

Curriculum Development of Master's Degree Program in Industrial Engineering for Thailand Sustainable Smart Industry



Meeting Minutes Report

Meeting Subject:	Project Executive Committee (PEC) Meeting			
Date of Meeting:	March 2, 2020	Time:	15:00-18:00 (GMT+7)	
Minutes Prepared by:	Duangthida Hussadintorn Na Ayutthaya	Location:	https://us02web.zoo m.us/j/86022305022? pwd=YjZBQVVIVTFhdl BnazY1R3o5cWxXdz0 9	
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1. Attendance at Meeting

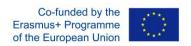
Name		University	
Dr. Pisut Koomsap (PC: Project Coordinator)		Asian Institute of Technology	
2. Dr. Huynh Trung Luong (Invitee)			
3.	Ms. Duangthida Hussadintorn Na Ayutthaya (Secretary)	,	
4.	Dr. Wichai Chattinnawat (Member)	Chiang Mai University	
5.	Prof. Tomasz Nitkiewicz (Member)	Częstochowa University of Technology	
6.	Prof. Kanchana Sethanan (Member)	Khon Kaen University	
7. Prof. Athakorn Kengpol (Member)		King Mongkut's University of Technology North Bangkok	
8.	Prof. Thanate Ratanawilai (Member)	Prince of Songkla University	
9.	Dr. Apiwat Muttamara (Member)	Thammasat University	
10. Prof. Tom Savu (Member)		University POLITEHNICA of Bucharest	
11. Prof. Livia Lazar (Invitee)			
12. Prof. Rui M. Lima (Member)		University of Minho	

2. Purpose of Meeting

- (1.) To update the overall progress of each WP to PEC by QCMB
- (2.) To update the progress of WP2, WP3
- (3.) To discuss on the organization of the short-course training during the COVID-19 pandemic
- (4.) To discuss on the organization of the PAEE/ALE' 2020 Conference during the COVID-19 pandemic
- (5.) To inform and discuss on the current issues of the project
- (6.) To update the financial statement with the PEC members



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3. Meeting Agenda

- (1.) The overall progress of WP 3, presented by WP 3 leader
- (2.) The overall progress of each WP, presented by QCMB
- (3.) Action on WP 2
- (4.) Action on Task 5.5 Joint short-term courses in the field of IE for professionals
- (5.) Organizing the PAEE/ALE' 2020
- (6.) Financial statement
- (7.) Other business

4. Meeting Notes, Decisions, Issues

Dr. Pisut Koomsap, project coordinator (PC), welcomed all to the PEC meeting. PC invited Dr. Huynh Trung Luong, WP3 leader, to report the progress of WP3 to PEC. He also invited Prof. Livia Lazar, WP4 leader, to report the overall progress of all WPs to the PEC.

(1.) The overall progress of WP 3, presented by WP 3 leader

Meeting Notes: Dr. Luong reported to PEC on the current status of the seven tasks as follows.

- Complete Tasks: Task 3.3 Developing a web-portal for online learning, Task 3.4 Training of staff
 on new tools and best practice exchange on modern teaching techniques, Task 3.6 Purchasing
 and installing teaching equipment
 - o For Task 3.4, Prof. Tom raised that the training in UPB was missed because of the COVID-19 pandemic. The situation moved the 6th MSIE 4.0 regular meeting to the online platform. However, he suggested that the training should not be canceled and can be conducted in an online format. He further mentioned about the possible topics. PC underlined that the topic must be related to data acquisition. Prof. Tom, then, said that he will update with PEC on the suitable topics next week.
- On-going Tasks: 3.1 Developing teaching materials, Task 3.2 Translating teaching materials, Task 3.5 Adapting learning materials developed to the online learning, Task 3.7 Developing a laboratory and online remote access of the laboratory works
 - For Task 3.1, Dr. Luong reported that teaching materials of many courses have not yet been uploaded on the project website.
 - o For Task 3.7, Dr. Luong added more information on the development of the Automated Storage and Retrieval System (ASRS) Unit. PC also added on the information of the current bidding for robot arms. He explained that the announcement was posted publicly on the project website and the institute website since the beginning of May 2020. The procurement is expected to be wrapped up by the second week of June and the robots should be delivered to the lab by the end of July.



