ERASMUS+ CBHE PROJECT

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

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Meeting Minutes Report

Meeting Subject:	Project Executive Committee (PEC) Meeting		
Date of Meeting:	January 23, 2020	**Time:**	9:00-12:00 (GMT+7)
Minutes Prepared by:	Duangthida Hussadintorn Na Ayutthaya	**Location:**	Meeting room 1, 8th Floor, Pienwijit Building, Faculty of Engineering, KKU

1. Attendance at Meeting

Name	University
1. 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. Dr. Thitipong Jamrus (Observer)	
8. Prof. Athakorn Kengpol (Member)	King Mongkut's University of Technology North Bangkok
9. Dr. Thanate Ratanawilai (Member)	Prince of Songkla University
10. Dr. Apiwat Muttamara (Member)	Thammasat University
11. Prof. Tom Savu (Member)	University POLITEHNICA of Bucharest
12. Prof. Livia Lazar (Invitee)	
13. Prof. Bogdan Abaza (Observer)	
14. 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, WP5
(3.) To inform and discuss on the current issues of the project

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(4.) To update the financial statement with the PEC members

3. Meeting Agenda

(1.) Action on WP 4

(2.) Overall progress of WP3, presented by WP3 leader

(3.) Overall progress of WP2, presented by WP2 leader

(4.) Overall progress of WP5, presented by WP5 leader

(5.) Financial statement

4. Meeting Notes, Decisions, Issues

Dr. Pisut (Project Coordinator – PC) welcomed all to the PEC meeting and invited Prof. Livia, WP4 leader, to start the first session of the meeting agenda.

(1.) Action on WP 4

    Meeting Notes:

- WP4 leader asked for final reports summarizing all activities from all WP leaders.
- Next, she reported an overview of the project midway evaluation from the external audit (auditor: Dr. Ruzika) as follows.
  - Period of the project realization covered: 15 October 2017 to 30 September 2019
  - Main concern: task 2.1 and 2.2 are behind the schedule
  - Strong points:
    i. Good budget distribution between WPs and partners
    ii. Well balanced workload distribution between WPs, activities, staff categories
    iii. Existing premises for project spin-offs and international further collaborations
    iv. Precise developed procedures, that are followed within the project
    v. Sustainability of the project results ensured
    vi. Admiration and gratitude to the Project Coordinator for the ways he is managing this project
- PC asked PEC members whether they agree to invite Dr. Ruzika to continue on the project final evaluation. PEC members agreed on this. WP4 leader also provided support on this point. She expressed that Dr. Ruzika knows the project well. However, for the auditor to have a better understanding of the project, she encouraged all the members to answer the auditor's questionnaire for the next time in more detail rather than giving only 'Yes' or 'No'.
- WP4 leader sought opinions from PEC members on the time frame for the next evaluation. PC suggested inviting the auditor to come during the conference dates (26th – 28th August 2020). He explained that this should be a good time for her to meet in-person with many project members and observe also the organization of the conference and the dissemination activities of the project.

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- WP4 leader reported that there were two forms developed for Task 2.4 Assessment of pilot test. One was developed by Dr. Robert. The other one was also developed. She requested to select only one and put it into the appropriate form.
- For Task 3.3 Developing a web-portal for online learning, WP4 leader requested to receive the evaluation results from students. Now, there were only the evaluation results from teachers. She further requested to have the number of subjects using this platform.
- For WP5, WP4 leader requested to update information on the project activities at the right time and right form.
- Dr. Luong (QC member) sought opinions on how the developing courses should be evaluated. Dr. Pisut (the leader of Task 5.2 Creating a project website ...) displayed a webpage showing the course materials developed for Course No. 16. He explained that QC members can visit this page to access the course materials for checking. For some courses that already have their own webpages, he will connect those pages to the official pages dedicated to individual courses. The members discussed issues regarding types of documents to be uploaded, file names, structure on webpages for course developers to update their progress.
- WP4 leader reported the status of an external financial auditor. There were three options from Thailand. The current status is in the process of selection. The selected team is expected to perform the audit in March 2020. They will review the project financial report from the beginning till March 2020. The remaining section (March 2020 – October 2020) will be reviewed in September 2020. PC raised that he needed to consult with the project advisor whether the payment for the auditor can be made after the project end (October 14, 2020).

