



WP4 QUALITY PLAN

QCM report no.6

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REVISION SHEET

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1 Executive Summary

The purpose of this report is to provide an objective assessment from the project's point of view of the progress and achievements of the project during its duration, and, in particular, to identify any improvements and adjustments that should be considered for subsequent periods.

The evaluation period refers from April to October 2020 and include the partners representatives' feedbacks accordingly to the project processes ongoing, the sixth QCMB meeting and the evaluations for the outcomes within the mentioned period.

2 Introduction

The purpose for internal quality monitoring and control is to validate that the project deliverables are completed with an acceptable level of quality and to assures that project's processes can properly create these deliverables.

For this report, there were taken in account:

- QCMP, versions 4/3.12.2018 and 5/09.07.2019;
- PMCP, version 2/ 12.04.2019;
- reports submitted by the WP Leaders in the sixth meeting held online due to the pandemic situation that made difficult for the project team members to travel;
- Evaluation criteria identification form completed for the tasks ongoing or that are starting in the appropriate future.
- 4 QCM reports submitted by QCM team;
- project's results.

3 Process-evaluation

There have been submitted 4 reports for internal quality control and monitoring of the project progress. The reports involves the time period between march and april 2020, may and june 2020, july- august 2020 and september-october 2020.

During the online meeting there were presented WP's reports with the status of their tasks and deliverables.

An report consisting in the QCMB's observations and sugestions for improving the project progress was sent to PC in may 2020.

4 Product-evaluation

During April to October 2020, there were submitted for quality assessment:

- Mr. Pichai Limroscharoen selection as financial auditor with all QCMB votes.
- CDD-T2.2_O2.2 (V5) - Outcome 2.2 - Syllabuses for all courses in the curriculum, assessed as "Document accepted, but changes required", with "satisfactory" - 71% answers and "good" -29% answers) level.
- The evaluation for the outcomes for task 2.3 consisted in verifying by QCMB the existence of the administrative document for all the pilot tested course, uploaded on the project website: <https://msie4.ait.ac.th/outcome-2-3-pilot-teaching-at-partner-universities-with-administrative-document/> (enrolled students, lecturers involved, duration).

- CDD-T2.4_O2.4(v1)- Outcome 2.4 - Assessment of pilot test of the key courses and improved courses is "Document accepted, but changes required", with "good" -73% answers and "satisfactory" - 23% answers level.
- CDD-T3.3_O3.3 (V4) Vclass Online Learning Platform is "Document accepted, but changes required", with "very good" - 33% answers, "good" -59% answers and "satisfactory" - 8% answers level.
- CDD-T3.4_O3.4 (V3) Outcome 3.4 - Training of staff on new tools and best practice exchange on modern teaching techniques is "Document accepted, but changes required", with "very good" - 27% answers, "good" -46% answers and "satisfactory" - 27% answers level.
- Outcome 2.5 - Preparation for Accreditation of the curriculum is "Document accepted, but changes required", with "good" -33% answers and "satisfactory" - 67% answers level.
- Outcome 5.2 - Creating a project website to support the dissemination strategy and communication and collaboration among partners is "Document accepted, but changes required", with "good" -50% answers and "satisfactory" - 50% answers level.
- Outcome 5.3 - Production and dissemination of project" is "Document accepted, but changes required", with "good" -75% answers and "satisfactory" - 25% answers level.
- Outcome 5.4 - Publications in professional journals, newspapers, magazines, brochures, and social media is "Document accepted, but changes required", with "good" -67% answers and "satisfactory" - 33% answers level.
- Outcome 5.5 - Developing joint short-term courses in the field of Industrial Engineering in cooperation with industry for professionals is "Document accepted, but changes required", with "good" -33% answers and "satisfactory" - 67% answers level.
- Outcome 5.6 - Organizing dissemination events with relevant stakeholders is "Document accepted, but changes required", with "good" -50% answers and "satisfactory" - 50% answers level.
- Outcome 5.7 - Organizing the final dissemination-sustainability conference. is "Document accepted, but changes required", with "good" -58% answers and "satisfactory" - 42% answers level.

5 Evaluation of the project impact

Major effort of the project members focused on the organization of the final dissemination-sustainability conference – The International Conference on Active Learning in Engineering Education (PAEE/ ALE'2020), for the first time in Asia. The theme conference is "Striving Engineering Education Towards Student Competence Development".

- A brochure was developed and disseminated on all the available channels to promote the project conference.
- A number of 21 papers were presented and published in conference's proceeding by the project members, only.
- The keynote speakers shared their visions on Engineering Education and offered different perspectives:
 - o "Future, We Hear You: Reforming Education for Lifelong Learning", by Hon. Abhisit Vejjajiva
 - o "Active Transdisciplinary Engineering Education for Competence Development in An Intelligent Manufacturing Era", by Prof. David W Rosen
 - o "Be Comfortable in Uncomfortable Zone: Workforce 4.0 will never be the same", by Dr. Sampan Silapanad
 - o "In Pursuit of Active Learning: Challenges, Insights, and Opportunities", by Prof. Cynthia Finelli
 - o "Improving Engineering Education with Effective Teaching and Learning", by Prof. Michael Christie.
- There were 87 participants from 13 countries; Brazil (25.6%), Portugal (25.6%), Poland (9.3%), Thailand (9.3%), Tunisia, Denmark, Romania, Russia, South Africa, Spain, Taiwan, Netherlands, and Vietnam.
- Sixty-one academic articles were submitted.



Between July and August 2020, within the MSIE 4.0 project, there was set a training program for industry. The training program consisted in 5 short courses: Digital Factory by KMUTNB on the Saturday, July 18, 2020, Human-Centric Design for Operator 4.0 by TU on Saturday, July 25, 2020, Smart Operations Management by CMU on Saturday, August 1, 2020, Sustainable Supply Chain Management by KKU on Saturday, August 8, 2020, and Intelligent Decision Support Systems by PSU on Saturday, August 15, 2020. Three communication channels were used: onsite at the university, online by ZOOM application, online by MSIE4.0 Facebook Live.

The opportunity for promoting the concepts of MSIE4.0 curriculum came also through the seminar "The smart operations management 4.0 and lean 4.0" conducted by CMU, in August 2020.

By October 2020, the project team members managed to produce another 22 VDO clips for projects outcomes presentation, available on an official MSIE4.0 YouTube Channel.

6 Conclusions

The efforts of the project members are seen in the amount and the quality of the results presented through the different channels.