PLC S7 for Industrial Application and Renewable Energy

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:	- 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:	- 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:	- 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