Decisions: Invite Dr. Ruzika to continue on the project final evaluation.

Issues: As explained above.

(2.) Overall progress of WP 3

Meeting Notes: Dr. Luong – WP3 leader – reported on each task of WP3 as follows.

- Task 3.1 Developing teaching materials: As discussed previously, AIT team will create a structure for each course to update the progress.
- Task 3.2 Translating teaching materials: This task is in progress. He will inform the procedure to upload translated materials to members in the general meeting.
- Task 3.3 Developing a web-portal for online meeting (V-class): The workshop on V-class had been conducted for the Thai project members already. Feedbacks from the participants had been taken to considerations. He underlined that participants suggested using the V-class for all the pilot testing courses this semester.
- Task 3.4 Training of staff: He reported that WP3 team had been waiting for feedback from the participants of the workshops conducted at UMinho and CUT.

Decisions: AIT team will create a structure for each course to update the progress.

Issues: None

(3.) Overall progress of WP 2

Meeting Notes:

- Prof. Tomasz (WP2 leader) provided an overview of the progress of Task 2.2 Developing courses & course learning outcomes as follows.

No.	Course Name	Workload	Status
1	Enterprise Management in Digital Economy	(1-4-0)	Final version
2	Project Management for Industry 4.0	(2-2-0)	
4	Quality Management for Extended Enterprise	(2-2-0)	
7	Advanced Optimization: Techniques and Industrial Applications	(3-0-0)	
8	Intelligent Decision Support Systems	(1-4-0)	
9	Applied Data Analytics	(2-2-0)	
10	Cyber-Physical Industrial Systems	(2-0-3)	
13	Innovative Product Design and Development	(1-4-0)	
15	Customer Experience-Driven Design	(2-0-3)	
16	Communications and People Skills Development for Engineering Leaders	(1-4-0)	
3	Smart Operations Management	(1-2-0)	Waiting for re-submission after the 1st review; Waiting for adjusting workload structure
5	Sustainable Supply Chain Management	(1-4-0)	Waiting for final corrections/reviewers' acceptance
6	Digital Factory	(2-0-3)	
11	Collaborative Manufacturing Systems	(2-2-0)	
12	Additive Manufacturing for Industry 4.0	(2-4-2)	Waiting for final corrections/reviewers' acceptance; Waiting for adjusting workload structure
14	Human-Centric Design for Operator 4.0	(1-4-1)	

- WP2 leader explained in detail for Course No.6. He said that he had received feedback from one reviewer and had been waiting for another reviewer to reply.
- Dr. Pisut (WP2 co-leader) explained in detail for Course No. 11. He said that the content of the course does not match with the course title. The majority of the content is similar to the traditional course. For Course No. 11, he said that there were only a few minor issues and the team will provide the revised version soon.
- WP2 leader provided an overview of the progress of Tasks in WP2. For Task 2.1, WP2 team will combine syllabuses of all the courses into one file for QCMB to review. For Task 2.5 Preparation for accreditation of the curriculum, WP2 co-leader reported that all Thai partners had reported their commitments to adopt the MSIE 4.0 curriculum in the previous meeting. WP2 team will follow up on the progress in the next meeting.

Decisions: WP2 team will combine syllabuses of all the courses into one file for QCMB to review.

Issues: None

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(4.) Overall progress of WP 5

Meeting Notes:

- Prof. Kanchana (WP5 leader) presented 'Benefits to become an MSIE 4.0 associated partner' and 'Steps to apply an MSIE 4.0 associated partner' as follows.
  - o Benefits to become an MSIE 4.0 associated partner
    - i. University Partner
      - a) Having access to teaching and learning materials of the MSIE 4.0 courses
      - b) Joining workshops related to course design and development
      - c) Receiving information about MSIE 4.0 activities
      - d) Adopting the MSIE 4.0 curriculum
      - e) Collaborating with MSIE 4.0 communities
    - ii. Industry Partner
      - a) Having access to MSIE 4.0 short course training
      - b) Collaborating with MSIE 4.0 in upcoming activities
      - c) Receiving information about MSIE 4.0 activities
  - o Steps to apply an MSIE 4.0 associated partner
    - i. Get acquainted with the MSIE 4.0 project
    - ii. Submit the formal request to join the MSIE 4.0 project
      A formal letter from the Dean for an academic partner and from Managing Director for an industrial partner is required.
    - iii. Review and decision by the PEC
    - iv. Upon acceptance

  For step 2, PEC agreed that the candidate must submit the letter to the network coordinator (Prof. Kanchana).

