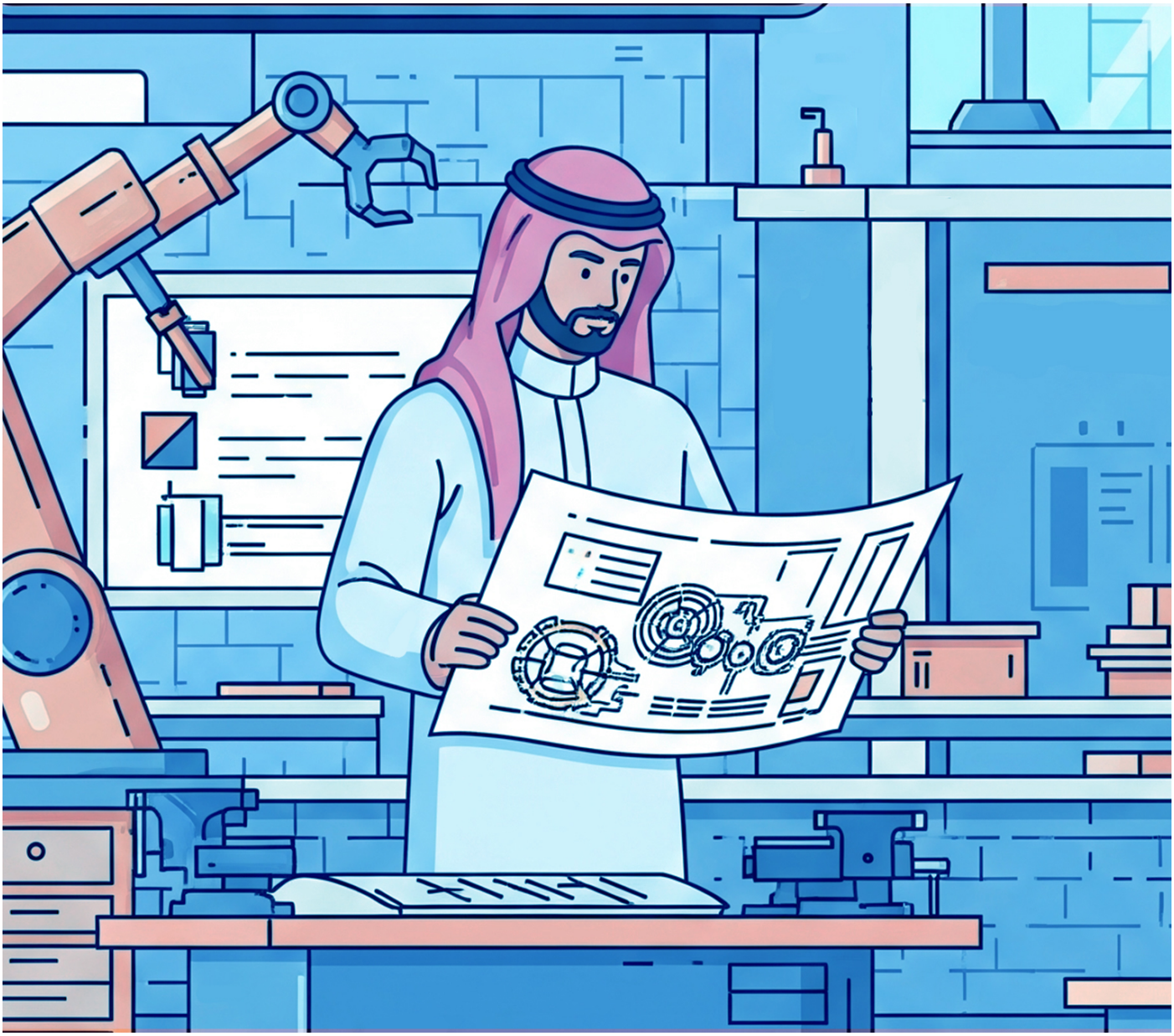
BOOST
THE LEADING TRAINING PROVIDER



Mechanical Engineering

Thermography Level 1

Course Introduction

This five-day course provides participants with a fundamental understanding of infrared thermography, its principles, applications, and safety considerations. It is designed for individuals looking to gain practical skills in thermal imaging and analysis for various industries, including building inspections, electrical maintenance, and predictive maintenance.

Target Audience

This course is suitable for technicians, maintenance personnel, quality assurance specialists, and anyone interested in learning about thermography and its applications.

Learning Objectives

- Understand the basic principles of infrared thermography.
- Identify various applications and benefits of thermography.
- Operate thermal imaging cameras effectively.
- Analyse and interpret thermal images for diagnostic purposes.
- Implement safety protocols when using thermography equipment.

Course Outline

- **01 DAY ONE**

Introduction to Thermography

Session 1: Basics of Thermography

- Introduction to infrared thermography and its history.
- Understanding infrared radiation and its properties.
- Key terminology related to thermography.

Session 2: Applications of Thermography

Overview of thermography applications in various industries:

- Electrical inspections
- Mechanical inspections
- Building diagnostics
- Predictive maintenance

Session 3: Safety Considerations

- Understanding safety measures when using thermographic equipment.
- Personal protective equipment (PPE) for thermography practitioners.

- **02 DAY TWO**

Equipment and Technology

Session 4: Introduction to Thermal Imaging Cameras

- Overview of thermal imaging camera components and functions.
- Selecting the right camera for specific applications.

Session 5: Operating Thermal Imaging Cameras

- Hands-on training on operating thermal cameras.
- Understanding camera settings and adjustments for optimal results.

Session 6: Practical Exercises

- Practical sessions using thermal cameras in controlled environments.
- Participants practice capturing thermal images under different conditions.

- **03 DAY THREE**

Image Analysis and Interpretation

Session 7: Understanding Thermal Images

- Basics of thermal image interpretation.
- Identifying hot and cold spots in thermal images.

Session 8: Data Analysis Techniques

- Using software for thermal image analysis.
- Understanding emissivity and its impact on readings.

Session 9: Case Studies

- Review of real-world case studies demonstrating thermography applications.
- Group discussions on findings and conclusions.

- **04 DAY FOUR**

Practical Applications

Session 10: Thermography in Electrical Inspections

- Techniques for inspecting electrical systems and components.
- Identifying potential faults through thermal imaging.

Session 11: Thermography in Building Inspections

- Assessing building envelope performance using thermography.
- Detecting moisture intrusion and insulation defects.

Session 12: Hands-On Practical Training

- Field exercises conducting thermographic inspections in real scenarios.
- Data collection and initial analysis of findings.

- **05 DAY FIVE**

Reporting and Certification

Session 13: Creating Thermography Reports

- Best practices for documenting and reporting thermography findings.
- Understanding report structure and content.

Session 14: Final Assessment and Q&A

- Participants take a practical assessment of their skills.
- Open Q&A session to clarify doubts and consolidate learning.

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 7, 2025	April 11, 2025	5 days	4250.00 $	UAE - Dubai
Sept. 1, 2025	Sept. 5, 2025	5 days	5950.00 $	USA - Texas
Dec. 1, 2025	Dec. 5, 2025	5 days	4250.00 $	UAE - Abu Dhabi