CURRICULUM VITAE

Massimo SANTARELLI

Massimo Gian Luca SANTARELLI, born in Aosta (Italy) on 24.07.1968
Mechanical Engineer. Ph.D. in Thermodynamics and Heat Transfer
Full Professor in Thermodynamics and Heat Transfer, Department of Energy, Politecnico di Torino
Affiliated Professor in KTH (Stockholm, Sweden).
Affiliated Professor in UIC (Chicago, IL, US).

Author of around 230 papers in international journals and conferences.
The main research activity is linked to the topic of electrochemical systems applied to energy (fuel cells, electrolysers), energy storage (electrochemical technologies, chemical processes like power-to-X processes), H2 global management, CO2 global management (carbon capture, carbon reutilization) and their integration with renewable sources:

- polygeneration systems: experimental, modelling, demo
- electrochemical systems (fuel cells, electrolyzers, closed batteries): experimental and modelling
- thermochemical systems: methanation, power-to-gas processes, green fuels production: experimental and modelling
- CO2 technologies: CO2 recovery (membrane, absorption processes) and CO2 reutilization (production of synthetic fuels, production of chemicals, carbon cure of cement)
- experimental activity and modelling on SOFC generator and Balance of Plant;
- experimental activity and modelling on SOEC electrolysers;
- experimental activity and modelling on PEMFC single cells and stacks;
- experimental activity and modelling of high pressure electrolysis fed by renewable sources;
- modelling, analysis and optimization of energy systems based on integration of RES and H2.

Coordinator of EU Project SOFCOM (FCH JU Call 2010), DEMOSOFC (FCH2 JU Call 2014), REMOTE (FCH2 JU Call 2017).
Partner in EU projects: Waste2Watts, COMSOS, TEACHY, ICO2CHEM, DB-SOFC, BRISK II, GRINHY, ENEFIELD, ENFICA-FC, SELECT-CD, Explore Energy, Virtual Hub, MARS-EV.
Coordinator of National projects: PRIN 2009.
Partner of National projects: FISR 2005, PRIN 2008, BioAlma
Coordinator of Regional projects: MULTISS, OZ-BOX, SOE/FC, BioSOFC
Partner of Regional projects: EOS and EBE, Micro CHP, Celco Yacht, PFHC, NanoSOFC, HySyPower, Mhyto, RES-COGEN, LAPIS, CARVOUR, Biogas4Energy
Coordinator of STEPS Laboratory (Synergies of Thermochemical and Electrochemical Power Systems) of Politecnico di Torino: SOFC and SOEC single cells and short stacks; high pressure PEM electrolysis; power-to-chemical section (synthetic fuels); chemical looping processes.
Scientific Coordinator of CO2 Circle Lab laboratory (Politecnico di Torino, Italian Institute of Technology).
Coordinator of the activities in the CLASS laboratory in Environment Park Torino.
Chair for Italy of ISO/TC 197 “Hydrogen Technologies”, member of IEC/TC 105 “Fuel Cells”
Member for Italy of IPHE.

Coordinator for POLITO of the EM MSc SELECT, and member of the Steering Committee.
Member of the Steering Committee of the EMJD SELECT+.
Teaching experience in the wide topic of Applied Thermodynamics (Thermodynamics and Heat Transfer, Second Course on Thermodynamics), and in the specific topic of Advanced Energy Systems (Polygeneration and Advanced Energy Systems).
At present, my courses are:
(a) Polygeneration and Advanced Energy Systems (POLITO, Torino, IT)
(b) Thermodynamics and Heat Transfer (POLITO, Torino, IT)
(c) Energy Systems Analysis in an Environomical Context (Fall and Spring courses) (KTHStockholm and UPC-Barcelona)
(d) Advanced Renewable Energy Systems (KTH-Stockholm and UPC-Barcelona)

WEB site: https://www.swas.polito.it/rubrica/scheda_pers.asp?matricola=001872
http://www.energycenter.polito.it/chi_siamo/advisory_board