

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

Standby Power Systems and UPS Maintenance

5 days | Classroom training | English

SMART HORIZON

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Course content

Why attend

Hospitals, data centres and critical facilities depend on standby generators and uninterruptible power supplies. This course covers standby power design concepts, generator sets, automatic transfer switches, UPS types and batteries, testing regimes, maintenance, fuel management and preventing failures when power is needed most.

Backup power that fails during an outage is worse than none. You will learn to keep standby systems ready and reliable.

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

System walkthroughs, testing procedure exercises, case studies of failures and maintenance planning.

Course objectives

By the end of this course, participants will be able to:
• Explain standby power system configurations
• Maintain generator sets
• Maintain automatic transfer switches
• Understand UPS types and battery care
• Plan load bank and transfer testing
• Manage fuel and readiness

Target audience

This course is suitable for:
• Electrical engineers and technicians
• Facility managers
• Data centre engineers
• Hospital engineering staff
• Maintenance supervisors



Course content

Target competencies

Participants will develop competencies in:

- System understanding
- Generator maintenance
- UPS and battery care
- Testing
- Readiness management

Course outline

Day 1: Standby Power

09:00–10:08	Critical loads
10:08–11:00	System configurations
11:00–11:30	**Coffee break**
11:30–11:45	System configurations (continued)
11:45–12:53	Standards
12:53–14:00	Exercise

Day 2: Generators

09:00–10:08	Engine and alternator
10:08–11:00	Controls
11:00–11:30	**Coffee break**
11:30–11:45	Controls (continued)
11:45–12:53	Maintenance tasks
12:53–14:00	Workshop

Day 3: Transfer Switches

09:00–10:08	ATS operation
10:08–11:00	Maintenance
11:00–11:30	**Coffee break**



Course content

11:30–11:45	Maintenance (continued)
11:45–12:53	Testing
12:53–14:00	Exercise

Day 4: UPS and Batteries

09:00–10:08	UPS types
10:08–11:00	Battery maintenance
11:00–11:30	**Coffee break**
11:30–11:45	Battery maintenance (continued)
11:45–12:53	Monitoring
12:53–14:00	Case study

Day 5: Testing and Readiness

09:00–10:08	Load bank tests
10:08–11:00	Fuel management
11:00–11:30	**Coffee break**
11:30–11:45	Fuel management (continued)
11:45–12:53	Readiness plans
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 GBP, excluding unconfirmed taxes.

Venue	Start date	End date	Fee (GBP)
Vienna Confirmed dates	23 Nov 2026	27 Nov 2026	**£5,880.–**
Online Confirmed dates	23 Nov 2026	27 Nov 2026	**£1,250.–**
Cape Town Confirmed dates	14 Dec 2026	18 Dec 2026	**£3,780.–**
Online Confirmed dates	14 Dec 2026	18 Dec 2026	**£1,250.–**
Kuala Lumpur Confirmed dates	11 Jan 2027	15 Jan 2027	**£2,900.–**
Online Confirmed dates	11 Jan 2027	15 Jan 2027	**£1,250.–**
Dubai Confirmed dates	1 Feb 2027	5 Feb 2027	**£6,300.–**
Online Confirmed dates	1 Feb 2027	5 Feb 2027	**£1,250.–**
Cape Town Confirmed dates	22 Feb 2027	26 Feb 2027	**£3,780.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	22 Feb 2027	26 Feb 2027	**£1,250.–**
Rome Confirmed dates	15 Mar 2027	19 Mar 2027	**£4,900.–**
Online Confirmed dates	15 Mar 2027	19 Mar 2027	**£1,250.–**
London Confirmed dates	5 Apr 2027	9 Apr 2027	**£4,900.–**
Online Confirmed dates	5 Apr 2027	9 Apr 2027	**£1,250.–**
Dubai Confirmed dates	19 Apr 2027	23 Apr 2027	**£6,300.–**
Online Confirmed dates	19 Apr 2027	23 Apr 2027	**£1,250.–**
London Confirmed dates	10 May 2027	14 May 2027	**£4,900.–**
Online Confirmed dates	10 May 2027	14 May 2027	**£1,250.–**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (GBP)
Istanbul Confirmed dates	31 May 2027	4 Jun 2027	**£5,300.-**
Online Confirmed dates	31 May 2027	4 Jun 2027	**£1,250.-**
Barcelona Confirmed dates	21 Jun 2027	25 Jun 2027	**£5,680.-**
Online Confirmed dates	21 Jun 2027	25 Jun 2027	**£1,250.-**
Dubai Confirmed dates	12 Jul 2027	16 Jul 2027	**£6,300.-**
Online Confirmed dates	12 Jul 2027	16 Jul 2027	**£1,250.-**
Rome Confirmed dates	26 Jul 2027	30 Jul 2027	**£4,900.-**
Online Confirmed dates	26 Jul 2027	30 Jul 2027	**£1,250.-**
Barcelona Confirmed dates	16 Aug 2027	20 Aug 2027	**£5,680.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	16 Aug 2027	20 Aug 2027	**£1,250.-**
Vienna Confirmed dates	6 Sept 2027	10 Sept 2027	**£5,880.-**
Online Confirmed dates	6 Sept 2027	10 Sept 2027	**£1,250.-**
Cape Town Confirmed dates	27 Sept 2027	1 Oct 2027	**£3,780.-**
Online Confirmed dates	27 Sept 2027	1 Oct 2027	**£1,250.-**
Amsterdam Confirmed dates	18 Oct 2027	22 Oct 2027	**£5,080.-**
Online Confirmed dates	18 Oct 2027	22 Oct 2027	**£1,250.-**
Paris Confirmed dates	1 Nov 2027	5 Nov 2027	**£5,720.-**
Online Confirmed dates	1 Nov 2027	5 Nov 2027	**£1,250.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (GBP)
Frankfurt Confirmed dates	22 Nov 2027	26 Nov 2027	**£5,300.-**
Online Confirmed dates	22 Nov 2027	26 Nov 2027	**£1,250.-**
Rome Confirmed dates	13 Dec 2027	17 Dec 2027	**£4,900.-**
Online Confirmed dates	13 Dec 2027	17 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 UK 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