Manufacturing Technology Training
An IMTMA initiative

Industrial Safety Management – Practical Approach to Hazard Identification, Risk Assessment & Workplace Safety
Date : 26 to 27 November, 2026
Venue : IMTMA Technology Centre, Bengaluru

Last date for registration 19 November 2026

INTRODUCTION

Industrial safety is essential to protect employees from workplace injuries, occupational illnesses, and life-threatening accidents while ensuring safe, healthy, and productive working conditions. Effective safety management helps prevent human suffering, reduce equipment damage, minimize production interruptions, avoid financial losses, and ensure compliance with applicable legal and regulatory requirements. This training programme focuses on hazard identification, risk assessment, machine and electrical safety, fire prevention, chemical handling, high-risk activities, incident investigation, and emergency preparedness. Through practical exercises, industrial case studies, and risk assessment activities, participants will learn how to identify hazards, evaluate risks, and implement effective preventive and protective measures. The programme aims to strengthen individual accountability, encourage employee participation, and foster a proactive safety culture where every employee takes responsibility for preventing accidents and protecting people, property, and the environment.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising 2 day programme on "**Industrial Safety Management – Practical Approach to Hazard Identification, Risk Assessment & Workplace Safety".**

FOCUS AREAS

DAY 1 – SAFETY FUNDAMENTALS, HAZARD IDENTIFICATION & CRITICAL SAFETY CONTROLS

Module 1 – Fundamentals of Industrial Safety

- Importance of Industrial Safety in Manufacturing
- Accident, Incident, Near Miss and Unsafe Act/Condition
- Causes of Accidents – Immediate, Basic and Root Causes
- Safety Responsibilities of Management, Supervisors and Employees
- Safety Culture and Employee Participation

Module 2 – Hazard Identification, HIRA & Risk Assessment

- Understanding Hazards and Risks
- Types of Workplace Hazards
- Hazard Identification Techniques
- HIRA / JSA Methodology
- Risk Assessment – Likelihood, Severity and Risk Ranking
- Identification of Existing and Additional Controls
- **Practical HIRA Exercise**

Module 3 – Hierarchy of Controls & Machine Safety

- Hierarchy of Controls – Elimination to PPE
- Selection of Effective Risk Controls
- Common Mechanical and Machinery Hazards
- Machine Guarding and Safety Devices
- Emergency Stops, Interlocks and Sensors
- Safe Operating and Maintenance Practices
- **Machine Safety Case Study**

Module 4 – Electrical Safety & LOTO

- Common Electrical Hazards
- Electrical Shock and Fire Prevention
- Electrical Panels, Earthing and Protection
- Lockout/Tagout (LOTO)
- Energy Isolation and Verification
- Arc Flash Awareness
- Electrical Safety Inspection – Do's and Don'ts
- **LOTO Case Study**

Module 5 – Fire Safety & Emergency Preparedness

- Fundamentals of Fire and Fire Classification
- Fire Prevention and Fire Extinguishers
- Emergency Exits and Evacuation
- Emergency Response Planning
- Roles and Responsibilities During Emergencies
- Mock Drills and Emergency Preparedness
- **Fire Emergency Scenario**

DAY 2 – OCCUPATIONAL SAFETY, HIGH-RISK ACTIVITIES & SAFETY IMPROVEMENT

Module 6 – Chemical, Material Handling & Occupational Health

- Chemical Hazards, Labelling and SDS
- Safe Chemical Storage and Handling
- Chemical Spill Prevention and Response
- Hazardous Waste Safety
- Manual Material Handling and Ergonomics
- Forklift, Crane and Lifting Safety
- Occupational Health Hazards and Workplace Hygiene
- **Chemical / Ergonomic Case Study**

Module 7 – High-Risk Activities & Contractor Safety

- Permit-to-Work System
- Work at Height
- Confined Space Entry
- Hot Work and Electrical Work
- Gas Testing and Atmospheric Monitoring
- Contractor Safety Management
- PPE, Competency and Supervision
- **High-Risk Activity Case Study**

