

9th International Congress on Thermal Sciences & Topical School

April 01 - 03, 2026

AMT'2026
MARRAKECH | MOROCCO

Thermal Sciences and Digitalization
Towards Intelligent and Sustainable Systems



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April
2026

Topical School

of the 9th International Congress on Thermal Sciences - AMT'2026

« Advanced Energy Strategies for a Sustainable Future »

As part of the 9th International Congress on Thermal Sciences (AMT'2026), the Topical School "Advanced Energy Strategies for a Sustainable Future" will be held in parallel with the main event. This training offers graduate students, engineers, and young researchers an opportunity to deepen their expertise in energy efficiency and renewable energy.

Focusing on two core themes — Energy Audit for High-Performance Systems and Project Management and Implementation of Photovoltaic Energy Solutions— the school delivers intensive courses combining theory, practical case studies, and software simulations (e.g., Pvsyst).

Led by recognized experts, it offers a multidisciplinary approach and networking opportunities with professionals attending AMT'2026. It is open to Master's and PhD students, junior engineers, postdocs, and early-career professionals in energy, thermal sciences, and environmental engineering.

Don't miss this chance to broaden your expertise, interact with leading experts, and contribute to a sustainable energy future.

Training Program 1

Photovoltaic Energy Projects
Design and Management

Trainer: Prof. Fatiha Berroug & Dr. Yassir Bellaziz

Module 1: Fundamentals of Photovoltaic Energy

- ◆ Components and Operation of PV Systems: Photovoltaic cells – types, operating principles, electrical characteristics.
- ◆ PV Modules: Cell assembly, characteristics, and technologies.
- ◆ Applications of PV Systems: Different types of photovoltaic systems – stand-alone, grid-connected, and solar water pumping.

Module 2: Design and Sizing of Photovoltaic Systems

- ◆ Solar irradiation calculations, shading analysis.
- ◆ Optimal panel orientation.
- ◆ Panel tilt.
- ◆ Spacing between panels.

Module 3: Simulation Tools for PV Systems

- ◆ Case study 1: Sizing a grid-connected system.
- ◆ Case study 2: Sizing standalone PV system.
- ◆ Case study 3: Sizing of solar pumping system.

Training Program 2

Energy Audit –
From Theory to Practice

Trainer: Prof. Abderrahim Bazgaou & Prof. Younes Bahammou

Module 1: Introduction to Energy Auditing

- ◆ Definitions, scope and objectives.
- ◆ Energy efficiency: key concepts and impacts.
- ◆ Practical introduction and examples.

Module 2: Energy Audit Frameworks and Standards

- ◆ Types of energy audits (ASHRAE Levels I, II, III).
- ◆ Key standards: ISO 50001 and ISO 50002.
- ◆ Energy management systems and regulatory context.

Module 3: Audit Methodology

- ◆ Step-by-step process: Pre-audit, On-site, Post-audit.
- ◆ On-site inspection and case study.
- ◆ Energy measurements and data collection.
- ◆ Data processing, analysis and monitoring tools.
- ◆ National and international audit programs.

Module 4: Auditor's Role and Recommendations

- ◆ Ethical principles and good practices.
- ◆ Classification of energy-saving actions.
- ◆ ROI analysis, feasibility and financial justification.
- ◆ Developing recommendations and stakeholder discussion.
- ◆ Integration of ISO guidelines.

Module 5: Practical Case Study

- ◆ Initial situation analysis and data review.
- ◆ Application of audit methods and software tools.
- ◆ Presentation of results and final discussion.
- ◆ Recommendations, ROI and professional audit report preparation.

We warmly invite participants to join this unique training and be part of the dynamic environment of AMT'2026.

The Topical School promotes collaboration, skill development, and knowledge exchange among future leaders in sustainable energy. All attendees will receive a certificate of participation.

CONTACT

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