Certified Infrared Thermographer® Level II (IRT II)

QUANTITATIVE THERMOGRAPHY

📅 **Course Period : 5 Consecutive Days**
📝 **IRT II Exam : 5th Day**

HRDC CLAIMABLE COURSE

CERTIFICATION BY

infraspection institute

LUBETRAIN RESOURCES SDN BHD
www.lubetrainresources.com

Introduction

THE LEVEL II CERTIFIED INFRARED THERMOGRAPHER® course is a comprehensive five day program focused on the use of quantitative thermal imaging and precise temperature measurement in predictive and preventive maintenance, condition monitoring, quality assurance, and forensic investigations. Organized by Lubetrain Resources Sdn Bhd in collaboration with the Infraspection Institute, USA, one of the world's most established independent infrared training and certification bodies, this course is delivered by seasoned, practicing thermographers with extensive field experience.

Participants will gain in-depth knowledge of advanced infrared theory, equipment calibration, identification of measurement errors, cross-verification using contact thermometers, advanced imager functionality, and the use of infrared windows and filters. The course also covers setting temperature thresholds, assigning repair priorities, and generating detailed quantitative reports. Blending theory with practical application and real-world case studies, the training is designed to enhance learning in an interactive setting. Course fees include a Student Reference Manual and the Infraspection Level II Certification exam, conducted on the final day. Successful candidates will be awarded a Level II Certificate from Infraspection Institute, which fully complies with and exceeds the standards set by ASNT SNT-TC-1A.

Infrared certification is written proof that a person has completed formal infrared training and/or possesseses a certain skill set. Certification has long been one measure of thermographer competence within the infrared community much in the same way a diploma or degree is used among educational institutions. With over 40 years in business and over 10,000 graduates of our training courses worldwide, Infraspection Institute is the oldest and most respected name in infrared training and thermographer certification. Recognizing our reputation for excellence, smart engineers demand Infraspection Certified Infrared Thermographers® for their projects. The Infraspection Institute Certified Infrared Thermographer® program is compliant with international standards organizations such as ISO and ASNT.

SMRP APPROVED PROVIDER

Infraspection Institute is recognized by the Society for Maintenance & Reliability Professionals (SMRP) as an approved provider of continuing education and training aligned with key subject areas related to reliability and physical asset management.

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Course Outline 1

01

Thermometry Fundamentals

- Temperature scales and conversions
- Absolute and relative temperatures
- Classes and benefits of contact thermometers
- Classes and benefits of non-contact thermometers
- Identifying and reducing errors

02

Advanced IR Theory

- Units for measuring radiant power
- Relationship between power and temperature
- Planck's blackbody curves

03

Temperature Measurement Error Sources and Corrections

- Calibration
  - how IR sensors are calibrated
  - how to check calibration
  - calibration/accuracy specifications
- Reflectance
  - shielding techniques
  - measuring & compensating for with direct and reflector methods
- Emittance
  - how emittance varies
  - using default and table values
  - how to measure emittance
- Transmittance
  - filters to view through materials and atmospheres
  - filters to measure temperatures of material surfaces and atmospheres
  - measuring material transmittance
- Target Width/Distance Ratios
  - calculating target size/distance

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Course Outline 2

04

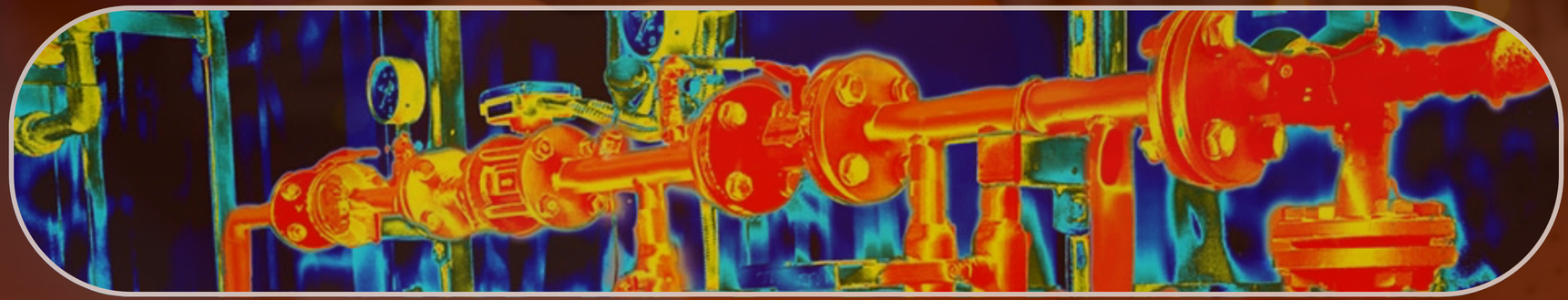
Traceable Temperature Limits: How Hot is Too Hot

- Delta T classifications
  - NETA, Mil Spec, and other standards
- Absolute temperature classifications
  - ANSI, IEEE, NEMA standards for electrical systems
  - correction formula for load and ambient temperature
  - other standards for mechanical systems
- Developing limits for your equipment

05

Preparing Quantitative Reports

- Data to gather
- Report procedures
- Image processing software capabilities
- Report generation software capabilities



How to become Certified IRT® II

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PREREQUISITE

01

Participants must hold a Level I Certified Infrared Thermographer® certification prior to enrolling in this Level II course.

TRAINING

02

To earn the Infraspection Certified Infrared Thermographer® Level II designation, a candidate must complete an Infraspection Institute Level II infrared training course.

EXAMINATION

03

After completing the course, participants may sit for the open-book certification exam, which is based on the course content.

A minimum passing score of 80% is required to receive the official Infraspection Institute Certified Infrared Thermographer® Level II Certificate. Certification is valid for life, with no renewal requirements or fees, making it a long-term professional credential.

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ELECTRICAL ENGINEERS
Responsible for electrical system integrity and diagnostics

MAINTENANCE TECHNICIANS
Involved in routine inspections and fault detection

Who Should Attend

This course is suitable for, but not limited to, the following professionals involved in thermography, maintenance, and reliability:

PLANT ENGINEERS
Overseeing facility operations and system performance

MAINTENANCE MANAGERS
Managing maintenance strategies and predictive programs

HRDC CLAIMABLE COURSE

Register Now

Contact Us

No. 5A, Jalan SS6/12,
Kelana Jaya, 47301 Petaling Jaya,
Selangor Darul Ehsan, Malaysia.

+603-7886 8550

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mail@lubetrainresources.com

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