MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

MULTIPHASE FLOWMETERS

"Master the Fundamentals and Applications of Multiphase Flowmeters in Oil & Gas Operations."

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

This intensive 3-day course provides comprehensive knowledge on the theory, design, selection, operation, and maintenance of multiphase flowmeters widely used in oil and gas production. Participants will learn to accurately measure the simultaneous flow of oil, gas, and water mixtures, enabling improved production monitoring and reservoir management.

Objectives

By the end of this course, participants will be able to:

- Understand the principles and types of multiphase flowmeters
- Analyze the challenges in multiphase flow measurement
- Select appropriate flowmeter technologies for field applications
- Perform basic operation, troubleshooting, and maintenance
- Interpret flowmeter data to support production optimization

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

Why Attend

Accurate multiphase flow measurement is critical for optimizing production and managing reservoirs efficiently. This course equips engineers and technicians with practical skills to enhance measurement reliability and reduce operational costs.

Target Audience

- Petroleum and production engineers
- Process engineers and field operators
- Instrumentation and control technicians
- Flow assurance specialists
- Oil and gas project managers

Individual Benefits

- Gain practical understanding of multiphase flowmeter technologies
- Improve decision-making on equipment selection and maintenance
- Enhance operational efficiency and production forecasting
- Reduce measurement uncertainty and downtime

Organizational Benefits

- Optimize oilfield production monitoring systems
- Increase equipment uptime and reliability
- Support better reservoir management strategies
- Enhance safety and compliance with industry standards

Instructional Methodology

- Interactive lectures with technical illustrations
- Case studies from oil & gas fields
- Hands-on troubleshooting exercises
- Group discussions and problem-solving sessions
- Use of industry-standard flowmeter manuals and tools

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable) Training Hours: 07:30 AM – 03:30 PM Daily Format: 3–4 Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Multiphase Flow & Flow Regimes

- Module 1 (07:30 – 09:30): Introduction to Multiphase Flow in Oil & Gas Production
- Module 2 (09:45 – 11:15): Fluid Properties and Phase Behavior
- Module 3 (11:30 – 01:00): Flow Regimes, Flow Patterns, and Challenges in Measurement
- Module 4 (02:00 – 03:30): Safety and Environmental Considerations in Flow Measurement

Day 2: Overview of Multiphase Flowmeter Technologies

- Module 1 (07:30 – 09:30): Mechanical and Differential Pressure Flowmeters (Venturi, Orifice, Cone)
- Module 2 (09:45 – 11:15): Nuclear and Gamma Ray Flowmeters
- Module 3 (11:30 – 01:00): Coriolis and Electrical Flowmeters (Capacitance, Impedance)
- Module 4 (02:00 – 03:30): Emerging Technologies: Ultrasonic and Optical Flowmeters

Day 3: Installation, Operation & Data Acquisition

- Module 1 (07:30 – 09:30): Best Practices in Flowmeter Installation and Calibration
- Module 2 (09:45 – 11:15): Data Acquisition Systems and Signal Processing
- Module 3 (11:30 – 01:00): Interpretation of Flowmeter Data for Production Optimization
- Module 4 (02:00 – 03:30): Hands-On Workshop: Reading and Analyzing Flow Data (Simulation)

Day 4: Troubleshooting & Maintenance

- Module 1 (07:30 – 09:30): Common Operational Issues and Diagnostic Techniques
- Module 2 (09:45 – 11:15): Preventive Maintenance Procedures and Scheduling
- Module 3 (11:30 – 01:00): Case Studies: Problem Solving in Field Applications
- Module 4 (02:00 – 03:30): Practical Exercise: Troubleshooting Scenarios (Group Activity)

Day 5: Advanced Topics & Certification

- Module 1 (07:30 – 09:30): Integration of Multiphase Flowmeters with SCADA and Control Systems
- Module 2 (09:45 – 11:15): Regulatory Standards and Industry Compliance
- Module 3 (11:30 – 01:00): Final Review & Q&A Session
- Module 4 (02:00 – 03:30): Final Exam, Course Wrap-Up, and Certification Presentation

Certification

Participants will receive a Certificate of Completion confirming their expertise in multiphase flowmeter fundamentals and operational best practices.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

Follow us: **Facebook** **Twitter** **YouTube** **LinkedIn** **Instagram**

© Material published by MAWA Events shown here is copyrighted. All rights reserved. Any unauthorized copying, distribution, use, dissemination, downloading, storing (in any medium), transmission, reproduction or reliance in whole or any part of this course outline is prohibited and will constitute an infringement of copyright.