

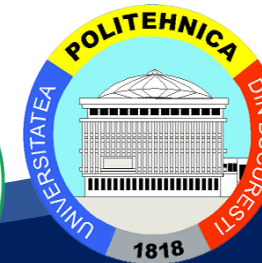


Co-funded by the
Erasmus+ Programme
of the European Union



Activities





in Digital Factory Subject



Curriculum Development
of Master's Degree Program in

Industrial Engineering for Thailand Sustainable Smart Industry

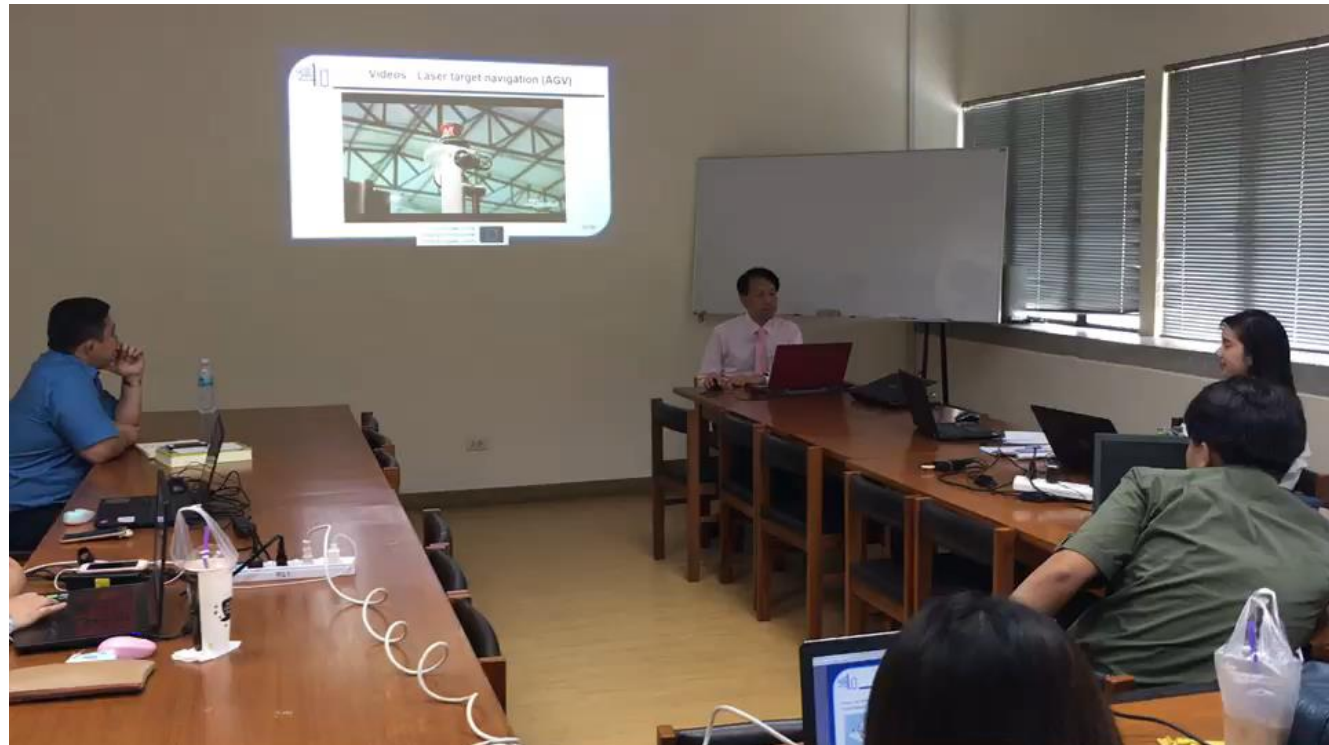
LOVE Model

 <p>V-Visiting (passive immersion)</p>	 <p>E-Experimenting (active immersion)</p>																								
<ol style="list-style-type: none"> 1. Field classes, trips and excursions 2. Conference 3. Virtual reality 	<ol style="list-style-type: none"> 1. Project-based learning (PjBL) 2. Laboratory classes 3. Virtual laboratory 																								
 <p>O-Observing (passive absorption)</p>	 <p>L-Learning (active absorption)</p>																								
<ol style="list-style-type: none"> 1. Lecture 2. Guided conversation 3. Integrated or interdisciplinary teaching 4. Showing video material 5. Seminars conducted in classes 6. Live lecture from a remote place 	<table border="0"> <tbody> <tr> <td>1. Discussion</td> <td>13. Guided practical exercises</td> </tr> <tr> <td>2. Demonstration with exercising</td> <td>13. Role play</td> </tr> <tr> <td>3. Class debate</td> <td>14. Assignments</td> </tr> <tr> <td>4. Small