

NEW CONSTRUCTION EQUIPMENTS FOR CONSTRUCTION ROAD, BRIDGE, TUNNELS AND HIGH RISE PROJECTS

"Build Smart, Build Strong – Equip Yourself with Modern Construction Machinery Knowledge."

Schedule

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

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

Introduction

Modern construction projects demand specialized, efficient, and intelligent equipment to deliver safe and cost-effective outcomes. This course explores the latest advancements in construction machinery used in road building, bridge erection, tunnel boring, and high-rise construction. Participants will gain a comprehensive understanding of equipment selection, operation, safety, and productivity enhancement.

Objectives

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

- Identify and categorize modern construction equipment used in key civil projects
- Understand the operating principles and applications of different machinery
- Assess the productivity, efficiency, and cost-effectiveness of equipment
- Apply best practices in machinery safety and maintenance
- Make informed decisions on equipment procurement and utilization

Why Attend

- Learn about the newest equipment transforming infrastructure construction
- Stay current with technological innovations and global trends
- Reduce project delays and costs with optimal equipment planning
- Improve safety and quality control on job sites

Target Audience

- Construction Managers and Site Engineers
- Civil and Structural Engineers
- Equipment Procurement Managers
- Project Planners and Schedulers
- Contractors and Consultants

Individual Benefits

- Sharpen technical knowledge on cutting-edge construction equipment
- Enhance project planning and execution efficiency
- Improve safety and risk assessment capabilities
- Boost employability and professional value in large-scale projects

Organizational Benefits

- Equip teams with knowledge to optimize machinery use
- Reduce operational downtime and maintenance costs
- Improve quality and speed of infrastructure delivery
- Make informed procurement and logistics decisions

Instructional Methodology

- Visual presentations and 3D equipment simulations
- Case studies from major infrastructure projects
- Group discussions and workshops
- On-site equipment video reviews
- Interactive Q&A and decision-making exercises

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: Introduction to Modern Construction Machinery

- Evolution of construction equipment
- Classifications and functions
- Factors affecting equipment selection
- Trends in automation and smart machinery

Day 2: Equipment for Road & Bridge Construction

- Excavators, bulldozers, graders, pavers, and rollers
- Bridge-launching girders, cranes, and hoisting systems
- Asphalt batching plants and mobile concrete mixers
- Machinery productivity and terrain adaptability

Day 3: Tunnel Construction Equipment

- Tunnel Boring Machines (TBM): types and uses
- Shotcrete machines, ventilation systems, dewatering pumps
- Muck transport systems and segment erection equipment
- Safety mechanisms and ground stability tools

Day 4: High-Rise Construction Equipment

- Tower cranes, passenger hoists, hydraulic jacks
- Slipform systems, concrete pumps, climbing formwork
- Lifting equipment and mobile scaffolding
- Monitoring and automation systems in tall building equipment

Day 5: Equipment Management and Case Studies

- Maintenance strategies and spare part logistics
- Equipment lifecycle cost analysis
- Global case studies: Mega infrastructure projects
- Workshop: Equipment planning for a simulated project

Certification

All participants will be awarded a Certificate of Completion titled: “New Construction Equipment for Roads, Bridges, Tunnels & High-Rise Projects”

Why Choose MAWA Events

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In-House / Customized Training

Interested in running this course for your team?

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