

Manage Statistical Processes and Data Analysis in a Technical Environment (Blended)

ELE-PIN-4003-1.1

Code: MSPDATE

Duration: 16 Hours

Synopsis:

This module is developed to enable learners to acquire knowledge and skills on engineering statistics and data analysis to solve engineering problems, and optimise performances of the processes, products and equipment. Learners will also have a better understanding of the fundamentals and applications of Statistical Process Control (SPC), and the ability to identify, monitor, and confirm the various types of variation through statistical analysis.

Course Objective:

On completion of this module, learners will be able to perform systematic process approaches in making decisions through statistical analysis and so promote effectiveness in solving and selecting the best solution towards operation-related issues.

Course Outline:

The knowledge and skills covered in this module include:

Skills:

- Determine the different sources of variation
- Monitor control charts from process capability
- Identify abnormal trends in the control chart
- Perform analysis to identify sources of variation
- Confirm sources of variation

Knowledge:

- Fundamental concept of SPC and its methodology
- Types of control chart, sampling plan, Process Control and Process Capability
- Usage of monitoring tools
- Types of Statistical Analysis

For Whom:

Suitable for Engineers, Professionals, Managers and Executives (PMEs).

Entry Requirements:

Participants are assumed to:

- Have a basic knowledge of the Singapore Workplace Safety and Health requirements;
- Be able to listen, read and write English at a proficiency level equivalent to the Employability Skills System (ESS) level 6;
- Be able to manipulate numbers at a proficiency level equivalent to Employability Skills System (ESS) level 6.

Training Medium:

This module is conducted in English.

Training Methodology:

This module is delivered through e-learning, lectures, group discussions and case studies.

Essential Requirement:

Participants are required to bring their personal laptop for the work assignment.

Assessment Methodology:

The assessment is conducted through oral/written assessment, work assignment and presentation.

Certification:

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