

APPLICATION GUIDELINES

- ❖ Application should be made using prescribed MTCP forms available at:
mtcpcoms.kln.gov.my/mtcpcoms/online/list course
- ❖ The application must be completed and endorsed by the Ministry of Foreign Affairs / Focal Points responsible for the MTCP Programme in the applicant's country, then submitted through the applicant's government with Note Verbale to the Ministry of Foreign Affairs Malaysia via the nearest Malaysian High Commission / Embassy.
- ❖ Incomplete and/or unendorsed forms will not be processed
- ❖ Online training link will be sent out via email to successful candidate.

**CLOSING DATE OF NOMINATION
2 JULY 2021**

TRAINING INSTITUTION



Universiti Tun Hussein Onn Malaysia (UTHM) is a public university located in Batu Pahat, Johor Malaysia. It was formerly known as Institute Teknologi Tun Hussein Onn (ITTHO) and Kolej Universiti Teknologi Tun Hussein Onn Malaysia (KUiTTHO). UTHM committed to generate and disseminate knowledge in order to meet the needs of the industry and the community and to nurture creative and innovative human capital, based on the tauhidic paradigm.

Continuing Education Centre (CEC) is a lifelong learning provider in UTHM. CEC provides various opportunities of lifelong learning and professional development programmes for local, national and international community.

Among the programmes offered include short-term courses, long-term courses and part time master programmes.

CONTACT DETAILS

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**MALAYSIAN
TECHNICAL
COOPERATION
PROGRAMME**

STRATEGIES FOR SUSTAINABLE MANUFACTURING AND OPERATIONS

DATE: 12 JULY 2021 – 16 JULY 2021

Time: 9:00 am– 17:00 pm Malaysia (GMT + 8)

TARGETED REGION: ASIA, ASEAN AND SAARC

ABOUT MTCP

The Malaysian Technical Cooperation Programme (MTCP) was officially launched on 7 September 1980 at the Commonwealth Heads of State Meeting in New Delhi, India, to signify Malaysia's commitment to the South-South Cooperation, in particular, the Technical Cooperation among Developing Countries (TCDC).

The MTCP emphasizes on the development of human resources through the provision of trainings in various areas which are essential for a country's development such as the public administration, good governance, health, education, agriculture, sustainable development, poverty alleviation, economy and finance, ICT and environment. Annually, Malaysia offered more than 65 capacity-building and technical assistance programmes under the MTCP, which have benefited more than 34,000 participants from 144 countries.

OBJECTIVES OF MTCP

- To share the development experience with other countries;
- To strengthen bilateral relations between Malaysia and other developing countries;
- To promote South-South Cooperation (SSC); and
- To promote the technical cooperation among developing countries.

COURSE OVERVIEW

In recent years, the concept of sustainability has gradually evolved and begun receiving international attention. Sustainable manufacturing efforts generally aim to improve efficiency in manufacturing processes, eliminate unnecessary resource use, and decrease the amount of waste and emissions produced through manufacturing activities.

Sustainable manufacturing is a useful strategy to help organizations perform well, not only environmentally, but also, socially, and economically. To achieve sustainable manufacturing, it must fulfill the concept of 6R (Recover, Reuse, Recycle, Redesign, Reduce and Remanufacture), which are delivered in this course.

In addition, the evaluation of sustainability performance through the Life Cycle Assessment (LCA) and efficient energy management are also covered in this course.

TRAINING METHODOLOGY

An integrated teaching and learning methodology which include interactive online activities, discussions, simulation exercise and group work on a mini project. This course will be fully conducted in English.

EXPECTED OUTCOME

At the end of course, the participants should be able to:

- ✓ Explain the main concepts of Sustainable Manufacturing
- ✓ Discuss the importance of Sustainable Manufacturing and its application
- ✓ Communicate effectively and cooperate in a group to complete the task given

MONITORING AND EVALUATION METHOD

- Presentation: 30%
- Participation: 20%
- Assignments and Reports: 50%

COURSE OUTLINE

1.0 INTRODUCTION TO SUSTAINABILITY

- 1.1 Concept and evolution of sustainable manufacturing
- 1.2 Societal, Environmental and Economic Sustainability-Traditional Approach
- 1.3 General Sustainability Applications
- 1.4 New Trends in Sustainability: Products, Processes and Systems

2.0 LIFE CYCLE ENGINEERING AND MANAGEMENT

- 2.1 Product Life Cycle Management
- 2.2 Reuse, Recycling and Recovery
- 2.3 Minimizing the Environmental Impact
- 2.4 Assessment of Recyclability

3.0 DESIGN FOR SUSTAINABILITY

- 3.1 Introduction
- 3.2 Key principle of Design for Sustainability
- 3.3 Managing Sustainability in Product Design
- 3.4 Design for Environment (DFE)
- 3.5 Golden Rules of DFE

4.0 DESIGN FOR RECYCLING (DFR)

- 4.1 Introduction to Recyclability
- 4.2 Recycling Strategies
- 4.3 Recyclability Assessment
- 4.4 Principles of DFR
- 4.5 DFR Guidelines
- 4.6 Green Manufacturing

5.0 REMANUFACTURING

- 5.1 Introduction
- 5.2 Methodology of Remanufacturing
- 5.3 Driver to Success in Remanufacturing
- 5.4 Opportunities in Remanufacturing
- 5.5 Challenges in Remanufacturing
- 5.6 Design for Remanufacturing

6.0 SUSTAINABILITY ASSESSMENT METHODOLOGY

- 6.1 Sustainability Measurement Principles
- 6.2 Sustainability Assessment Methodology
- 6.3 Life Cycle Assessment (LCA) Process
- 6.4 LCA Simulation Technique

7.0 CARBON FOOTPRINT

- 7.1 Green House Gases, Climate Change, Carbon and Energy
- 7.2 Background of Carbon Footprint
- 7.3 International Standards and Protocols
- 7.4 Carbon Management
- 7.5 Product Carbon Footprinting
- 7.6 Calculating Carbon Footprint

COURSE OBJECTIVES

This course is designed to assist participants to be able to:

- Explain the concept of sustainable manufacturing on how products are designed, produced, and tested.
- Apply several tools of Life Cycle Assessment to evaluate environmental impacts of product design, manufacturing processes, product use- phase, and product end-of-life.

TARGETED PARTICIPANTS

The participants should be Middle and Top Management Officers nominated by their Government having the following prerequisites:

- A bachelor's degree in any field;
- 26-50 years of age;
- Three years or more of working experience;
- Have a good command of spoken and written English;
- Medically fit;
- Ability to work independently and in groups.

NOTE

- All participants need to prepare a presentation related to sustainable manufacturing implementation in their respective country.
- UTHM is one of Training Institution offered of Malaysian Technical Cooperation Programme (MTPC) scholarship.
- For short courses for foreign country delegates. For more details, kindly refer MTPC online portal at;

https://mtcpcoms.kln.gov.my/mtcpcoms/online/list_course

