



Programmable Logic Controller S7-1200 for Industrial Automation and Renewable Energy Field

Course number	7227
Hours per week:	4
ECTS:	5
Scheduled:	Summer Term
Format:	Lecture/ seminar presentations / lab practice
Examination:	Written/Oral exam/Project Presentations
Lecturer:	Dodiek Ika Candra
Objectives:	<ul style="list-style-type: none">• Describing automation process of sample plants• Configuring hardware-software of sensors and actuators in sample plants• Ability to work with PLC Siemens S7 in industrial and renewable energy cases
Contents:	<ul style="list-style-type: none">• Problem definitions, simulations, and control solutions for industrial automation and renewable energy fields• Introduction to Industrial automation• Process description of sample plants• Hardware -software configurations• S7-1200 instructions• S7-1200 extended instructions• Applying PLC S7-1200 for some industrial automation cases• Applying PLC S7-1200 for some renewable energy cases• Project management – documentation and archiving
Pre-requisites	Proficiency in working with Windows OS, basic knowledge of PLC
Recommended Reading:	<ul style="list-style-type: none">• Berger, H., "Automating with SIMATIC: Controllers, Software, Programming, Data Communication Operator Control and Process Monitoring", Publicis; 3 edition (December 13, 2006), ISBN-10: 3895782769• Müller, Jürgen, "Controlling with SIMATIC: Practice Book for SIMATIC S7 and SIMATIC PCS7 Control Systems ",Wiley VCH; 1 edition (10 Aug. 2005), ISBN-10: 3895782556