

Modeling and Simulation Approaches for Materials and Energy (6th Edition)

June 7th-8th, 2021, Metz-France

ABOUT

Modeling and Simulation Approaches are vital topics, given current and future challenges of energy transition and sustainable development, as well. Subsequently, our sixth Topical School Edition, namely "Modeling and Simulation Approaches for Materials and Energy" will focus on the relationship between energies' optimization & simulation topics. Such a specialized school will take place on June 7th-8th, 2021, in Metz city, France, and will present the latest scientific advances into the field.

The Topical School will include various lectures and seminars. These lectures will cover fundamental and applied aspects related to the transfer-phenomena modeling within complex media. Our lecturers are international experts in various areas, such numerical simulation approaches, renewable energy, building energy performance and durability of structures, to name but a few.

Our aim is to be an inter-disciplinary interface into material and energy fields, as well as the environmental one, by putting the emphasis on the renewable resources, materials for renewable energies, energy storage and optimization, bio-sourced materials for building, as well as social issues about energy and environment with contributions of international highlighting experts.

The Topical School is intended in order of priority for PhD students, Masters, Engineers in final year and researchers as well.

ICOME's Chairs

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OUTLINE PROGRAM (Provisional)

Opening (15min)	
ICOME's Chairs Doctoral / School Directors / International Committee Team	
(30min)	About: University Carrier - PHD - Engineering -Energy - Society Prof. M. EL GANAOU, Prof. R. BENNACER & Prof. M. PETRISSANS (Lorraine & Paris-Saclay University, France.)
Topic 1: HAL Documentation: Presentation & Directive	
(35 min)	Mme. Celia LENTRETIEN (<i>Lorraine University, France</i>)
Topic 02: Materials for Energy / Thermal Spraying / Photonics	
(50min)	Dr. Hélène AGEORGES / Prof. Jean-Michel NUNZI (<i>Limoges University, France Queen's University, Canada</i>)
Topic 03: Alternative Energy for Future	
(50min)	Dr. Angel SCIPIONI / Dr. Damien GUILBERT / Prof. G. PLUVINAGE (<i>Lorraine University, France</i>)
Topic 04: Photovoltaic Solar Cells & Engineering Systems	
(50min)	Dr. Aumeur EL AMRANI / Dr. Mohamed AMARA (<i>Moulay-Ismaïl University, Morocco Lorraine University, France</i>)
LUNCH BREAK (40min free time)	
Topic 05: Applied Research	
(50min)	Dr. Harry RAMENAH / Dr. Marie-Christine LAGEL (<i>Lorraine University, France</i>)
Topic 06: Process Engineering / Modeling Science	
(1h00)	Dr. Anélie PETRISSANS / Dr. Karim RAGUI / Dr. Alain CARMASOL (<i>Lorraine University, France USTHB University, Algeria</i>)
Topic 07: Management Control / Thermo-Economic	
(1h00)	Dr. Denis CHOFFEL / Dr. Abdelhamid KHEIRI / Dr. Abdelhafid LOUGHLIMI (<i>Lorraine University, France</i>)
Closing (5min)	

**Conference Evening School 7, 8 June
Numerical Tools**

(2h00)

Dr. F. MNASRI / Dr. S. MORSLI / Dr. L. OUHSAINE / Dr. K. RAGUI

*A Special Int. Certificate will be delivered to the participants of our Topical School.

Location



Research Unit of Mathematics, Computer Science, and Mechanics (UFR-MIM).
03 rue Augustin Fresnel, 57070, Technopole Metz, France.

Topical School Team



Prof. M. EL GANAOU

Full Professor at Lorraine University. Researcher in the Jacques Villermaux Federation for Mechanics, Energy & Processes. He is heading the energy research at the Henri Poincaré Institute of Technology-Longwy with strong international interaction, noticeably in the Euro-Mediterranean context. Managed the PAI Australia, Canada, Maghreb & China.



Prof. R. BENNACER

Exceptional National Class Professor in the Prestigious School Ecole Normale Supérieure (Paris-Saclay). Adjunct Professor at Tianjin University of Commerce (China) & UMB University. He is heading the Transfer and Environmental Research Unit (CNRS LMT-Lab) with strong international interaction, noticeably in the Euro-Mediterranean context.



Prof. M. PETRISSANS

Exceptional National Class Professor at Lorraine University. Served as Vice-President Research at Nancy 2 Univ., then as Research Officer at Lorraine University. He is actually in charge of the "Lorraine Coordination & Scientific Counseling Committee" and Director of the Technological Institute of Epinal. He is an international expert of the biomass and wood thermal behavior.

ICOME 21 Topical School Team / Metz-France



Dr. Angel SCIPIONI

Member of Nancy Electrotechnical Research Group, GREEN. Energy Optimization & Control.



Dr. Karim RAGUI

Computational Fluid Mechanics, Complex flows, Heat - Mass Transfers & Energy Optimization.



Dr. Damien GUILBERT

Member of GREEN (Nancy). Associate Editor of the European Journal of Electrical Engineering.



Dr. Hélène AGEORGES

Thermal Spraying, Head of the Master Program Energy Efficiency & Sustainable Development.



Dr. Abdelhamid KHEIRI

Thermo-Economic & Exergy Science, Thermodynamic, Thermal & Exergy Efficiencies.



Pr. Jean M. NUNZI

Organic & Nano-Photonics, Instrumentation, Processing and Physics of Nano-Materials.



Dr. Faiza MNASRI

Materials, Structures & Characterization of Hygrothermal Properties of Stones.



Dr. Lahoucine OUHSAINE

Reduced-Order Models for Coupled Energy Systems, Control & Optimization in Energy-Mix.



Dr. Souad MORSLI

Computational Fluid Dynamics, Entropy Generation, Analysis & Indoor Air Quality.



Dr. Aumeur EL-AMRANI

Photovoltaic Solar Cells, Thermoelectricity & Approaches in Modeling Transistors.



Dr. Marie C. LAGEL

Applied Research, Pole Fibers-Energivie, Natural Product & Green Chemistry,



Dr. Anélie PETRISSANS

Process Engineering, Kinetic, Process Modeling and Optimization.



Dr. Harry RAMENAH

Johansen VECM Cointegration approach for an accurate test to forecast photovoltaic power output.