

7<sup>th</sup> AIMSEA School for PhD students on

## FLUID MACHINES AND ENERGY SYSTEMS

March 30<sup>th</sup> – April 2<sup>nd</sup>, 2026

University of Pisa

“Le Benedettine” Conf. Center - Piazza S. Paolo a Ripa D'Arno, 16, Pisa

The 7<sup>th</sup> Winter School, organized by AIMSEA (Italian Association of Fluid Machines and Energy Systems), will be held in Pisa, Italy, from **March 30<sup>st</sup> to April 2<sup>nd</sup>**. This event is intended for PhD students working on fluid machines and energy systems. The main subject of the school will be **Fluid Machines, Energy Systems, and Sustainable Mobility in the Green Energy Transition**. The approach to energy conversion and utilization is evolving towards a new paradigm. However, this transition comes with various technical and economic challenges that need thorough investigation. The school will provide an opportunity to discuss these topics, gain insights into the latest frontiers of engineering research, and foster collaboration among PhD students. The program will include lectures by distinguished speakers from academia and industry. Workgroups and social events will be organized to enhance participant interaction and share the best practices.

### Additional information, important dates, and registration fee

- Applications must be submitted [here](#) before **February 28<sup>th</sup>, 2026**. Required documents (in pdf form): identity document (passport in case of a foreign student), signed enrolment form, curriculum vitae, certification of PhD student status.
- The application will be revised by a Scientific Committee. If approved, the payment of a fee of € 250,00 is requested. The fee includes attendance, 1 welcome reception, 1 social dinner, 4 lunches and coffee breaks
- Refund of the registration fee will be possible only before March 16<sup>th</sup>, 2026 (included)
- Workgroup activities during the school are mandatory for earning ECTS credits
- By attending the school and passing the final evaluation, students will earn 3 ECTS credits from the University of Pisa
- **On April 3<sup>rd</sup>, a visit to the SestaLAB facility will be organized ([link](#)). SestaLAB is a leading laboratory for testing gas turbine combustion chambers under real operating conditions. Participation is optional, free of charge, and not required for the ECTS award.**

### For further information

- Prof. Lorenzo Ferrari, School Coordinator:  
[lorenzo.ferrari@unipi.it](mailto:lorenzo.ferrari@unipi.it)
- Summer/Winter School Administrative Office:  
[support.summerschool@unipi.it](mailto:support.summerschool@unipi.it)

## Preliminary program

- **Prof. D. Chiamonti** Polytechnic University of Turin  
*Biofuel policies and scenarios: where are we going?*
- **Prof. S. Ubertini** Tuscia University  
*Ongoing developments in nuclear energy generation: fluid machinery and power conversion*
- **Prof. M. Ceraolo** University of Pisa  
*Electric vehicles and energy transition*
- **Dr. R. Christodoulaki** National Technical University of Athens  
*Energy efficiency and renewables in buildings — Designing for a fragile world*
- **Prof. A. Ficarella** University of Salento  
*New concepts for aircraft propulsion*
- **Prof. W. De Paepe** University of Mons  
*Alternative MGT cycles – cycle humidification for improved efficiency and flexibility*
- **Prof. V. Mulone** University of Rome Tor Vergata  
*Key technologies for decarbonization via biomass and hydrogen*
- **Prof. C. Markides** Imperial College London  
*Fundamentals of thermal-fluid processes in positive-displacement compression and expansion for energy conversion and storage applications*
- **Prof. M. Milani** University of Modena and Reggio Emilia  
*Design of integrated fluid power systems for motion control*
- **Prof. A. Algieri** University of Calabria  
*Hybrid poly-generation energy systems: optimal design, synthesis, and operation*
- **Prof. F. Montomoli** Sant’Anna School of Advanced Studies  
*Towards net zero in turbomachinery: digital design, machine learning and uncertainty quantification*
- **Dr. L. Arcioni** TREE s.r.l.  
*Introduction to the EU emissions trading system (EU ETS): historical overview and current structure*
- **Dr. C. Saletti** University of Parma  
*Optimal control of smart energy systems: methods and applications*

	March 30th	March 31st	April 1st	April 2nd	April 3rd
09:30 - 11:00	Opening ceremony	Dr. R. Christodoulaki	Prof. C. Markides	Dr. L. Arcioni	Visit to SestaLAB
11:00 - 12:30	Prof. D. Chiamonti	Prof. A. Ficarella	Prof. M. Milani	Dr. C. Saletti	
12:30 - 14:00	Lunch	Lunch	Lunch	Lunch	
14:00 - 15:30	Prof. S. Ubertini	Prof. W. De Paepe	Prof. A. Algieri	Workgroup Activity	
15:30 - 17:00	Prof. M. Ceraolo	Prof. V. Mulone	Prof. F. Montomoli		
17:00 - 19:00	Welcome reception	Coffee break	Coffee break	Closing ceremony	
		Workgroup activity	Workgroup activity		

Social dinner