

INTELEC2023

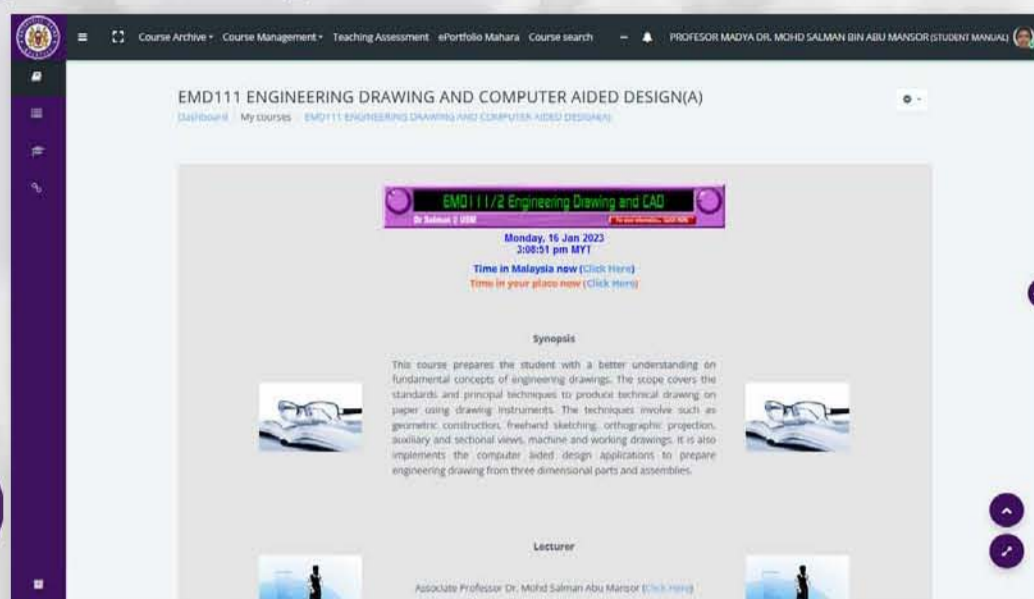
INNOVATIONS IN TEACHING & LEARNING COMPETITION

i-Project Based Learning CAD for An Immersive Learning Experience

Blended

Develop skill, Promote creativity, Enhance teamwork & Experience new knowledge.

ABSTRACT



Previous Teaching and Learning Computer Aided Design (CAD) has been exposed to the elements of complexity with a standard quality in "Engineering Drawing and CAD" course. Thus, there are high demands for the learners to experience human-machine interaction for solving the real engineering design problems with optimal cost. Therefore, the purpose of **i-Project Based Learning CAD** is to enhance the method of project-based learning (PBL) in order to attain the Learning Outcome (LO) of CAD software through eLearn@USM. On top of that, it is introduced in order to innovate the PBL on CAD towards digitalized and humanized community that in line with Industrial Revolution (IR) 5.0.

ADDED VALUES

1. Enhancement of learners' knowledge and teamwork

- Customized Instructional Approach
- C: Knowledge to analyze the elements of CAD

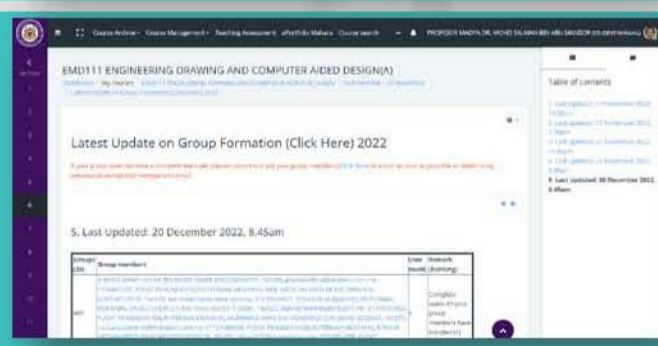
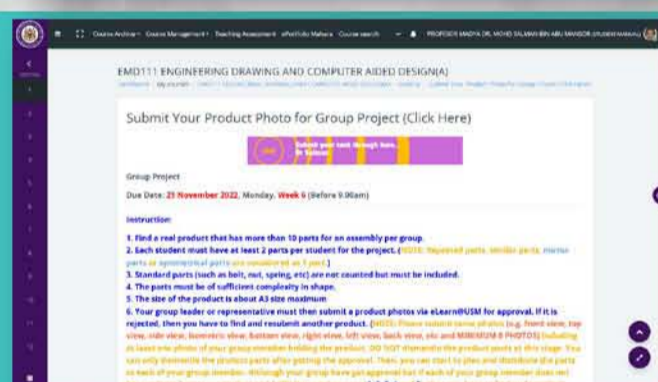
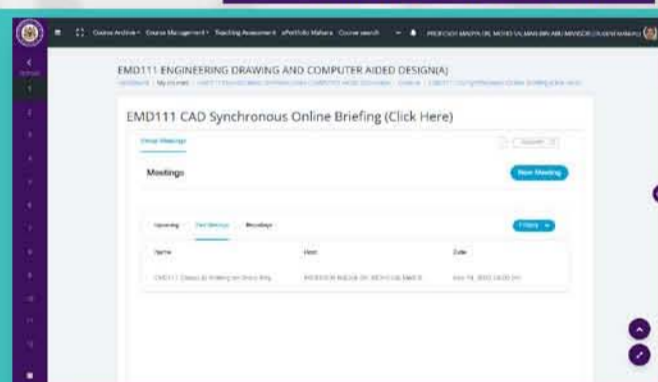
- Student Centered
- C: Knowledge to evaluate the elements of CAD

- Collaboration
- A: Feeling in term of valuing the responsibility to CAD applications

2. Enhancement of learners' skill and creativity

- Real World Connection
- P: Physical skill to assemble in the CAD systems

- Reflection
- A: Feeling in term of organizing the new information or experiences to CAD systems



NOTE: C=Cognitive P=Psychomotor A=Affective

OBJECTIVES

Since the previous PBL method for LO of CAD software in "Engineering Drawing and CAD" course has a high potential impact to be employed towards the era of IR 5.0, thus **i-Project Based Learning CAD** is designed by using e-learning to attain these two objectives:

- To provide a platform where the experiential learning can be incorporated via digitalization and humanization towards IR 5.0.
- To enhance stylish activities of learners' knowledge, teamwork, skill and creativity in a sustainable environment.

USEFULNESS

- 1 Creating the next generation of talent for the human-machine age
- 2 Transitioning to a world class sustainable environment
- 3 Building trust in the digitalized economy



COMMERCIALIZATION POTENTIAL

- 1 Flexible Education
- 2 Higher Learning Institutions
- 3 Training Centres
- 4 Manufacturing Industries

ACKNOWLEDGEMENT

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INNOVATOR DETAILS

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INNOVATOR PHOTO

