

### Course Overview:

The purpose of the course is to provide the participants from countries of all MTCP recipient countries with an opportunity to acquire knowledge, techniques and upskilling in three (3) main areas namely i) Computer Aided Design (CAD); ii) Computer Aided Manufacturing (CAM); and iii) CNC Milling Machine Operation. Participants will be taught on the theoretical and practical skills on CNC programming and machining of CNC Milling Machine as well as to perform CAD and CAM operation.

### Course Objectives:

At the end of this course, the participants are expected to:

1. Acquire the knowledge and ability to design modeling up to 3D CAD
2. Able to produce CNC programming code with CAM as well as transferring program using DNC system.
3. Exposed with the safe handling operation of CNC Machine tool, including techniques of setting up tools and work-piece; select the proper speeds and feeds

### COURSE MODULE

#### Topics:

#### PRECISION MACHINING TECHNOLOGY

- Introduction to CAD/CAM 2D/3D SYSTEM and application
- Overview of The Graphic User Interface, WCS, GVIEW, PLANE
- Create Point Position, Create Rectangles, Create Lines, Create Fillets, Trim Commands
- Create Arcs, Creating Arcs Polar, Xform Mirror, Xform Translate, Break, Join, Xform Offset, Xform Rotate, Tangent Arcs, Tangent Lines
- 3D rough pocket toolpath, 3D finish contour toolpath, 3D finish shallow toolpath
- 3D finish flowline toolpath, 3D finish pencil toolpath, 3D rough parallel toolpath, 3D finish parallel toolpath
- The controller of the CNC Machining Center
- The program structure and machining sequence.
- Programming using Fixed Cycle and Sub-Program
- Tools and work piece setting technique
- Work piece machining & measurement
- Technique transferring program to machine
- Project Evaluation

#### Benchmarking and Educational Visits

- Benchmarking Educational Visits to corporate training centres
- Educational visit to national historical sites and to the capital city.

### Background of the Malaysian Technical Cooperation Program (MTCP)

The Malaysian Technical Cooperation Programme (MTCP) was first initiated at the First Commonwealth Heads of Government Regional Meeting (CHOGRM) for Asia Pacific Region in Sydney in February 1978. It was officially launched on 7 September 1980 at the 2nd CHOGRM in New Delhi, India, to signify Malaysia's commitment to South-South Cooperation, in particular Technical Cooperation among Developing Countries (TCDC). In line with the spirit of South-South Cooperation, Malaysia through the MTCP shares its development experiences and expertise with other developing countries. Since its inception in 1980, more than 33,000 participants from 144 recipient countries have benefited from the various programmes offered under the MTCP. More information at MTCP website: [www.mtcp.kln.gov.my](http://www.mtcp.kln.gov.my)

### Objectives of MTCP:

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

### TRAINING INSTITUTE:

#### JAPAN MALAYSIA TECHNICAL INSTITUTE (JMTI)

The Japan Malaysia Technical Institute (JMTI) situated in the state of Penang, Malaysia is given the responsibility to provide a post-secondary training and tertiary technology education to supplement the shortage of workforce, and to be the ladder for existing skill workforce to upgrade and further their vocational training and education to the highest standards and achievements towards meeting the skilled manpower requirements in high technology industries and vision 2020.

JMTI offers advanced courses in Engineering Technology comprises of five (5) main fields of study which are Computer, Electronics, Mechatronics, Manufacturing and Precision Machining. The main objective of JMTI is to produce well-trained industrial technologist with engineering knowledge and high technical skill especially in the field of engineering which prepares the trainees to adapt and face the challenges of rapid growing technology in line with the advancement and changes of globalization.



## MALAYSIAN TECHNICAL COOPERATION PROGRAMME (MTCP) 2019

### PRECISION MACHINING TECHNOLOGY

8 September 2019 to 21 September 2019



APPLICATION DEADLINE: 31 May 2019

# JMTI

Japan Malaysia Technical Institute  
Pulau Pinang

## TARGETED PARTICIPANTS:

This training program is offered to participants who possess **practical experience of more than one (1) year related to manufacturing fields**, from among **all recipient countries of MTCP**. Participants should be nominated by the Government of the respective countries.

