

**IN INTELLIGENT CONTROL AUTOMATION OF PROCESS SYSTEMS  
AS CENTER OF PROGRAMMABLE LOGIC CONTROLLER TRAINING  
UNDER ERASMUS+ ASEAN FACTORI 4.0 PROJECT**



The Erasmus+ Program for ASEAN FACTORI 4.0 Project enables a cooperation between Chulalongkorn University and University of Ruse “Angel Kanchev”, Bulgaria. The coordination of the training activities, technical support, and the knowledge enhancement towards Programmable Logic Controller (PLC) makes a significant impact on the students to be familiarized with an understanding of PLC. Objective: To develop basic knowledge of PLC and implementation through the modification of existing three courses:

1. Industrial Automation (Electrical Engineering Undergraduate Program),
2. Process Dynamics and Control (Chemical Engineering Undergraduate Program)
3. Instrumentation in Chemical Process (Chemical Engineering Graduate Program).

Students shall be trained to gain sufficient practice on PLC languages and human-machine interface.

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PLC hand-on laboratory contains workstations equipped with 4 computers and 4 notebooks, PLC unit and networking devices. A PLC training aims to familiarize vocational staff and students on how signals from input devices interface with PLC to invoke certain actions.

PLC hand-on laboratory aims to enhance the students' learning of methods to measure and analyze control variables. The PLC training course emphasizes the role of programmable logic controllers, integrating the concepts of transfer functions, system response, stability, offset error, and controller design into common practice.

**ASEAN FACTORI 4.0**

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