CHEMICAL PROCESS CONTROL

COURSE OUTLINE:
In this course, we will begin with the dynamic analysis of chemical engineering systems which will tell us how these systems behave. After knowing their behavior, we will move to controlling this behavior as per our choice with the help of a control system. Lastly, using advanced controller, we will see how this can be achieved in the most intelligent way.

ABOUT INSTRUCTOR:
Professor Sujit Jogwar is an Assistant Professor in the Department of Chemical Engineering at IIT Bombay. He has 12+ years of research experience in the area of advanced process control. He has taught chemical process control course in academia as well as industry.

COURSE PLAN:
- Week 01: Introduction to process dynamics and control
- Week 02: First order dynamic systems
- Week 03: Second and higher order dynamic systems
- Week 04: Introduction to feedback control
- Week 05: Stability analysis
- Week 06: Feedback control design
- Week 07: Advanced control topics
- Week 08: Multivariable and batch process control

TYPE OF COURSE: Rerun | Core | UG
INTENDED AUDIENCE: Chemical Engineering, BE (Chem Engg)
PRE-REQUISITES: Material and Energy balances

COURSE DURATION: 8 weeks (17 Aug’20 - 9 Oct’20)
EXAM DATE: 18 October 2020