

The 1st National Conference on Thermal Engineering Renewable and Conventional Processes NCTE'22

University of Batna 2, October 25-26, 2022

<http://conference.univ-batna2.dz/ncte22>

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In the last years, the Research Laboratory on Energy and Industrial Systems (LESEI) developed applied research with the city of Batna Neighborhood industries such as the cement plant of Ain Touta (SCIMAT). Several applied research agreements have been co-signed trying to provide solutions to specific process problems, and some of which were honored. The logical consequence of these events would be the generalization of these procedures to other partners. For this purpose, LESEI, in collaboration with the Department of Mechanical Engineering, University Batna 2, is organizing the **first National Conference on Thermal Engineering, Renewable and Conventional Processes (NCTE'22)**. This multidisciplinary event should serve as a platform for the development of relations with the industrial sector, address some concerns of the socio-economic partners and strengthen the applied research in general. The second objective of this event concerns the environmental aspect and sustainable development. Indeed, it is legitimate to think that an "energy efficiency policy " based on a hybridization between renewable energies and clean and efficient industries could eventually lead to sustainable energy security. Finally, the conference will serve as a forum for sharing the latest research in the field of thermal engineering and renewable energy, and will be an opportunity to exchange ideas, solutions to specific problems or issues and innovative results.

TOPICS

A wide range of topics related to Thermal Engineering fields will be covered, including but not limited to:

▪ Fluid and Thermal engineering

Heat and mass transfer, Natural, forced, and mixed convection, Fluid mechanics and CFD, Heating/Cooling systems, Energy/Exergy analysis, Combustion, Two-phase flows, Boiling, Condensation, Energy conversion and clean energy technology, Heat transfer enhancement techniques, Multiphase phenomena with phase change Applied thermodynamics, Granular flow, Measurement techniques and thermal properties, Refrigeration, air conditioning systems, and refrigerants, and Turbomachinery

▪ Renewable energies

Solar concentrating systems, Energy efficiency, Analysis and modeling of renewable processes Hydrogen energy , Energy storage engineering and innovative materials and processes, Geothermal energy, Hydraulic energy and

power generation systems, Photovoltaic thermal hybrid solar collector, Point focus and linear solar receivers: heat transfer and innovative materials, Solar power plants and power generation, Solar processes and thermal desalination, Bio-mass systems , Bio-diesel systems, and Wind energy

▪ Conventional industrial processes

Conventional energy systems and recovery, Analysis and modeling of transformation processes, Cement manufacturing and transformation process, Cogeneration and tri-generation, Conventional power plants and power generation, The energy efficiency of industrial processes Environment and air treatment, Heat Integration and energy saving, Industrial and environmental fluid mechanics, and Industry problems: CO2 capture

▪ Other aspects of the mechanics

Composite and Smart Materials, Maintenance and reliability of equipment, Material Issues, Ceramics, Low Thermal Conductivity, Material Science and Processing Mechanical Engineering and simulation, Mechanics of heterogeneous materials, and Thermal behavior of Manufacturing systems and Materials processing

DEADLINES

June 10, 2022,	Full paper submission.
July 05, 2022,	Notification of acceptance.
September 05, 2022,	Final version accepted paper submission.
September 30, 2022,	Late registration deadline.

ORGANISATION COMMITTEE

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PUBLICATION

Conference papers will be published in a special issue of the journal 'Recueil de Mécanique', EISSN: 2507-7619 (ASJP Impact Factor: 0.1132).