

Special Issue

Applications of Computational Fluid Dynamics (CFD) in Practical Engineering

Message from the Guest Editors

This issue aims at providing comprehensive coverage of all aspects associated with computational fluid dynamics in practical engineering, which include simulation, coding, developing techniques, characterization, modeling, applications, etc.

Computational fluid dynamics (CFD) is a science that involves computer-based simulation and quantitative analysis of fluid flow phenomena based on conservation laws. Along with their assembly, the testing of machine parts through the use of computational fluid dynamics is essential in practical engineering. Techniques involved are the finite element method, finite volume method, spectral element method, AI techniques, and direct numerical simulation, which is used to ensure each piece of equipment is manufactured in the best of all conditions. TOPICS

- Application of CFDs in fields like cavitation, thermal analysis, Aerodynamics, etc.;
- Application in biomechanics, i.e., blood flow, biomechanical devices, etc.;
- Empirical modeling of physically important parameters;
- New developments in numerical techniques;
- Stability analysis of numerical schemes.

Guest Editors

Dr. Ahmad Zeeshan

Department of Mathematics and Statistics, International Islamic University, Islamabad, Pakistan

Dr. Salman Saleem

Department of Mathematics, King Khalid University, Abha 61413, Saudi Arabia

Deadline for manuscript submissions

closed (31 July 2023)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/159396

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

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.

Editor-in-Chief

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

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, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)