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For Task 3.5, Dr. Luong reported that the issue of Task 3.5 was discussed in the previous meeting section where the members suggested to adjust the current syllabus and modules for some courses to be offered in the online learning platform. He sought suggestions from PEC members. PC provided information related to this task and suggested Dr. Luong to further discuss with all the course leaders. Dr. Luong then requested to have an online meeting to solve this issue next week.

Decisions: The last training – organized by UPB – will be conducted online. The issue on Task 3.5 will be discussed and figured out among the course leaders in an online meeting next week.

Issues: As explained above.

(2.) The overall progress of each WP, presented by QCMB

Meeting Notes: Prof. Livia – WP4 leader – reported on each WP as follows.

- <u>WP2</u>: Prof. Livia requested to provide evidence on Task 2.2 Developing courses and course learning outcomes based on a matrix that maps course learning outcomes with program learning outcomes, and also teaching and learning methods. She also requested to obtain the evidence on the following tasks: Task 2.3 Conducting pilot test of the key courses, Task 2.4 Assessment of pilot test of the key courses and finalize the curriculum and the courses, Task 2.5 Preparation for accreditation of the curriculum.
 - For Task 2.5, PC briefly explained the overall commitment from all Thai partner universities and mentioned that it was clearly explained in the mid-way report.
- <u>WP3:</u> Prof. Livia underlined that she found no information for Task 3.2 Translating teaching materials. Also, for Task 3.4 Training of staff on new tools and best practice exchange on modern teaching techniques, there is no record on the evaluation of the training conducted at UMinho and CUT. Besides, she requested WP3 to develop a questionnaire to evaluate Task 3.6 Purchasing and installing of teaching equipment.
- <u>WP4:</u> Regarding the external auditor, Prof. Livia said that it is in the process of signing. Her concern was only on the possibility for the auditor to travel to Thailand during the COVID-19 pandemic. However, she saw the possibility to move all interview sessions to an online platform.
- <u>WP5:</u> Prof. Livia reported no update for the dissemination events and publications reports since April 10, 2019.
- Besides, Prof. Livia pointed out the general aspects that must be taken into account.
- Prof. Tom requested Prof. Livia to prepare a to-do list for each WP and circulate it among the WP leaders next week.

Decisions: For Task 2.2, PC suggested the WP2 leader put evaluation results from the syllabuses of the sixteen courses on the annex section of the report. For Task 2.3, WP2 co-leader initiated to put the reports on the pilot tested courses from the instructors (presented in the 5th and/or the 6th regular meeting) on the project website as the Outcome 2.3. For Task 2.4, PC suggested the WP2 leader upload the surveys' results from instructors and students on the project website. For Task



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3.6, WP2 co-leader responded that the questionnaire will be circulated to all Thai partners when the last sets of teaching equipment have been sent to them. Prof. Livia will prepare a to-do list for each WP.

Issues: None
(3.) Action on WP 2

Meeting Notes:

- The action to be taken on Task 2.3 were assigned to WP2 co-leader. He will create an internal page (on the project website) showing reports on the pilot tested courses.
- Regarding the action to be taken on Task 2.4, PC suggested Prof. Tomasz (WP 2 leader) to prepare suggestions for improvement based on the feedback collected from the student survey and discuss with the instructors of the pilot tested courses. In this regard, Prof. Rui pointed out that based on student feedback from his pilot test course the feedbacks tend to be related to the way of teaching, not about the teaching material. PC then suggested analyzing the feedback on two dimensions: content and teaching method. He further explained that when a course is taught by two different instructors, the way the two deliver the course will be different. The intention is evaluating the teaching, not the instructors. Prof. Rui agreed on this. Prof. Tom displayed the evaluation sheet. The sheet classifies the evaluation criteria onto two dimensions (proposed by PC). Prof. Tom provided brief explanation and further underline the importance of showing the raw data. PC agreed with him.

