

COURSE	Name	: Process Control Systems
	Code	: EE184926
	Credits	: 3
	Semester	: Elective

Description of Course

Process Control System course gives an introduction to process system and their arrangement to the students of electrical engineering. In this course, modeling of commonly found processes in industries are presented, including the analysis methods of the system behavior. The final part describes the controller design methods, among which are PID controllers that are widely used in industry.

Learning Outcomes

Knowledge

(P02) Mastering the concepts and principles of engineering, and implementing them in the form of procedures for analysis and design in power systems, control systems, multimedia telecommunications, or electronics.

Specific Skill

(KK02) Able to describe the completion of engineering problems in power systems, control systems, multimedia telecommunications, or electronics

General Skill

(KU12) Able to implement information and communication technology (ICT) in the context of implementation of his/her work

Attitude

(S12) Working together to be able to make the most of his/her potential

Course Learning Outcomes

Knowledge

Mastering the concepts and theories of analysis and design of process control system

Specific Skill

Able to model, analyze, and design process control systems

General Skill

Able to realize control system for process system using softwares

AttitudE

Working in team to maximize possible possessed potential.

Main Subjects

1. Introduction to Process Control System
2. Mathematical process model
3. Model based controller
4. Control loop

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5. Conceptual design of Process Control System
 6. Design the simulation of Process Control System
 7. Design the implementation of Process Control System
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Reference(s)

- [1] Babatunde A. Ogunnaike, Process, Dynamics, Modeling and Control, 1994.
 - [2] Wolfgang Altmann, "Practical Process Control for Engineers and Technicians," John Elsevier, 2005
 - [3] W.L. Luyben, "Process Modeling, Simulation and Control for Chemical Engineers," McGraw Hill, 2nd edition, 1990
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Prerequisite(s)

EE184404 Introduction to Control Systems
