Special Issue

Innovations in Rotorcraft Flight Dynamics and Control

Message from the Guest Editors

Recent advances in rotary-wing flight dynamics and control, driven by new vehicle designs and computational methods, are enhancing efficiency, safety, and operational capabilities. Key innovations include the integration of Artificial Intelligence (AI) and advanced modeling techniques. Technological progress in flight control systems—such as fly-by-wire, fly-by-light, intelligent flight control, and adaptive control laws like higher harmonic and advanced feedback control—has improved responsiveness and reliability. Increased computational power enables detailed simulations using advanced wake, aerodynamic modeling, and multi-disciplinary analysis, facilitating novel rotorcraft designs for Urban Air Mobility (UAM) and eVTOLs. Physics-based simulations and system identification methods support advanced testing of complex configurations. The future focuses on integrating AI and machine learning for autonomy and safety, developing hybrid and electric propulsion for UAM, and refining active rotor and flow control technologies to boost performance. Manuscripts covering all aspects of rotorcraft flight dynamics and control are invited.

Guest Editors

Prof. Dr. Jonnalagadda V R Prasad

Prof. Dr. Ilkay Yavrucuk

Dr. Mahmoud A. Hayajnh

Deadline for manuscript submissions

30 June 2026

Aerospace

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.0

mdpi.com/si/253406

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

mdpi.com/journal/aerospace

Aerospace

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.0

mdpi.com/journal/aerospace

MDPI

About the Journal

Message from the Editor-in-Chief

You are welcome to contribute a research article or a comprehensive review for consideration and publication in *Aerospace* (ISSN 2226-4310), an on-line, open access journal.
Aerospace adheres to rigorous peer-review as well as editorial processes and publishes high quality manuscripts that address both the fundamentals and applications of aeronautics and astronautics. Our goal is to enable rapid dissemination of high impact works to the scientific community.

Editor-in-Chief

Prof. Dr. Konstantinos Kontis
School of Engineering, University of Glasgow, James Watt Building South, University Avenue, Glasgow G12 8QQ, Scotland, UK

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), Inspec, Ei Compendex, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Aerospace) / CiteScore - Q2 (Aerospace Engineering)