Decisions: None

Issues: None

(4.) Action on Task 5.5 Joint short-term courses in the field of IE for professionals

Meeting Notes:

- PC stated that, based on the proposal, the short courses shall be offered in all regions of Thailand. He allocated the workload for all Thai partner universities to collaborate in this task:
 20 man-days for each, and 30 man-days for KMUTNB team as the task leader. He then encouraged all the Thai partners to contribute.
- Prof. Tomasz asked Prof. Athakorn to explain on his current plan. He responded that he would like to simplify the courses (based on his survey: Course No.6 Digital Factory, Course No.7 Advanced Optimization: Techniques and Industrial Applications, and Course No.9 Applied Data Analytics) to ease the audiences' understanding. Some topics on the introduction module of the courses should be selected. He further mentioned about the COVID-19 pandemic and express his opinion to offer the training online.
- PC provided the key idea of this task. He said that the trainees should have, after accomplishing the training program, a positive impression with our curriculum and would like to complete the whole courses. He emphasized that the training should properly prepare and provides sufficient knowledge. He also pointed out the number of man-days for this task.



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- PC preferred to offer on-site training. He stated that on-site training is more effective than
 online training. He then sought an opinion from all the Thai partners regarding the possibility
 to offer the on-site training.
 - Or. Wichai responded positively. The training can be offered on-site at CMU and the 2-meter social distancing rule will be applied along with the training program. However, his concern was on the interest of the audiences on the training topics. Local needs may be different between the north and the central. PC responded that CMU team may offer also one additional topic; however, the topic must be agreed by Prof. Athakorn and Prof. Kanchana (WP5 leader). Prof. Athakorn underlined on the issues related to the COVID-19 which may occur when offering on-site training. He mentioned that his university suggested avoiding organizing face-to-face events.
 - Prof. Thanate asked whether different places can offer different courses. PC responded that it is ok if the task leader and the WP leader also agree on this. Prof. Thanate stated that the current COVID-19 situation in the southern Thailand limits the chance to offer on-site training.
 - o Dr. Apiwat said that he needed to consult with his team on this regard.
 - Prof. Kanchana stated that offering on-site training is possible when the 2-meter social distancing rule is applied. She expressed that the perfect time to offer this training program is in June or July.

PC concluded that for CMU and KKU, on-site training is possible. For other Thai partners, they can offer online training.

Decisions: PC asked to prepare the training program based on the three courses proposed by Prof. Athakorn, however; each Thai partner can request offering additional subjects to respond to the local needs. The training should be prepared for offering on on-site and online format. In case the on-site training cannot be organized, it will be replaced by online training. He requested Prof. Athakorn and Prof. Kanchana to start working on the list of topics.

Issues: As explained above.

(5.) Organizing the PAEE/ALE' 2020

Meeting Notes:

- Prof. Rui (the PAEE chair) and PC thanked all the project members for their commitments and support on the number of submitted abstracts.
- PC explained his plan for organizing the conference. Regarding the COVID-19 pandemic, the conference will be held in a hybrid platform (combining between onsite and online format). For Thai, the situation is getting better day by day. He was confident that Thai attendants can participate in the onsite format. However, this might not be the case for international participants because they may not be able to fly abroad. In this case, the online format will serve their need. The fee for online participants will be low; however, it should be sufficient to cover expenses on technical set-up, system, etc. He emphasized that he has no intention to



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make any profit out of the conference. The income is only to cover all the expenses. His aim is to make a memorable event for participants. He started preparing system for online format and will do pilot testing soon. For onsite format, he asked Duangthida to report the current status of the conference venue. Duangthida reported that the hotel was closed since the 3rd of April. It will reopen on the 3rd of June. As discussed with the sales manager, it is possible to keep the conference venue as planned. PC added that he will try keeping things as planned if he could manage all the expenses. However, he will pay attention on the COVID-19 situation and revisit the plan. There is also a chance to move the conference back to AIT or to organize it only in the online platform.

