



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



Course #3: Smart Operations Management

Module 2: Smart Production in Planning and Controlling
Company's Operations Integrated Production Planning and
Shop-flow Control System Concept

Introduction



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

Module 2 (Smart PPC)

Lesson 2-1: Implementation Forecasting Model under Real-time Situation:

- Tracking accuracy of forecasting model when data are updated and real-time.
- Adjusting forecasting model to match with the real-time demand.
- Advanced techniques to utilize real-time demand for demand forecasting.

Lesson 2-2: Inventory Management under Real-time Situation:

- Utilizing real-time data for inventory management and control.
- Control system and advanced technology in inventory management.

Lesson 2-3: Advanced Integrated Production Planning

- Intelligent ERP and integration of IoT, massive data analytics. Cognitive and process automation.
- Integrated planning system including aggregated planning, master production schedule (MPS), material requirement planning (MRP), and capacity planning (CRP) by utilizing real-time data.





Module 2 (Smart PPC)

Lesson 2-4: Advanced Shop Floor Control

- Advanced scheduling techniques when real-time data are updated.
- Automated shop floor control system and technology.





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



Oral Presentation

Toward Industry 4.0 With IoT:
Optimizing Business Processes in an
Evolving Manufacturing Factory



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



Summary of Case Study and Oral Presentation

Discussion 1

- The difference between classical system and Industry 4.0.
- Keywords of PPC when Industry 4.0 is adopted.
- Transformation from manual works to smart system



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





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



Thank You

Together We Will Make Our Education Stronger



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

<https://msie4.ait.ac.th/>

@MSIE4Thailand

MSIE 4.0 Channel

