

# Process Control and Monitoring of Power and Process Plants

Course Code: EPG03

SFC-Eligible | Course Reference Number: TGS-2022011359

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## COURSE OBJECTIVES

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Upon completion of this course, participants will be able to:

- Understand the basic principles of instrumentation & process control
- Understand modern day power plant DCS & PLC based automation system
- Understand logic gates, shutdown system logic and voting strategy and its reliability
- Understand the basic operation (start-up & shutdown) of the gas turbines (GT), steam turbines (ST), heat recovery steam generator (HRSG) as well as auxiliary equipment
- Understand monitoring of plant for deviation from normal operating limits
- Review of operational data & identifying key areas of variation
- Review plant start-up and shutdown by plant simulation exercises

## MAIN CONTENTS

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- Introduction to Distributed Control System
- Introduction to Process Control System
- Protection instrumentation for GT, ST and HRGS
- Review of GT and ST protection logics & algorithms
- List of GT-ST-HRSG protection logics & algorithms
- Unit start-up & shutdown

## METHODOLOGY

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Lecture

## TARGET AUDIENCE

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Engineering and technical staff working in the power generation industry

## COURSE DETAILS

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Duration	:	14 hours
Mode of Delivery	:	Face-to-face or Synchronous E-learning
Certification	:	SIPG Certificate of Completion
PDU by PE Board	:	12
Additional Requirement/s	:	Not applicable

## COURSE FEES

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Full Course Fee	:	S\$1,400 (before GST)
For Singapore Citizens/PR/LTVP+*	:	S\$420 (before GST)
For Singapore Citizens (40 years old and above)	:	S\$140 (before GST)

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## ADDITIONAL REMARKS

- Trainee must attain at least 75% attendance rate and pass the assessment to receive Certificate of Completion and funding grant (if applicable).
- Subsidy of up to 70% is applicable for Singapore Citizens, Permanent Residents or Long-Term Visitor Pass Plus (LTVP+) Holders, subject to funding agency's approval.
- Enhanced subsidy of up to 90% is applicable for Singapore Citizens aged 40 years and above, subject to funding agency's approval. Note that GST payable will be computed from fee after 70% funding.
- Professional Development Unit (PDU) is applicable for Professional Engineers registered under the Professional Engineers (PE) Board only.
- All published fees are subject to prevailing GST.

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## CONTACT US

For more information, please contact SIPG at +65 6916 7930 or email [training-institute@spgroup.com.sg](mailto:training-institute@spgroup.com.sg).

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