groups debate</td> <td>15. Individual presentation</td> </tr> <tr> <td>5. Simulation</td> <td></td> </tr> <tr> <td>6. Problem-based learning (PrBL)</td> <td></td> </tr> <tr> <td>7. Programmed teaching</td> <td></td> </tr> <tr> <td>8. Workshop</td> <td></td> </tr> <tr> <td>9. Brainstorming</td> <td></td> </tr> <tr> <td>10. Case study</td> <td></td> </tr> <tr> <td>11. Online interactive learning</td> <td></td> </tr> <tr> <td>12. Game-based learning</td> <td></td> </tr> </tbody> </table>	1. Discussion	13. Guided practical exercises	2. Demonstration with exercising	13. Role play	3. Class debate	14. Assignments	4. Small groups debate	15. Individual presentation	5. Simulation		6. Problem-based learning (PrBL)		7. Programmed teaching		8. Workshop		9. Brainstorming		10. Case study		11. Online interactive learning		12. Game-based learning	
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L-Learning

- Case Study
- Brainstorming
- Discussion

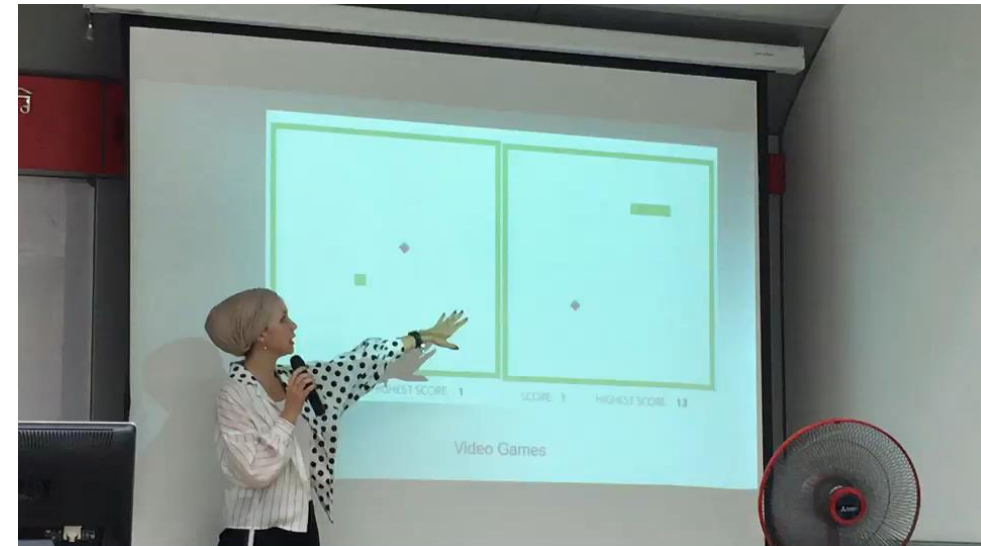
- Professor Dr.Dr. Athakorn Kengpol



- We have 2 exchange-students in our class



- Thaniagabriella (Indonesia)



- Khloudalzubi (Jordan)

L-Learning



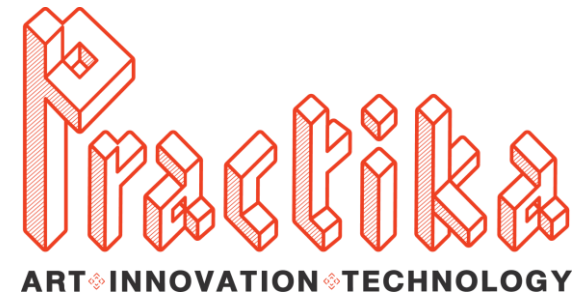
- Works Group
- Our Idea Presentation
- Debate



