



13th International Seminar on Thermodynamic Engineering of Fluids (13ISTEF)

July 18th – 19th, 2024. Tarragona (Spain)

Presentation

The International Seminar on Thermodynamic Engineering of Fluids is an annual academic-scientific meeting that brings together a group of international specialists who deal with various topics of interest in Engineering Thermodynamics. In addition to the seminar program, researchers of the PhD Program on Thermodynamic Engineering of Fluids will present and discuss their research works.

Preliminary program

Thursday 18th July

9:00	Welcome to the participants
	Session 1. Doctoral Programme of Thermodynamic Engineering of Fluids
9:05	Overview and annual summary of activities of the Interuniversity doctoral Programme of Thermodynamic Engineering of Fluids. Coordinators at Valladolid University, Santiago University, Burgos University and Rovira i Virgili University
9:15	Novedades en los programas de doctorado españoles. Doctoral School of Rovira i Virgili University
	Session 2. Use of Hydrogen in Energy Applications
9:30	Use of Metal Hydrides for heating, cooling and energy storage: - Interest in metal hydrides for the sorption of hydrogen, <i>Daniel Salavera (URV, Spain)</i> - Polygeneration systems based on metal hydrides, <i>Joan Carles Bruno (URV, Spain)</i>
10:00	Fully Integrated Hydrogen Test-Bench for the Study of Coupled Metal Hydride-based Thermal Energy Storage Systems. <i>Katamala Malleswararao (German Aerospace Center DLR, Germany)</i>
10:30	Coffee break
11:00	Enhancing Hydrogen Sorption Detection in Porous Materials: Apparatus Design and Key Variables. <i>Abdurahman H. Assagaf (URV, Spain)</i>
11:20	Density and Isobaric Heat Capacity of CO ₂ Loaded Aqueous Solutions of Amines. <i>Yisel Pérez Milian (UVa, Spain)</i>
11:40	Comparative assessment of hydrogen storage technologies. <i>Tegen Dagnew Tessema (URV, Spain)</i>
12:00	CO ₂ Heat Pumps for Domestic Hot Water Production. <i>Mohammed Reda Haddouche (Universidad de Lleida, Spain)</i>
12:20	Effect of ionic liquid as an additive in a water/LiBr horizontal TUBE falling film absorber at air-cooling thermal conditions. <i>Hussain A. Tariq (Universitat Rovira I Virgili, Spain)</i>
	Session 3. Energy Transition
12:45	Understanding the Global Energy Transition and its Drivers. <i>Francesc Josep Reventós (Universitat Politècnica de Catalunya, Spain)</i>
13:30	Lunch break
15:00	The Green Hydrogen Economy. <i>Stefan Remke (PNE AG, Germany)</i>
15:45	High Pressure Technology for Energy Transition: H ₂ storage and CO ₂ transformation. <i>Ángel Martín (UVa, Spain)</i>
16:30	Transformación Industrial en Repsol. <i>Montserrat Vallverdú (Repsol, Tarragona, Spain)</i>
17:15	Producción de hidrógeno a partir de gasificación catalítica de residuos orgánicos. <i>Caterine Donoso (URV, Spain)</i>
17:30	Closing

Friday 19th July

	Session 4. Doctoral Programme of Thermodynamic Engineering of Fluids
9:00	Optimizing Solar District Energy Systems with a Seasonal Storage Using Advanced Data-driven Techniques. <i>Ruslan Kotegov (URV, Spain)</i>
9:20	Thermophysical Characterization of Fluids of Interest for the Energy Transition. <i>Elizabeth González Cortés (UVa, Spain)</i>
9:40	Electrical conductivity of low viscosity oils containing nanomaterials or alcohols. <i>Óscar Giner-Rajala (USC, Spain)</i>
10:00	Progress in Deep Learning techniques for the modelling of electric and hybrid vehicles. <i>Pedro Maroto (URV, Spain)</i>
10:20	Review and assessment of photovoltaic losses in selected case studies. <i>Teodor Pulido (URV, Spain)</i>
11:00	Closing

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Publications

A Book of Abstracts will be edited and distributed among the participants

Location and modality

Sala de Graus, Campus Sescelades, Avda. Països Catalans, 26, 43007, Tarragona
The seminar can be followed in person or virtually by videoconference (MS Teams)

