#### **ERASMUS+ CBHE PROJECT**



Reinforcing Non-University Sector at the Tertiary Level in Engineering and Technology to Support Thailand Sustainable Smart Industry



# **Innovative Product Design and Development**

# **Objectives**

This module aims at developing the following competences:

- 1. Put the product design and development process into practice in a systematic manner
- 2. Collaborate with others in the design and development of a product

# **Learning Outcomes**

Upon the completion of this module, the trainees will be able to:

- 1. Demonstrate understanding of implementing product design and development process
- 2. Demonstrate understanding of the utilization of product design tools and techniques
- 3. Participate actively in product design and development activities
- 4. Identify sound business opportunity by using Blue Ocean Strategy
- 5. Develop a suitable mission statement according to an identified business opportunity
- 6. Apply product design and development systematically
- 7. Appreciate working in a team environment

#### Prerequisite: None

#### **Outline:**

# • Importance of Product Design and Development

- o Introduction
- o Product Development Strategies
- Product Design and Development Processes

#### Opportunity Identification

- Value Proposition
- Blue Ocean Strategy
- Mission Statement Creation

#### Product Concept Development

- Customer Need Assessment
- o Kano Questionnaire
- Product Specifications Creation
- Quality Function Deployment
- Concept Generation
- Concept Selection

### **Learning Activities:**

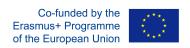
- Short lectures
- Gallery walks
- Class discussion
- Group discussion

CD-CTP-V1

# **ERASMUS+ CBHE PROJECT**



# Reinforcing Non-University Sector at the Tertiary Level in Engineering and Technology to Support Thailand Sustainable Smart Industry



- Group work
- Games
- Oral presentation

# **Time Distribution and Study Load:**

Training: 15hoursCoaching: 30 hoursGroup project: 60 hours

# **Assessments:**

Class discussion and participation

Presentations

Group project

**Developer(s):** Dr. Pisut Koomsap (AIT, Thailand)

CD-CTP-V1 2