Module 8 – Incident Investigation, Safety Audit & Safety Culture

- Incident and Near-Miss Investigation
- Evidence Collection and Root Cause Analysis
- **5 Why & Fishbone Analysis**
- Corrective and Preventive Actions
- Workplace Safety Inspection
- Safety Audit vs. Safety Inspection
- Safety Observations and Reporting
- Toolbox Talks and Safety Communication
- Building a **Proactive Safety Culture**
- **Incident Investigation & Workplace Inspection Exercise**

Practical Case Studies & Group Exercises

Throughout the two days, participants will work on practical situations such as:

- **HIRA/JSA preparation**
- Unsafe Act vs. Unsafe Condition identification
- Hierarchy of Controls exercise
- Machine guarding case study
- Electrical safety & LOTO scenario
- Fire emergency scenario
- Chemical spill response
- Incident investigation and Root Cause Analysis
- Workplace safety inspection
- Corrective action development

KEY TAKE AWAYS

By the end of the programme, participants will be able to:

- Identify workplace hazards and assess associated risks.
- Prepare basic **HIRA/JSA** for workplace activities.
- Apply the **Hierarchy of Controls** effectively.
- Recognise major machine, electrical, fire, chemical and material-handling hazards.
- Understand LOTO and Permit-to-Work requirements.
- Improve emergency preparedness and response.
- Conduct basic incident investigation and Root Cause Analysis.
- Identify unsafe acts and conditions through safety inspections.
- Develop meaningful corrective actions.
- Strengthen employee participation and safety communication.
- Contribute to developing a **proactive safety culture**.

PARTICIPATION FEE

Rs. 4999/-	Rs. 2500/-	Rs. 999/-	USD 200/-
+18% GST	+18% GST	+18% GST	
IMTMA Members/ Micro Companies/ Individuals/ IMTMA Non Members/ Others	**Professors**	**Student**	**Overseas Participants**

Group Concession : 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

PARTICIPANT PROFILE

This programme is designed for **Managers, Engineers, Supervisors and Safety Professionals** involved in manufacturing, engineering and industrial operations.

The programme will particularly benefit personnel from:

- Production & Manufacturing
- Maintenance
- Quality
- EHS / Safety
- Human Resources
- Engineering
- Projects
- Facilities
- Stores & Material Handling
- Contractors and Supervisory Teams

It will be relevant to organisations in **automotive and auto components, machine tools, hydraulics, engineering, aerospace, defence, fabrication, foundries, machining, sheet metal, plastics, electrical and electronics, capital goods and other manufacturing industries.**

PREREQUISITE

Participants are expected to have a basic understanding of **industrial operations and workplace practices**. Prior knowledge of safety management is desirable but not mandatory.

Participants are encouraged to bring examples of workplace safety issues, HIRA, incident cases or safety challenges from their organisation for discussion during the programme.

FACULTY

This programme will be conducted by, Ms. Ambika K.P,

Ms. Ambika K.P. is a seasoned QEHS, Sustainability and Management Systems professional with over 20 years of industry experience. She holds qualifications in Mechanical Engineering, Industrial Engineering and Industrial Safety Management (PG Diploma – equivalent to MTech.).

She is a Certified Lead Auditor for ISO 9001, ISO 14001, ISO 45001 and ISO 19443, with additional expertise in AS 9100, IATF 16949, PED, TPM and ISO 14064 and also a Certified TPM Facilitator Trainer with extensive experience in delivering professional training and awareness programmes.

She has held key professional roles with Wipro Enterprises and DNV Business Assurance, covering QEHS leadership, management-system implementation and certification auditing.

Her industry exposure includes hydraulics, aerospace, water treatment, additive manufacturing, automation and engineering sectors and her training methodology emphasises practical examples, industrial case studies, exercises and application-oriented learning.

For Registration Contact

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REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.