MAWA EVENTS

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

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

MECHANICAL POWER TRANSMISSION - GEARS, CHAINS, SPROCKETS, BELTS & BEARINGS

"Mastering Power Transmission Systems for Mechanical Efficiency"

Schedule

Date	Venue	Fees (Face-to-Face)
06 – 10 Sep 2026	Doha, Qatar	USD 3495 per delegate

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

Introduction

The Mechanical Power Transmission - Gears, Chains, Sprockets, Belts & Bearings course offers an in-depth understanding of power transmission components and their application in mechanical systems. This 5-day course will provide participants with the necessary knowledge and hands-on experience to effectively work with mechanical power transmission systems, focusing on key components such as gears, chains, sprockets, belts, and bearings.

Through a blend of theoretical and practical training, participants will learn to identify, analyze, and maintain these components to ensure optimal performance, safety, and efficiency. The course is designed to cater to professionals in mechanical engineering, plant maintenance, and manufacturing industries.

Objectives

The Mechanical Power Transmission - Gears, Chains, Sprockets, Belts & Bearings course offers an in-depth understanding of power transmission components and their application in mechanical systems. This 5-day course will provide participants with the necessary knowledge and hands-on experience to effectively work with mechanical power transmission systems, focusing on key components such as gears, chains, sprockets, belts, and bearings.

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Why Attend

- Gain a comprehensive understanding of power transmission systems.
- Learn to apply theoretical knowledge in real-world mechanical systems.
- Enhance your troubleshooting and problem-solving skills related to transmission components.
- Network with industry professionals and experts.
- Improve your maintenance practices to ensure the longevity and efficiency of mechanical systems.

Target Audience

This program is designed for:

- Mechanical engineers and technicians working with power transmission systems.
- Maintenance personnel in manufacturing, plant, and industrial sectors.
- Mechanical design engineers involved in the specification and design of transmission systems.
- Professionals in the automotive and machinery industries.

Individual Benefits

Key competencies that will be developed include:

- In-depth knowledge of mechanical power transmission systems.
- Proficiency in selecting and using gears, chains, sprockets, belts, and bearings.
- Enhanced skills in troubleshooting and maintenance of power transmission components.
- A practical understanding of the installation and operation of mechanical systems.
- Improved safety practices and operational efficiency in mechanical systems.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced capability to ensure the smooth operation of mechanical power transmission systems.
- Improved maintenance strategies that reduce downtime and prevent system failures.
- The ability to optimize system efficiency and extend the lifespan of key components.
- A culture of continuous improvement in managing mechanical power transmission systems.
- Practical troubleshooting and problem-solving skills that minimize operational disruptions.

Instructional Methodology

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

- Strategy Briefings – Introduction to power transmission principles, components, and systems.
- Case Studies – Real-world examples of successful power transmission system applications.
- Workshops – Hands-on exercises with gears, chains, sprockets, belts, and bearings.
- Peer Exchange – Group discussions and knowledge sharing on mechanical systems and troubleshooting.
- Tools – Templates and checklists for installation, maintenance, and troubleshooting.

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Course Outline

Detailed 5-Day Course Outline

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: Introduction to Power Transmission Systems

- Module 1: Basics of Mechanical Power Transmission (07:30 – 09:30)
- Overview of mechanical power transmission.
- Types of power transmission systems: gears, chains, sprockets, belts, and bearings.
- Key principles of operation and efficiency.
- Module 2: Understanding Gears (09:30 – 11:30)
- Types of gears and their applications.
- Gear design and materials.
- Calculations for gear ratios and power transmission.

Day 2: Chains and Sprockets

- Module 3: Chain Transmission Systems (07:30 – 09:30)
- Understanding chain types and applications.
- Proper installation and maintenance techniques for chains.
- Troubleshooting common chain issues.
- Module 4: Sprockets and Their Role (09:30 – 11:30)
- Types of sprockets and their uses.
- Sprocket installation and alignment.
- Adjusting sprocket and chain systems for optimal performance.

Day 3: Belts and Bearings

- Module 5: Belt Transmission Systems (07:30 – 09:30)
- Types of belts (V-belts, timing belts, etc.).
- Calculating belt tensions and power transmission.
- Maintenance and troubleshooting of belt systems.
- Module 6: Bearings in Power Transmission (09:30 – 11:30)
- Types of bearings and their functions.
- Bearing selection and lubrication techniques.
- Identifying bearing wear and failure modes.

Day 4: System Integration and Maintenance

- Module 7: Integrating Components into Power Transmission Systems (07:30 – 09:30)
- Combining gears, chains, sprockets, belts, and bearings for system optimization.
- Alignment and installation best practices.
- Preventative maintenance strategies.
- Module 8: Troubleshooting Power Transmission Systems (09:30 – 11:30)
- Common issues and how to identify them.
- Techniques for diagnosing and fixing mechanical problems.
- Preventing system failures through regular maintenance.

Day 5: Practical Applications and Advanced Concepts

- Module 9: Advanced Transmission Systems (07:30 – 09:30)
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Advanced concepts in power transmission design.

- Incorporating modern materials and technologies into systems.
- Case studies of complex power transmission systems.
- Module 10: Final Q&A and Review (09:30 – 11:30)
- Recap of key learnings.
- Final questions and troubleshooting advice.
- Best practices for continued success in power transmission maintenance.

Certification

Participants will receive a Certificate of Completion in Mechanical Power Transmission – Gears, Chains, Sprockets, Belts & Bearings, recognizing their expertise in mechanical power transmission systems and maintenance 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.

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