

## Journal of Flow Visualization and Image Processing

### Announcement of a special issue on **Energy Storage and Conversion Systems**

Date of announcement: 15<sup>th</sup> March 2023

Articles will be shortlisted by 28<sup>th</sup> July 2023

Submission of full-length articles on the journal website by 31<sup>st</sup> August 2023

First round reviews to be completed by 31<sup>st</sup> October 2023

Final acceptance to be given before 30<sup>th</sup> November 2023

Paper length (recommended maximum): 5000-8000 words text; 8-12 pages

The *Journal of Flow Visualization and Image Processing* is a quarterly refereed research journal that publishes original papers to disseminate and exchange knowledge on the principles and applications of flow visualization techniques and related image processing algorithms. Flow visualization and quantification have emerged as powerful tools in velocity, pressure, temperature and species concentration measurements, combustion diagnostics, and process monitoring related to physical, biomedical, and other engineering sciences. Numerical simulation is a second source of data amenable to image analysis and interpretation. Many applications involve gas-liquid interfaces that move in time and over a solid surface. Locating such boundaries from high-speed image sequences is an important step that can provide considerable physical insight. Images acquired in an experiment or from simulation contain a wealth of data and on multiple scales. New developments such as tomographic reconstruction, digital correlation technique, and AI-based algorithms are quite appropriate for extracting flow visualization data and interpreting flow visualization data.

The subject domain of fluid flow and heat transfer offers tremendous opportunity for recording unexpected and interesting image sequences that improve interpretation and provide utility. With the development of high-speed optical imaging systems as well as efficient CFD simulation tools, it is now possible to record details of flow structures and their evolution in diverse contexts. New generation visualization algorithms vividly represent experimental as well as numerical data.

The special issue is intended to provide the readers with related developments in the emerging field of energy storage and conversion systems. It will assemble original research articles emerging from experimental and computational studies that imaginatively reveal details of fluid flow and thermal phenomena. Papers are invited in areas that consider prospects of novel energy storage technologies, sizing and management strategies, operation and monitoring of storage systems and review articles related to worldwide developments in the field.

#### Editors of the Special Issue

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7<sup>th</sup> April 2023