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# From Automation and Control Training to the Overall Roll-Out of Industry 4.0 Across South-East Asian Nations

# (ASEAN FACTORI 4.0)

**PROJECT No. 609854-EPP-1-2019-1-FR-EPPKA2-CBHE-JP**

**Teaching Done by EU (Seminar 1) on April 8, 22, 29, 2021**

To ensure the success of the modification to the mentioned three courses, several important steps were taken. First and foremost, the staff underwent comprehensive training to enhance their proficiency in Programmable Logic Controllers (PLCs), enabling them to develop and deliver high-quality lessons to the students. This training aimed to equip the staff with the necessary knowledge and skills to effectively teach PLC-related topics.

Furthermore, the same PLC approach was shared with professionals working in the field of automation. This enabled them to provide valuable insights and recommendations on how Chulalongkorn University (CU) could best deliver PLC knowledge to its graduates, ensuring their preparedness for the industry upon graduation.

Through the introduction of this project to Chulalongkorn University, this training primarily focuses on familiarizing participants with programmable logic controllers, sharing best practices in establishing a Center of Excellence, and designing new curricula. Tailored for CU students and staff, this training is facilitated by EU partners.

The project training component primarily relied on benchmarking and laboratory learning. Due to travel restrictions, Claude Bernard University Lyon 1, France, arranged a training via Zoom application that focused on developing a Center of Excellence and crafting new curricula based on best practices.

The training sessions was conducted by associate partners from the University of Ruse “Angel Kanchev,” Bulgaria, and Universite Grenoble Alpes, France. Each session lasted for two hours, aiming to emphasize the advantages of adopting a tuning approach in designing new curricula and implementing teaching methodologies through a Center of Excellence. The training started with concept of Industry 4.0 PLC network extensions and real time constraint, Introduction to the modern telecommunication networks, PLC history languages, and PLC Industrial networks.

A combined total of 81 students from Department of Electrical Engineering and Department of Chemical Engineering took part in this seminar.

