Dissemination

Visiting Siam Michelin Company Limited - Rayong Factory (RYG)

As the team had passed seminar and training, the content of both seminar and internship for MFU students were to be made to distributed to the modified courses. In this process, two works were to be done: the first was to discuss with an auto industry about the workforce requirements, the second was to review of lecture and lab of the staff training with account to the industry's opinion. These processes were done during June – July 2022.

The meeting with an auto industry was done on June 28, 2022 at a site of Siam Michelin Company Limited - Rayong Factory (RYG) which is located in EEC. A meeting session was hold with the following participants:

- Mr. Tanaporn Sillapa-Archa IT Manager and Digital Learder, Siam Michelin Company Limited Rayong Factory (RYG)
- Assoc. Prof. Dr. Punnarumol Temdee Mae Fah Luang University
- Assoc. Prof. Dr. Nattapol Aunsri Mae Fah Luang University
- Asst. Prof. Dr. Roungsan Chaisricharoen Mae Fah Luang University
- Dr. Chayapol Kamyod Mae Fah Luang University

The session included discussion and plant touring. The summarized of this activity was as followed.

Most industries in Thailand Eastern Economic Corridor (EEC) which is the special industrial area benefitted by Government's tax and logistic policy are gearing toward Industry 4.0. This will require new wave of workforce with the combine skill in automation and computing which is now in extreme shortage. The boundary between automation staff and IT related staff is now virtually non-existed as the tasks are most blended. This will affect the requirement of new staff and also will increase the demand of updating the current staffs.



(Siam Michelin Company Limited - Rayong Factory (RYG))



(Siam Michelin Company Limited - Rayong Factory (RYG))

The key concept of accreditation was then focused to included automation knowledge and skills into our current computing programs. The contents in EU training were analyzed with the focused content from the seminar. Finally, the target contents to be included in the modified curriculum were listed as follow:

- Concept of Industry 4.0
- Introduction to Industrial Hardware and Software
- Principle of Industrial Network and Communications.
- Electrical System for Industrial
- Safety Standards
- Software and Programming for Industrial Automation
- Industrial equipment and sensors
- Plant emulation
- Process monitoring and control
- Industrial programming for automation
- Robotic and automation for industrial
- Automation simulation
- Automation verification
- Industrial control system
- Precision control in automation
- Practical AI in industrial control

Mae Fah Luang University Factori 4.0 webpage link:

http://factori40-itschool.mfu.ac.th/



Facebook page Factori 4.0 MFU link: <u>https://www.facebook.com/Factori4.0MFU/</u>









The Facebook page "Factori 4.0 MFU" is a page dedicated to promoting the Factori 4.0 project funded by Erasmus+. Erasmus+ is a program of the European Union that supports education, training, youth, and sport initiatives. The Factori 4.0 project focuses on the field of Industry 4.0, which refers to the integration of advanced technologies and automation into manufacturing processes.

The Facebook page serves as a platform to share information, updates, and news about the Factori 4.0 project. It may provide details about the objectives, activities, and outcomes of the project. The page might also showcase the involvement of Mae Fah Luang University (MFU) in implementing the project and collaborating with other partners.

By following or visiting the Facebook page, users can stay informed about the progress of the Factori 4.0 project, learn about relevant events, access resources, and engage with the project's community. It serves as a channel for communication and dissemination of information related to the project's activities and outcomes.

International Conferences

Organizing a Special Session in ECTI Conference DAMT 2022, 2023, and Round Table Meeting: Exploring the Interplay of Factori 4.0 in the Industry 4.0 Domain

The rapid advancement of technology has ushered in the era of Industry 4.0, where automation, data exchange, and emerging technologies converge to transform manufacturing and other sectors. The integration of cyber-physical systems, Internet of Things (IoT), artificial intelligence, and big data analytics has given rise to the concept of Factori 4.0, which represents the intelligent and interconnected factory of the future. Recognizing the significance of this domain, we propose organizing a Special Session in the ECTI Conference DAMT 2022 and 2023, along with a Round Table Meeting, to delve into the various aspects of Factori 4.0 within the context of Industry 4.0.

Objectives: The primary objectives of organizing the Special Session and Round Table Meeting are as follows: a. Provide a platform for researchers, academicians, industry professionals, and practitioners to exchange knowledge, insights, and advancements in Factori 4.0 and its applications in the Industry 4.0 domain. b. Foster collaboration and interdisciplinary discussions among participants to explore innovative solutions, best practices, and challenges in implementing Factori 4.0 technologies. c. Enhance the understanding of the organizational, economic, and societal implications of Factori 4.0 in the context of Industry 4.0. d. Promote networking opportunities and the dissemination of research findings, enabling potential collaborations and partnerships among participants.

Session and Meeting Format: a. Special Session: The Special Session will be conducted as a dedicated track within the ECTI Conference DAMT 2022 and 2023. It will feature paper presentations, keynote speeches, and panel discussions focused on Factori 4.0 and its role in the Industry 4.0 landscape. Researchers and industry experts will be invited to submit original research papers aligned with the session's theme for review and presentation. b. Round Table Meeting: The Round Table Meeting will be a separate event held in conjunction with the conference. It will bring together key stakeholders, industry leaders, policymakers, and researchers for in-depth discussions on specific topics related to Factori 4.0. The meeting will facilitate open dialogue, idea sharing, and collaborative problem-solving to address the challenges and opportunities in implementing Factori 4.0 technologies in diverse industries.

ECTI Conference DAMT 2022: Jan 26-28, 2022 (Webinar)





ECTI Conference DAMT 2023: 22-25 March 2023 (Phuket, Thailand)

The Special Session and Round Table Meeting will cover a wide range of topics related to Factori 4.0 in the Industry 4.0 domain. Some of the key areas of interest include, but are not limited to: a. Cyber-physical systems and their applications in smart factories. b. Internet of Things (IoT) and its impact on industrial automation and control. c. Artificial intelligence and machine learning for intelligent manufacturing systems. d. Big data analytics and predictive maintenance in the context of smart factories. e. Human-robot collaboration and worker safety in the Industry 4.0 era. f. Supply chain optimization and logistics management in smart manufacturing. g. Security, privacy, and data governance in the interconnected factory environment.

Round Table Meeting :18 January , Bangkok



Outcomes: a. Publication opportunities: Accepted research papers presented at the Special Session will be included in the conference proceedings and may be considered for further publication in relevant journals or special issues. b. Networking and collaboration: The events will provide ample networking opportunities for participants to establish connections, foster collaborations, and exchange ideas with experts in the field. c. Insights and knowledge sharing: Participants will gain valuable insights, cutting-edge knowledge, and best practices in Factori4.0 and its applications in the Industry 4.0 domain through paper presentations, keynote speeches, and panel discussions. d. Recommendations and guidelines: The Round Table Meeting will result in the formulation of recommendations, guidelines, or policy suggestions to address challenges and foster the adoption of Factori 4.0 technologies in industries.

Organizing a Special Session in the ECTI Conference DAMT 2022, 2023, and a Round Table Meeting dedicated to Factori 4.0 in the Industry 4.0 domain offers a valuable opportunity to explore the interplay of advanced technologies in shaping the future of manufacturing. By bringing together experts, researchers, industry professionals, and policymakers, the events aim to facilitate knowledge exchange, collaboration, and the development of innovative solutions. The outcomes of these sessions and meetings have the potential to drive advancements in Factori 4.0 and contribute to the successful implementation of Industry 4.0 initiatives.