Course: Control Engineering

Course Code: noc21-ee05

Session: 2020-21

Duration: 12 Weeks

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week 1:
- Mathematical Modelling of Systems

Week 2:
- Laplace Transforms
- Transfer functions
- Block diagram representation.

Week 3 :
- Block diagram reduction
- Time response characteristics.

Week 4 :
- Introduction to stability
- Routh Hurwitz stability criterion

Week 5 :
- Root locus plots
- Stability margins.

Week 6 :
- Frequency response analysis: Nyquist stability criterion
- Bode plots and stability margins in frequency domain.

Week 7 :
- Basics of control design
- The proportional
- Derivative and integral actions

Week 8 :
- Design using Root Locus

Week9 :
- Design using Bode plots

Week 10 :
- Effects of zeros, minimum and non-minimum phase systems.

Week 11 :
- State space analysis

Week 12 :
- Design using State space

List of students enrolled

S. No	Name of Student
1	Bharat Kumar
2	Gaurav Kumar Khandelwal
3	Prashu Jain
4	Rishi Bhargav
5	Ritik Khandelwal
6	Rudraksha Sharma
7	Shubhi Samaria
8	Shivam Kumar Gaur
9	Poorvaja Verma
10	Vishal Singh