

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Thermography for Electrical and Mechanical Inspection

5 days | Classroom training | English

SMART HORIZON

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Course content

Why attend

Infrared thermography detects overheating in electrical and mechanical equipment before it fails. This course covers thermography principles, camera operation, emissivity and reflected temperature, inspecting electrical panels, motors, bearings and steam systems, interpreting images, severity criteria and reporting.

Thermography can prevent fires and breakdowns quickly and safely. You will learn to perform and interpret infrared inspections.

Professional Problems This Course Is Designed to Solve

• Difficulty translating subject knowledge into practical workplace decisions.
• Inconsistent approaches to the activities covered in the course outline.
• Lack of a structured plan for applying and reviewing new skills.

Course methodology

Camera practice, image interpretation exercises, case studies and report writing.

Course objectives

By the end of this course, participants will be able to:
• Explain infrared thermography principles
• Operate thermal cameras correctly
• Account for emissivity and reflected temperature
• Inspect electrical and mechanical equipment
• Interpret thermal images and severity
• Write thermography inspection reports

Target audience

This course is suitable for:
• Maintenance technicians and engineers
• Electrical engineers
• Condition monitoring specialists
• Facility engineers
• Inspection staff



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Target competencies

Participants will develop competencies in:

- Thermal imaging
- Measurement accuracy
- Fault diagnosis
- Safety awareness
- Reporting

Course outline

Day 1: Thermography Principles

09:00–10:08	Heat transfer
10:08–11:00	Infrared radiation
11:00–11:30	**Coffee break**
11:30–11:45	Infrared radiation (continued)
11:45–12:53	Applications
12:53–14:00	Exercise

Day 2: Cameras and Measurement

09:00–10:08	Camera settings
10:08–11:00	Emissivity
11:00–11:30	**Coffee break**
11:30–11:45	Emissivity (continued)
11:45–12:53	Reflected temperature
12:53–14:00	Practice

Day 3: Electrical Inspection

09:00–10:08	Panels and connections
10:08–11:00	Load conditions
11:00–11:30	**Coffee break**



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11:30–11:45	Load conditions (continued)
11:45–12:53	Safety
12:53–14:00	Exercise

Day 4: Mechanical Inspection

09:00–10:08	Motors and bearings
10:08–11:00	Steam traps
11:00–11:30	**Coffee break**
11:30–11:45	Steam traps (continued)
11:45–12:53	Refractory
12:53–14:00	Case study

Day 5: Interpretation and Reporting

09:00–10:08	Severity criteria
10:08–11:00	Reports
11:00–11:30	**Coffee break**
11:30–11:45	Reports (continued)
11:45–12:53	Programme
12:53–14:00	Action plan

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the sessions. They are indicative only and do not constitute a binding commitment.



Course content

Dates, venues and fees

Current published course plans. Fees are per participant in EUR, excluding unconfirmed taxes.

Venue	Start date	End date	Fee (EUR)
Vienna Confirmed dates	9 Nov 2026	13 Nov 2026	**€5,880.-**
Online Confirmed dates	9 Nov 2026	13 Nov 2026	**€1,250.-**
London Confirmed dates	30 Nov 2026	4 Dec 2026	**€4,900.-**
Online Confirmed dates	30 Nov 2026	4 Dec 2026	**€1,250.-**
Cape Town Confirmed dates	4 Jan 2027	8 Jan 2027	**€3,780.-**
Online Confirmed dates	4 Jan 2027	8 Jan 2027	**€1,250.-**
Paris Confirmed dates	25 Jan 2027	29 Jan 2027	**€5,720.-**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**€1,250.-**
Amsterdam Confirmed dates	8 Feb 2027	12 Feb 2027	**€5,080.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	8 Feb 2027	12 Feb 2027	**€1,250.–**
Frankfurt Confirmed dates	1 Mar 2027	5 Mar 2027	**€5,300.–**
Online Confirmed dates	1 Mar 2027	5 Mar 2027	**€1,250.–**
Rome Confirmed dates	22 Mar 2027	26 Mar 2027	**€4,900.–**
Online Confirmed dates	22 Mar 2027	26 Mar 2027	**€1,250.–**
Barcelona Confirmed dates	12 Apr 2027	16 Apr 2027	**€5,680.–**
Online Confirmed dates	12 Apr 2027	16 Apr 2027	**€1,250.–**
Vienna Confirmed dates	3 May 2027	7 May 2027	**€5,880.–**
Online Confirmed dates	3 May 2027	7 May 2027	**€1,250.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
London Confirmed dates	17 May 2027	21 May 2027	**€4,900.-**
Online Confirmed dates	17 May 2027	21 May 2027	**€1,250.-**
Barcelona Confirmed dates	7 Jun 2027	11 Jun 2027	**€5,680.-**
Online Confirmed dates	7 Jun 2027	11 Jun 2027	**€1,250.-**
Rome Confirmed dates	28 Jun 2027	2 Jul 2027	**€4,900.-**
Online Confirmed dates	28 Jun 2027	2 Jul 2027	**€1,250.-**
Cape Town Confirmed dates	19 Jul 2027	23 Jul 2027	**€3,780.-**
Online Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,250.-**
Dubai Confirmed dates	9 Aug 2027	13 Aug 2027	**€6,300.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	9 Aug 2027	13 Aug 2027	**€1,250.-**
Istanbul Confirmed dates	23 Aug 2027	27 Aug 2027	**€5,300.-**
Online Confirmed dates	23 Aug 2027	27 Aug 2027	**€1,250.-**
Rome Confirmed dates	13 Sept 2027	17 Sept 2027	**€4,900.-**
Online Confirmed dates	13 Sept 2027	17 Sept 2027	**€1,250.-**
Dubai Confirmed dates	4 Oct 2027	8 Oct 2027	**€6,300.-**
Online Confirmed dates	4 Oct 2027	8 Oct 2027	**€1,250.-**
Kuala Lumpur Confirmed dates	25 Oct 2027	29 Oct 2027	**€2,900.-**
Online Confirmed dates	25 Oct 2027	29 Oct 2027	**€1,250.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
Dubai Confirmed dates	15 Nov 2027	19 Nov 2027	**€6,300.-**
Online Confirmed dates	15 Nov 2027	19 Nov 2027	**€1,250.-**
Cape Town Confirmed dates	29 Nov 2027	3 Dec 2027	**€3,780.-**
Online Confirmed dates	29 Nov 2027	3 Dec 2027	**€1,250.-**

Plan your next step

Dates, availability, exact venue, taxes, inclusions and payment terms require written confirmation. This brochure is not a quotation, registration, booking confirmation or visa invitation. Participants receive a Smart Horizon certificate of attendance; programmes are not externally accredited and do not award a professional qualification or designation. Confirm arrangements before booking travel.

For group or in-house training, contact our learning team to discuss your objectives and delivery arrangements.

Contact Smart Horizon

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View the latest course details online