  In this regard, Prof. Tom suggested having a form to check the interests of prospective associated university partners. From their responses, the consortium will be able to provide suggestions and information about the MSIE 4.0 courses that fit their interests.

  Prof. Rui suggested to concern on 'Copyright' when the associated university partners using the course materials.

  PC suggested allowing associated university partners to access online and physical laboratory. However, their accessibility level is different from the partner universities. They shall be able to observe but cannot manipulate the resource.

  Dr. Thanate suggested setting a target number of associated partners. Prof. Kanchana agreed on this point and requested help from Thai partners to achieve the target number. Dr. Wichai responded the target number should be one university partner and one industry partner from each Thai partner university.

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- Next, Prof. Kanchana invited Prof. Athakorn (Leader of Task 5.5 Developing joint short-term courses) to report the progress of the Task to PEC. Prof. Athakorn displayed a survey result showing the top-three MSIE 4.0 courses that gained the highest interest from the industry (90 companies) and university lecturers. The three MSIE 4.0 courses were (1.) Course No.6 Digital Factory, (2.) Course No.9 Applied Data Analytics, (3.) Course No.5 Sustainable Supply Chain Management. He had a plan to conduct the survey again during the 28th KMUTNB job fair (13-14 February 2020). For training program, he planned to offer three-day training – one day for one course – in different parts of Thailand.

  PC suggested preparing promotional materials to announce to the public. The material should provide a timeframe of all offering training topics which allow the prospective participants to register for the ones they prefer. He further underlined two points: (i.) this training program is free of charge, and (ii.) the ones who developed the course will give the training.

  Prof. Tomasz made a point that information of modules for the courses should be provided in the survey because the offer will be based on the module, not the whole course.

  PC sought opinions from PEC on the following points.

    o One-day training for one course should be the option?

      : Prof. Tomasz responded that this should be an optimal option for those who have an interest in several courses; Prof. Rui replied that it should be okay if training will offer the crucial part of those courses.

    o Are the needs from the central and locals different?

      : PC stated that different parts of Thailand may have different needs. To be able to realize this point, the survey should also be conducted in the locals or each Thai partner can express their knowledge on local needs. PEC agreed on this and requested having the information about local needs by the end of February 2020.

    o How should the trainers develop their training program and training material?

      : PC suggested that the proposed training program and training material should be reviewed (at least) by WP5 leader.

Decisions: None

Issues: None

(5.) Financial statement

Meeting Notes:

- PC provided an overview of the project financial statement (as of the beginning of December 2019) which he had prepared to submit to EACEA. The record for the equipment cost was up to date.

- PC reminded PEC members to update their financial statements up to the end of 2019. He asked whether all agree to submit the updated file to him by February 28, 2020. PEC members agreed on this.

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- PC provided information for members – who were attending this meeting – to charge from the project
  - For non-PEC members, charge to WP6 as researchers
  - For QC members, charge to WP4
  - For Thai members, charge two days
  - For EU members, charge four to five days (as appropriated)

Decisions: PC asked the PEC members to submit their financial statement up to the end of 2019 by February 28, 2020.

Issues: None

5. Action Items

Action	Assigned to	Due Date
Invite Dr. Ruzika to continue on the project final evaluation	QCMB	
Create a structure for each course to update the progress on the project website	AIT team	February 6, 2020
Combine syllabuses of all the courses into one file for QCMB to review	WP2 team	Soon
Submit financial statement (up to end of 2019)	Partner leaders	February 28, 2020

6. Attachments (documents/handouts to bring, reading material, etc.)

Description	Prepared by
None	

6. Next Scheduled Meeting

Date:	During 18th – 22th May 2020	Time:	TBA
Location:	UPB		