



## Computational Fluid Dynamics and Its Engineering Applications

Guest Editor:

**Dr. Jawed Mustafa**

Mechanical Engineering  
Department, College of  
Engineering, Najran University,  
P.O. Box 1988, Najran 61441,  
Saudi Arabia

Deadline for manuscript  
submissions:

**closed (30 April 2023)**

### Message from the Guest Editor

Today, computational fluid dynamics (CFD) is a crucial component of several basic research projects and business issues. The development of new numerical methods and improved computer systems has increased the significance of CFD. In this Special Issue, we hope to present recent advances in a variety of CFD-related fields, including fundamental numerical methods and real-world CFD applications in fields as diverse as renewable energy, heat and mass transfer, HVAC, biomechanics, the polymer industry, the aerospace, chemical, and automotive industries.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Computational fluid dynamics (CFD);
- High-performance computing (HPC);
- Finite difference methods (FDM);
- Finite volume methods (FVM);
- Computational and numerical methodology;
- CFD in heat and mass transfer;
- CFD in multiphase flows;
- CFD in renewable energy;
- Energy application;
- Two-phase flow.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)