L-Learning



- Guide to Digital Factory



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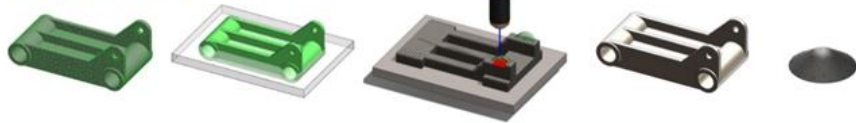


O-Observing



- Showing video material
- Seminar conducted in class

Additive Manufacturing



Subtractive Manufacturing



- Additive Manufacturing

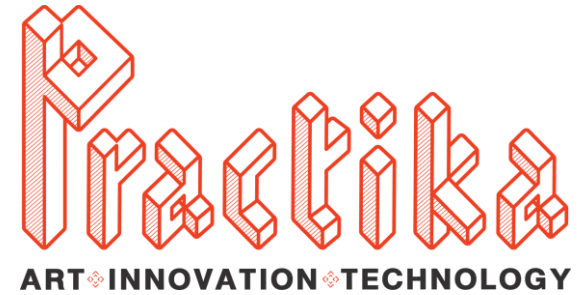


- AR & VR

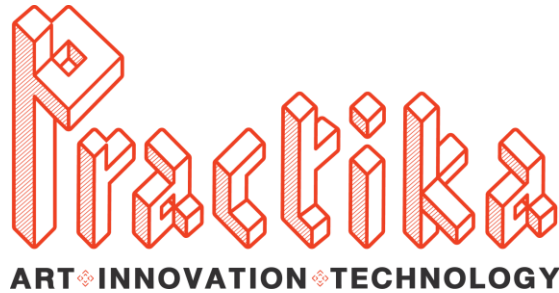
V-Visiting



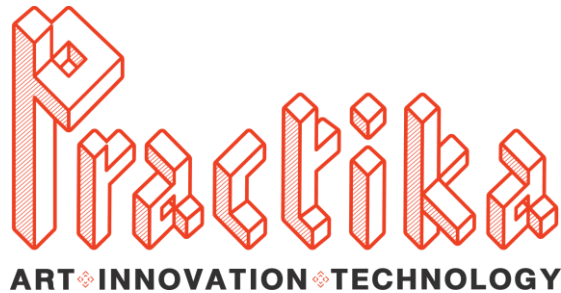
- Factory Visit



- Presentation



- How to improve to Digital Factory



- VR Laboratory Class

31st July 2019



- Mr. Alexander Dressler University of Stuttgart Germany
at TGGGS, KMUTNB

- Additive Manufacturing : Lecture & Workshop

2nd - 3rd July 2019

2-3 August 2019 09.00 - 16.00

Day 1, Lecture

- Overview of AM and AM Processes
- Advantages and Disadvantages of AM
- Selection of Manufacturing Processes
- Design for AM Concepts and Approaches
- AM Standards and Developments

► Wicitwathi Auditorium 3rd Floor, 81 Building, Faculty of Engineering (KMUTNB)

Day 2, Workshop on DFAM

- Conceptual Design for AM
 - Design exemplars for ideation
 - Topology optimization
- Detailed Design for AM
 - Costing and build time estimation
 - AM material properties (repeatability, anisotropy)
 - Design guidelines and rules; manufacturing constraints
- Commercial Software
 - CAD tools for AM
 - Topology Optimization
 - AM process simulation
- Hands-on Topology Optimization with Matlab
 - 2D topology optimization software
 - Example problems; how to modify the software

► Engineering Computer Center 3rd Floor, 82 Building, Faculty of Engineering (KMUTNB)

SPEAKERS :

Prof. Dr. David Rosen
The George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, USA and co-Director of the Digital Manufacturing and Design (DMandD) research centre, Singapore University of Technology and Design, Singapore

Asst.Prof.Dr.Pornsak Srisungsitthisunti
Production Engineering Department, Faculty of Engineering

Design for Additive Manufacturing (DFAM)

Free
Limited number of seats

Register



082-191-6846 (SAHARAT)

Thank You

