Operate Augmented Reality (AR) Application Software
PRE-CTS-1001-1.1

Code: OARA Duration: 14.5 Hours

Synopsis:

As part of the industry 4.0 digital transformation initiatives, electronics, biotechnology and precision engineering industries have evolved their capabilities through the intervention of digital technologies. Digitization as part of Industrial Internet of Things transformation is being introduced in the overall work process from design, prototype, production to supply chain management. In the advancement of immersive technology, Augmented Reality (AR) technology is being introduced to optimise and improve the productivity and efficiency in the manufacturing operation. Especially in the areas of real time factory planning, technical troubleshooting and repair, predictive and preventive equipment maintenance, just in time and effective safety and technical training and quality assurance.

In this module, it will provide participants an overview of immersive technology in the industry. This is to prepare paticipants to be mentally ready for immersive technology. Then we will equip them with the knowledge and skills on how to operate AR application software so that they can increase efficiency in their work processes.

Course Objective:

On completion of this module, participants will be able to perform AR application.

Course Outline:

The knowledge and skills covered in this module include:

- Define Immersive Technology
- Compare Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR)
- Describe the evolution of Immersive Technology
- Explain the concept and working principles of AR technology
- Identify different AR technologies and tools and their capabilities, benefits and limitations
- Identify and perform use case of AR applications in various work processes and procedures
- Perform data visualisation using AR applications for decision making
- Perform troubleshooting skills on AR equipment failures

For Whom:

Suitable for Assemblers, Machine Specialist, Production Technician or Machinist from Manufacturing, Precision Engineering, Aviation, Electronics or Biomedical sectors.

Entry Requirements:

Participants are assumed to:

- have intermediate computer and digital literacy.
- have a basic knowledge of the Singapore Workplace Safety and Health requirements;
- be able to follow written and oral work instructions;
- Be able to listen and speak English at a proficiency level equivalent to the Employability Skills System (ESS) level 3 and above;
- Be able to read and write English at a proficiency level equivalent to ESS level 3 and above; and
- Be able to manipulate numbers at a proficiency level equivalent to ESS level 3 and above.

A screening will be conducted to ascertain the participant suitability.

Training Medium:

This module is conducted in English.

Training Methodology:

This module is delivered through e-learning, lectures, demonstration,self-reflection, group activities and peer practices.

Assessment Methodology:

Practical and written assessments are conducted at the end of the training module.

Certification:

An individual who completes the module, includes the elearning module, will be awarded a Statement of Attainment (SOA).