MAWA EVENTS

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

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

DIAGNOSIS AND TROUBLESHOOTING OF SBR, ANAEROBIC DIGESTION, AND CENTRIFUGE SYSTEMS

"Improving operational reliability and process performance through effective diagnosis and troubleshooting of treatment systems."

Schedule

Date	Venue	Fees
19 – 20 Oct 2026	Online	USD 700 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Sequencing Batch Reactors (SBR), anaerobic digestion, and centrifuge systems are critical components of modern wastewater and sludge treatment operations. Operational issues in these systems can lead to process instability, safety hazards, environmental non-compliance, and increased operating costs. Effective diagnosis and troubleshooting skills are therefore essential for maintaining safe, efficient, and compliant treatment processes.

This 2-day intensive online training equips participants with practical knowledge to identify, analyze, and resolve common operational problems in SBR, anaerobic digestion, and centrifuge systems. Through real-world examples, process analysis, and interactive discussions, participants will develop a structured approach to troubleshooting while improving process reliability, safety, and performance.

Objectives

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

- Understand the operating principles of SBR, anaerobic digestion, and centrifuge systems.
- Identify common process upsets and performance issues.
- Apply systematic troubleshooting techniques to diagnose operational problems.
- Improve process stability, efficiency, and safety.
- Reduce downtime, environmental risks, and operational costs.

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Why Attend

- Gain practical troubleshooting skills for critical treatment systems.
- Improve operational efficiency and environmental compliance.
- Learn how to identify root causes of process failures.
- Enhance safety and risk management in treatment operations.
- Apply best practices to optimize system performance.

Target Audience

This program is designed for:

- Health, safety, and environmental (HSE) professionals.
- Wastewater and sludge treatment plant operators.
- Process, environmental, and chemical engineers.
- Maintenance and reliability personnel.
- Supervisors and technical managers responsible for treatment systems.

Individual Benefits

Key competencies that will be developed include:

- Ability to diagnose and troubleshoot SBR, anaerobic digestion, and centrifuge systems.
- Improved understanding of process control and operational parameters.
- Skills to manage process upsets safely and effectively.
- Enhanced decision-making and problem-solving capabilities.
- Greater confidence in managing complex treatment processes.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved operational reliability and system performance.
- Reduced environmental incidents and compliance risks.
- Enhanced safety in treatment plant operations.
- Lower maintenance and operational costs.
- Stronger technical capability within operational teams.

Instructional Methodology

The course follows a blended online learning approach combining theory with practice:

- Strategy Briefings – Overview of system design, operating principles, and performance indicators.
- Case Studies – Analysis of real-world operational failures and corrective actions.
- Interactive Discussions – Troubleshooting scenarios and experience sharing.
- Practical Exercises – Step-by-step diagnosis of common process issues.
- Tools – Troubleshooting checklists, performance monitoring templates, and process diagrams.

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 9:00 AM – 4:00 PM Daily Format: 3–4 Learning Modules | Coffee breaks as scheduled | Lunch Break: 01:00 – 02:00

Day 1: SBR and Anaerobic Digestion System Diagnosis

Module 1: Fundamentals of SBR Systems (09:00 – 10:30)

- SBR process principles and cycle phases
- Key operating parameters and control strategies
- Common performance indicators and issues

Module 2: Troubleshooting SBR Performance Problems (10:45 – 12:15)

- Poor settling, foaming, and bulking issues
- Nutrient removal and effluent quality problems
- Root cause analysis techniques

Module 3: Anaerobic Digestion Principles (01:00 – 02:30)

- Biological processes and digestion stages
- Operating conditions and performance monitoring
- Safety considerations and gas management

Module 4: Diagnosing Anaerobic Digestion Upsets (02:45 – 04:00)

- Acidification, low gas production, and toxicity issues
- Process control adjustments and corrective actions

Day 2: Centrifuge Systems and Integrated Troubleshooting

Module 5: Centrifuge Systems in Sludge Treatment (09:00 – 10:30)

- Types of centrifuges and operating principles
- Key performance parameters and operational limits

Module 6: Centrifuge Troubleshooting and Optimization (10:45 – 12:15)

- Poor solids capture and high polymer consumption
- Mechanical and operational fault diagnosis

Module 7: Integrated System Troubleshooting (01:00 – 02:30)

- Interaction between biological treatment and sludge handling
- Process monitoring and data-driven decision-making

Module 8: Best Practices, Case Studies, and Course Review (02:45 – 04:00)

- Review of integrated case studies
- Key takeaways, action planning, and Q&A

Certification

Participants will receive a Certificate of Completion in Diagnosis and Troubleshooting of SBR, Anaerobic Digestion, and Centrifuge Systems, validating their competence in diagnosing, troubleshooting, and optimizing wastewater and sludge treatment systems in a safe and compliant manner.

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Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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