



## INSTITUTE OF MATERIAL, MALAYSIA

### IMM Welding Training Course

## Repair Welding of Pressure Equipment in Refineries & Chemical Plants Course

Code: RWPE

*HRDF claimable*

Plant facilities and equipment will degrade after installation and commissioning due to service and environmental conditions. Damage by corrosion, erosion, wear, and cracking may occur while the plant and equipment are in service. The repair of damaged parts of plant facilities and equipment by welding, using a special welding process, specified welding consumables and specified procedures is a widely accepted method of preserving the integrity of plant facilities and equipment. Asset owners' overall replacement costs can be minimised by repair welding.

### Reference standards (reference used shall refer to the latest published document):

- TBA

### Who should apply

This course should be of great interest to owners of process plants, pressurised equipment, pressure pipelines, and similar facilities who need to maintain the functional integrity of their plant and equipment during the lifetime of the plant and equipment post-installation. This course is specifically targeted at asset integrity and quality assurance staff/personnel involved in the maintenance, repair and overhaul of welded plant facilities and equipment. It is recommended to participants from petroleum refineries, petrochemical and chemical and related industries, including:

- Welding engineers
- Welding Non-Destructive Testing (NDT) personnel
- Welding supervisors
- Welding lecturers and trainers
- Welding inspectors
- International Institute of Welding (IIW)/JWES welding engineers

### Objectives

This course is about the repair of welding for the wear and erosion (thinning) of pressure and process equipment and also includes the repair of cracks.

### Course topics

1. Design and fabrication of pressure equipment
2. Metallic materials degradation in pressure equipment and their countermeasures
3. Post-construction codes
4. Guidelines for repair welding of pressure equipment
5. Repair welding methods
6. Repair welding for carbon steels and Cr-Mo steels
7. Repair welding for stainless steels and nickel alloys
8. Corrosion problems and repair welding
9. Aged metallic materials and repair welding

### Course duration

2 days

**Pre-requisite(s)**

No previous working experience is required.

**Certificate awarded**

Certificate of attendance