MAWA EVENTS

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

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

CERTIFIED INDUSTRIAL ENGINEER (CIE)

"Design Smarter Systems, Improve Productivity, and Lead Operational Excellence."

Schedule

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

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

Introduction

The Certified Industrial Engineer (CIE) program is designed to prepare professionals with advanced knowledge and applied skills in optimizing systems, processes, and operations. This intensive 5-day training covers core areas such as systems engineering, productivity improvement, quality control, and supply chain optimization. Whether you're managing manufacturing systems, service operations, or logistics networks, the CIE credential validates your expertise and ability to drive efficiency and cost savings.

Objectives

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

- Understand the key domains and knowledge areas covered under CIE certification
- Apply lean manufacturing and productivity analysis techniques
- Use industrial engineering tools to optimize workflows and reduce waste
- Analyze operations using work measurement and time study
- Improve systems performance across production, logistics, and services

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Why Attend

This certification enhances your professional credibility and opens new career opportunities in manufacturing, engineering, logistics, and operations management. Whether you\'re aiming to lead improvement projects or optimize technical systems, this course gives you the practical foundation and exam readiness required.

Target Audience

- Industrial Engineers and Process Engineers
- Production and Operations Managers
- Logistics, Manufacturing, and Plant Supervisors
- Quality Assurance Professionals
- Anyone preparing for CIE certification or seeking to improve system efficiency

Individual Benefits

- Prepare thoroughly for CIE certification with expert instruction
- Build in-demand skills in system optimization and operations analysis
- Increase your impact, credibility, and leadership potential
- Gain a strong foundation in lean, quality, and productivity concepts

Organizational Benefits

- Improve system efficiency, process control, and resource utilization
- Reduce downtime, waste, and production costs
- Build engineering leadership that aligns technical systems with business goals
- Establish a performance-driven culture and operational excellence mindset

Instructional Methodology

- Instructor-led sessions with real-world case examples
- Hands-on simulations and workflow analysis exercises
- Industry-standard templates and tools
- Practice quizzes and CIE exam-focused preparation
- Interactive workshops and group assignments

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of Industrial Engineering

- Module 1: Introduction to CIE & Industrial Engineering Principles (07:30 – 09:30)
- Module 2: Systems Thinking and Engineering Process Overview (09:45 – 11:15)
- Module 3: Industrial Engineering in Manufacturing and Service Sectors (11:30 – 01:00)
- Module 4: Work System Design & Ergonomics Principles (02:00 – 03:30)

Day 2: Methods Engineering and Productivity Analysis

- Module 1: Work Measurement Techniques – Time Study, PMTS (07:30 – 09:30)
- Module 2: Motion Economy, Work Sampling & Process Charts (09:45 – 11:15)
- Module 3: Lean Manufacturing Concepts – 7 Wastes & Value Stream Mapping (11:30 – 01:00)
- Module 4: Kaizen, 5S, and Continuous Improvement (02:00 – 03:30)

Day 3: Quality, Safety, and Performance Management

- Module 1: Total Quality Management (TQM) & Six Sigma Overview (07:30 – 09:30)
- Module 2: Statistical Quality Control (SQC) & Control Charts (09:45 – 11:15)
- Module 3: Safety, Human Factors & Risk Mitigation (11:30 – 01:00)
- Module 4: Key Performance Indicators (KPIs) & Balanced Scorecard (02:00 – 03:30)

Day 4: Operations Research and Supply Chain Optimization

- Module 1: Linear Programming, Queuing Models & Simulation (07:30 – 09:30)
- Module 2: Inventory Control Models & EOQ Calculations (09:45 – 11:15)
- Module 3: Facility Layout & Materials Handling (11:30 – 01:00)
- Module 4: Supply Chain Mapping and Optimization (02:00 – 03:30)

Day 5: Project Integration and Certification Preparation

- Module 1: Integrated Project Planning & Industrial Engineering Case Study (07:30 – 09:30)
- Module 2: Mock Exam – CIE Style Questions and Review (09:45 – 11:15)
- Module 3: Soft Skills – Communication, Ethics, and Team Collaboration (11:30 – 01:00)
- Module 4: Final Exam, Feedback Session & Certification Wrap-Up (02:00 – 03:30)

Certification

Participants who complete the course and pass the final assessment will receive a Certificate of Completion – Certified Industrial Engineer (CIE) Preparation. This course prepares individuals to confidently sit for external or internal CIE certification assessments and equips them with the practical tools to perform successfully in industrial engineering roles.

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.

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