



Module PMRF-ISSS080/II/2024

Robotics and Controls

Name of the PMRF student

Aman Singh

Required background of the students taught

This course is ideal for 2nd-year undergraduate engineering students from any branch who are interested in robotics.

Others are also encouraged to take the course.



Robotics and Controls

Details of the content of the module

List of Topics to be covered:

1. Python Basics
2. Coordinate Frames and Homogeneous Transformations
3. FK and IK (2D manipulators, Differential Drive)
4. Jacobian and its applications
5. Dynamics and Euler-Lagrangian Equations
6. Optimization, Trajectory optimization and Trajectory generation
7. Feedback Linearization
8. Linear Control
9. Understanding 3D motions
10. D-H Algorithm for manipulators

Schedule of the module

Lecture videos will be uploaded every week at 5pm on Tuesday and 5pm on Thursday.

Start Date: June First week

End date: September Last week

Meeting link : Will be shared later

Link

Contact email ID: issforum@gmail.com

Registration link:

<https://forms.gle/Krskckvqyb8jA9347>