## ENTRY REQUIREMENTS:

To be eligible to apply, applicants of the course are obliged to fulfil the following requirements:

- Preference will be given to applicants with **practical experience of more than one (1) year in related manufacturing fields**;
- Nominated by the Government of the respective countries;
- Must be citizens from among **all recipient countries of MTCP**.
- Should be at the **age of under 45** at the commencement of the course;
- Had not participated in any course under MTCP;
- Should possess a fairly good command of the English Language (both spoken and written abilities);
- Medically fit (applicants must submit his/her medical report together with the application form)

## APPLICATION PROCEDURES:

Applications should be made using the prescribed MTCP forms available at:

[http://mtcpcoms.kln.gov.my/mtcpcoms/online/list\\_course](http://mtcpcoms.kln.gov.my/mtcpcoms/online/list_course).

MTCP application forms can also be obtained at nearest Malaysian Embassies in recipient countries.

All application forms must be duly completed and endorsed by the Ministry of Foreign Affairs or National Focal/Aid Coordinator Agency in the respective countries (the relevant ministry or agency responsible for the overall coordination of international technical assistance) and should be submitted **ONLY** through the diplomatic channel via Embassy of Malaysia in the respective countries.

Submitted application forms must be accompanied by the applicant's:

- Copy of Passport
- Passport sized coloured photo (3.5cm x 5cm)
- Medical Report

**Only successful applicants will be notified.**

## NOTIFICATION:

- Applicants who do not receive notification prior to the commencement of the course can assume their applications have been deemed unsuccessful.
- No written notification will be sent to unsuccessful applicants.
- **INCOMPLETE/OR UNENDEORSED FORMS WILL NOT BE PROCESSED.**

## VISA & VACCINATION:

It is mandatory for all the MTCP participants to follow the Visa With Reference (VWR) application procedure. Once the approval is obtained, the training institution should send a copy of VDR approval letter to the participants. Subsequently, with the copy of the approval, the participants may get the VDR from the nearest Embassy of Malaysia.

## NOTE:

- All participants must arrange for their own visa and vaccination prior to their travel. Expenditures on all visa-related fees, airport-tax/airport user's charge, transit insurance, excess luggage, travel tax, transit fees, domestic passenger terminal fees, phone chargers, private purchases, etc. are **BORNE BY THE PARTICIPANTS**. This also applies for medical check-up vaccinations prior to travel to Malaysia;
- Participants from Yellow Fever endemic areas including diplomatic and official passport holders are required to take a mandatory vaccination for yellow fever at least ten (10) days prior to their departure to Malaysia and required to produce a Yellow fever Vaccination Certificate at the entry point in Malaysia.
- For course information and application guidelines, please refer to the following link:

[http://mtcpcoms.kln.gov.my/mtcpcoms/online/list\\_course](http://mtcpcoms.kln.gov.my/mtcpcoms/online/list_course)

## OTHER INFORMATION:

### COURSE TUITION AND FEES:

Tuition fees will be borne by the Malaysian Government under the MTCP.

### AIR FARES:

The Government of Malaysia shall provide excursion economy air ticket to all MTCP participants from the capital city of the MTCP recipient country to Kuala Lumpur and return air ticket from Kuala Lumpur to the capital city of the MTCP recipient country.

### ACCOMMODATION:

Lodging will be provided throughout the duration of the training.

### MEDICAL AND DENTAL TREATMENT:

Medical treatments are provided at government hospitals/clinics only and the expenses will be borne by the Government of Malaysia under the MTCP. In case of an emergency, participants are eligible to be admitted to government hospitals/clinics. Dental treatments are restricted to extraction and filling only.

### PROGRAM MANAGER:

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