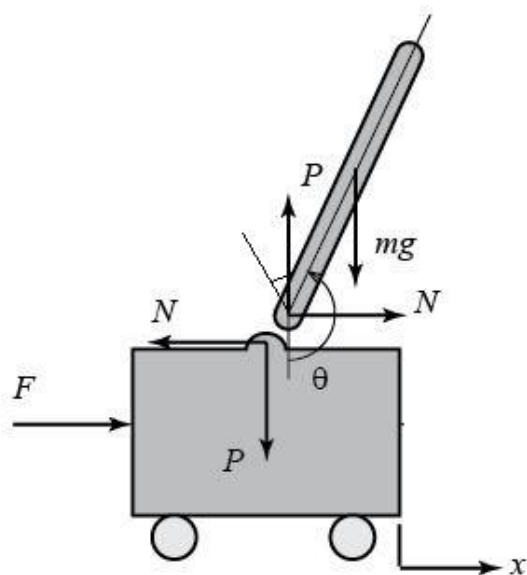
Basic knowledge of differential equations
Basic knowledge of Laplace Transforms

Online session coordinator

Will be chosen from the list of registrants

Details of the content of the module

• Module 1 – Introduction to Control Systems, Block Diagrams, Laplace Transform, Transfer Function of systems, Linear Systems, Poles and Zeros, First and Second Order Systems.

• Module 2 – Zero input response of a LTI system, Zero state response of a LTI system, Stability of a LTI system, Types of stability, System Analysis using Laplace Transform.

• Module 3 – Second Order Systems, Time Response Characteristics, Influence of zeros and poles on system response.

• Module 4 – Root Locus Technique, Steady State Errors, Routh Hurwitz Criterion, Controller Design.

• Module 5 – Introduction to State Space Approach.

Schedule of the module

Start Date: Sep 18, 2023

Live lectures will be conducted (or recorded lectures uploaded) on Tuesdays and Thursdays at 11:00 AM to 12:30 PM (30 Lectures)

End Date: Tentatively by Dec 30, 23

Total lecture hours : 45 (approx.)

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

Registration link:
https://forms.gle/fmSUGrUwRgN3pJ388