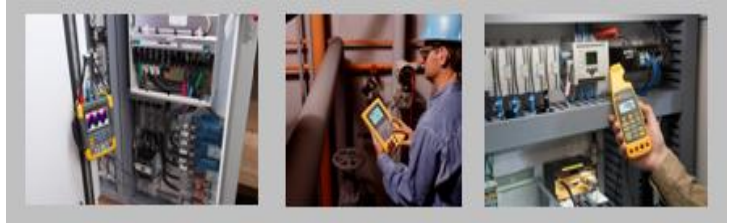


# Industrial Field Maintenance and Troubleshooting Workshop



Fluke Industrial Field Maintenance and Troubleshooting Workshop is carefully designed to cater for Field Specialists and Engineers involved in Electrical Signal Troubleshooting and Industrial Bus signal problems.

This workshop introduces effective solutions to handle Common Electrical Signal Troubleshooting with Signal Analysis that will be very useful in various industries.

We will also cover FieldBus Electrical Signals issues from PLC or slave devices riding on industrial Fieldbus networks like Profibus, Foundation FieldBus, ModBus, with problems of random machine resets. You will get to learn about some effective tools to diagnose such issues in a control system.

In addition, other topics include maintenance/troubleshooting of Variable Speed Drives which are commonly used in many production shop floors and industrial applications. The training will also involve troubleshooting of Industrial Process Issues with Fluke's wide range of Process Tools. Troubleshooting and maintenance aspects of process instrumentations such as temperature/pressure transmitters and 4 to 20mA control loop will be introduced too.

Five modules will run throughout the day:

- Module 1 – Common Electrical Signals Troubleshooting with Signal Analysis
- Module 2 – How to Diagnose Electrical Signal issues in Industrial Field Bus Networks
- Module 3 – Troubleshooting and Maintenance of Variable Speed Drives
- Module 4 – Troubleshoot, Maintain and Calibrate Temperature/Pressure Transmitters, Sensors and 4 to 20mA Control Loops
- Module 5 – Instrument Calibration Management and Documentation

This workshop will be based on Fluke Advanced Diagnostic Tools, a complete range of rugged industrial tools that offer effective choices of solutions for pinpointing Electrical Signal and Process Control System Signal issues.

These tools include:

- Fluke 190 Series II Scopemeters
- Fluke 2x5 Series ScopeMeter with Bus Health Analysis Functions
- Fluke 74X Series Documenting Process Calibrators
- Fluke 77X Series mA Process Clamp Meters
- Fluke 72X Series Multifunction Process Calibrators

**What you will learn:**

- Fundamentals of Electrical Signal and Industrial Bus Signal
- Effective solutions and tools for identification of electrical signal issues in manufacturing and process industries

- How to capture and analyze the signals with the latest Fluke ScopeMeter and Process Tools
- Real-world applications and examples
- How to select the right tool for your application

**Who should attend:**

- Plant electricians/engineers
- Commercial electrical contractors
- Facilities maintenance technicians/engineers
- Process technicians/engineers
- Field service technicians/engineers

**What you will receive:**

- 7 PDU points for professional engineers
- A free Motor and Drive Troubleshooting book worth USD66
- Effective solutions to identify Electrical Signals Issues with enhanced efficiency
- Exposure to the right tools to handle various Industrial bus or electrical signals issues
- Reduce expensive plant downtime by using maintenance techniques and effective tools
- Minimize equipment failures with early failure detection
- Great networking session! Learn the best experience & tips from people of various industries
- Certification of attendance

**About our speakers:**

1) *Mr. Joseph Ong*, Senior Product Consultant  
**Fluke South East Asia Pte Ltd**

Joseph has a degree of Master in Information Technology from University of Newcastle, a Level II Infrared Thermography certificate and Level I Vibration Analyst by Mobius, ASNT

He is currently the Senior Product Consultant in Fluke South East Asia Pte Ltd. He has more than 16 years of experience in pre-sales and post-sales application supports on electrical and electronic testing instruments. He is a very experienced trainer in power quality, and has been conducting regular product training and seminar both in Singapore and the regional countries.



2) *Mr. Jeremy Ang*, Product Manager  
**Fluke South East Asia Pte Ltd**

Jeremy has a Bachelors degree in Business & Computing.

He is currently the product manager in Fluke South East Asia Pte Ltd and has experience with Satellite System, RFID System design and Industrial Automation for over 10 years. His expertise is in technical consultation and he provides regular training to our customers. He also conducts seminars in the South East Asia region.

***Hurry, sign up now as seats are limited!***  
***To sign up, send in the registration form at the next page.***

## Registration Form

# Industrial Field Maintenance and Troubleshooting Workshop

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**Course Information**

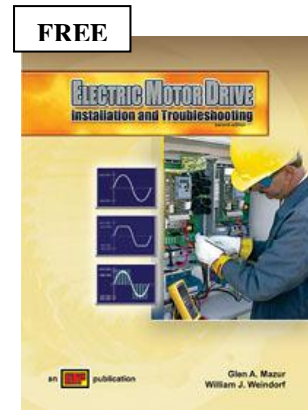
Venue: Fluke South East Asia Pte Ltd  
 60 Alexandra Terrace #03-16  
 The Comtech (Lobby D)  
 Singapore 118502

Time: 9.00am - 5.00pm

Course Fee: S\$199\* excluding GST

\*Course fee is inclusive of free Electric Motor Drive Installation and Troubleshooting book worth USD66, training materials, certificate of attendance, 2 tea breaks and lunch.

- Date: 09 Mar 2012   
 18 May 2012   
 24 Aug 2012   
 09 Nov 2012



To register, please fill up this portion and send it to:  
 Miss Joanna Wong at [Joanna.wong@fluke.com](mailto:Joanna.wong@fluke.com) or fax it to +65 6799 5577

**Yes, I / we will be attending for this workshop.**

Participant Name \_\_\_\_\_ Designation \_\_\_\_\_  
 Email \_\_\_\_\_ Direct Tel \_\_\_\_\_  
 Participant Name \_\_\_\_\_ Designation \_\_\_\_\_  
 Email \_\_\_\_\_ Direct Tel \_\_\_\_\_  
 \*Contact Person \_\_\_\_\_ Designation \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 Tel \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_

\* Please complete if contact person is different from participant's name(s).

For more information, please contact:  
 Ms. Joanna Wong (65) 6799-5575 Email: [Joanna.wong@fluke.com](mailto:Joanna.wong@fluke.com)  
 Ms. Claryce Lim (65) 6799-5204 Email: [Claryce.lim@fluke.com](mailto:Claryce.lim@fluke.com)