Call for papers

Fluid-structure interaction (FSI) gives rise to nonlinear multiphysics phenomena that have multiple applications in a wide range of scientific and engineering fields. As a result, various analytical, numerical, and experimental methods have been developed over the past decades worldwide to predict, analyze, and quantify the FSI effects. This international conference intends to bring together some of academia and industry professionals in the world to discuss and share their most recent research and findings in the field of Engineering Fluid-Structure Interaction. It also aims to highlight research trends and developments in the coming decades. Extended abstract submissions will be peer-reviewed and evaluated based on originality, technical content, research novelty, and relevance to the conference themes. Selected presentations during the conference will be proposed for paper publication in a partner journal.

Key dates

Open abstract submission: February 1st 2023
Extended abstract submission deadline: May 31st 2023
Notification of acceptance: Jun 30th 2023
Early registration deadline*: September 10th 2023
*Registration fees increase by 25% after this date

Contact

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International Conference on Engineering Fluid Structure Interaction ICEFSI23

November 13th - 15th 2023
in Bejaia, Algeria

Organized by

جامعة بجاية
Tasdawit n'Bgayet
Université de Béjaïa

Research Laboratory of Applied Hydraulics and Environment LRHAE, Faculty of Technology, University of Bejaia, Algeria

UNIVERSITÉ CAEN NORMANDIE

Cherbourg University Laboratory of Applied Sciences LUSAC, University of Caen Normandie, France

SEGULA TECHNOLOGIES

Global engineering group, France

Bejaia city

Bejaia, Vgayet in Tamazight (Kabyle); Bougie in French, and Saldae during the Roman era, is a city of history, science and knowledge. Recognized in the Middle Ages as one of the most prosperous cities on the Mediterranean coast and capital of great Muslim dynasties. It was known in Europe thanks to the quality of its candles made of beeswax to which it gave its name. It also played an important role in the dissemination of "Arabic numerals" in the West of Europe. The capital of the Hammadid dynasty has always been illuminated and radiant. It was enlightened by giving her hospitality to many erudites and men of letters and sciences such as Ibn Batouta, Ibn Khaldoun, Fibonnacci and so many others. It was illuminating in its turn, by constituting itself as a pole of scientific influence for Europe and all the neighboring regions. Bejaia is a city that brings together the present and the past thanks to its ancient and medieval remains on one side, and its recent constructions on the other. Wonderful landscapes and many natural tourist sites welcome thousands of tourists every year.

Organizing committee

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Pr. SOULI, M., University of Lille, France

Topics

The ICEFSI23 covers all research and engineering application fields involving FSI. Potential topics include but are not limited to:

Topic 1: Computational methods and numerical modeling

- Analytical and mathematical modeling
- Numerical coupling methods and convergence criteria
- Uncertainty quantification and numerical instabilities
- Order reduction Models
- Physics-based machine learning

Topic 2: Experimental and measurements techniques

- Advanced methods and technics for FSI measurements
- Physical analysis of FSI
- Flow induced Vibration
- Fluidelastic instabilities
- FSI Control systems
- Instabilities of slender structures
- Inflatable structures

Topic 3: Aero elasticity

- Flexible structures flapping and floating
- Instabilities of slender structures
- Inflatable structures

Topic 4: Biomechanical Engineering

- Multiscale and multiphysics modelling
- Biofluids and hemodynamics Blood flows and cardiovascular system
- Medical devices and implants
- Biomimetics

Topic 5: Renewable energy

- Interaction between surface waves and immersed or floating bodies
- Energy efficiency optimization of wind and tidal turbines taking into account FSI
- Flexible or free-moving structures for renewable energy extraction

Topic 6: Civil, Hydraulic, Mechanical and Marine Engineering

- Hydraulic structures and hydrodynamic pressures
- Wind induced vibrations on structures
- Porous media and geotechnical structures
- Soil-pore fluid interaction
- Seismic Fluid-soil-structure interaction
- Other systems including FSI with high and non-linear deformations

Plenary conferences

- Pr. AIT ABDERRAHMANE Hamid, Masdar Institute of Science and Technology.
- Pr. ASTOLFI Jacques-André, Ecole Navale/Arts et Métiers
- Pr. DESTUYNDER Philippe, University of La Rochelle
- Pr. FARHAT Charbel, Stanford University
- Pr. GUILLOU Sylvain, University of Caen Normandy
- Pr. SOULI Mhamed, University of Lille

Accommodation

Researchers and academics: 250.00 € , Students: 200.00 €, Professionals: 300.00 €.

Researchers and academics from Algeria: 15 000.00 DZD, Students from Algeria: 7 500.00 DZD, Professionals from Algeria: 30 000.00 DZD

The fees cover conference attending, proceedings, conference diner, touristic tour, coffee breaks, lunches