• Dr. Wichai asked PC to provide a guideline for reimbursement regarding attending the conference for the project members. PC responded that the commitment from all to the conference is the publication. He added that attending the conference is the path to achieve the publication. He referred to his communication with the project advisor and explained that attending the conference in online format cannot be reimbursed because there will be no travel report. It means that the members must attend the conference in-person to be eligible for the reimbursement for the cost of travel and cost of stay. However, to be able to charge from the project, the members must perform tasks of the project such as disseminating the project outcomes. There will be activities for members to perform.

Decisions: None **Issues:** None

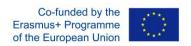
(6.) Financial statement

Meeting Notes:

- PC displayed a spreadsheet that shows the amount of the three installments for all the partners. He explained that the 4th transfer will be made in July and the 5th transfer for the last 10% of the total budget will be made after the assessment from the agency. He reported that all the 3rd installments had already done for all the partners excepting UPB and UMinho. UPB has not yet requested for the 2nd installment and UMinho has not yet requested for the 3rd installment. Prof. Tom responded that he would like to make sure that the works accomplished by his team comply with the project plan and the expected outcomes. PC explained on his document checking process and emphasized that he would like to protect all from any kind of penalty. He further referred to the positive result from the external audit. However, he underlined that this might not be the case for the assessment from the agency.
- PC reported that he had asked all the partner leaders to submit the financial report until December 2019; however, he received only from some.
- PC provided information on the budget and spending. He said the project loses a few million regarding the exchange rate. However, he will try to alleviate this issue to the development of the laboratory (Task 3.7). He reported on the spending on each station/unit (Inventory, Tiling Automation, AGV, Conveyor, Inspection, etc.). He also reported on spending for Thai partners



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regarding the immersive classroom equipment. The over-budget amount had been absorbed by AIT.

Decisions: PC reminded all partners to prepare staff convention documents. The form is available on the project website under WP6 form. He underlined that one form serves only one role. If the member performs several roles, s/he needs several staff convention documents.

Issues: As explained above.

(7.) Other business

Meeting Notes:

- Prof. Tom presented information and webpage for ICAMaT 2020 Conference which will be held in Romania.
- PC reported no sign from the agency to expand the project duration regarding the COVID-19 pandemic.
- Dr. Wichai asked PC when the Thai partners can use the purchased software. PC responded
 that the purchased software had already been installed into the Thai partners' computer set
 which will be used during the training offered by the company. If the in-person training which
 will be organized at AIT cannot be held, the computer sets will be soon delivered to all Thai
 partners. The computer sets had been kept at AIT for purpose.
- Dr. Wichai asked whether the number of software licenses can be increased. PC reported that, in total, there are 16 licenses for Tecnomatrix and 5 licenses for NX. This is the best deal we could get with our budget. He also thanked Prof. Athakorn for his help to get this deal.
- Prof. Rui reminded PEC members to check his/her email regarding the WP1 report.

Decisions: None **Issues:** None

5. Action Items

Action	Assigned to	Due Date
Scheduling an online meeting for WP3	PC	Soon
Preparing the to-do list for each WP	WP4 Leader	Before May 29, 2020
Creating an internal page on the project website to report on the pilot tested courses	WP2 Co-leader	Soon
Preparing a list of possible topics for the short-course training	Leader of Task 5.5 and WP5 Leader	Mid of June 2020
Completing financial statement until December 2019	All partner leaders	As soon as possible







Preparing staff convention documents All		All	-		
6. Attachments (documents/handouts to bring, reading material, etc.)					
Description			Prepared by		
None					
6. Next Scheduled Meeting					
Date:	N/A	Time:			
Location:		·			