

## Special Issue

# Applications of Thrust Vectoring Technology to Drone Systems

### Message from the Guest Editor

Drones such as UAVs generally use thrust balance to control their attitude and move by exerting thrust in an arbitrary direction. On the other hand, drones that can move in any direction while maintaining their fuselage attitude have been reported using thrust deflection technologies such as tilt mechanisms, vector nozzles, and omni-positioned propellers. Thrust deflection technology enables stable flight under strong winds, stable approaches to objects during infrastructure inspections, and high-precision position-keeping control during sensing. It also enables high maneuverability, such as hovering while rolling. In addition, thrust deflection technology plays an important role in realizing VTOL-UAVs such as the Osprey tilt-rotor VTOL and tail-sitter. In this Special Issue, we invite papers related to UAVs that apply thrust deflection technology. UAVs with added thrust deflection technology require special considerations not only in terms of fabrication and control methods, but also in terms of interfaces for maneuvering. Papers on airframe structure and control theory, as well as the structure and mechanics of the control interface, are also welcome.

---

### Guest Editor

Dr. Masafumi Miwa

Graduate School of Technology, Industrial and Social Sciences,  
Tokushima University, Tokushima 770-8506, Japan

---

### Deadline for manuscript submissions

closed (31 May 2024)



## Aerospace

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.0



[mdpi.com/si/191710](https://mdpi.com/si/191710)

*Aerospace*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[aerospace@mdpi.com](mailto:aerospace@mdpi.com)

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





# Aerospace

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 4.0



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



## 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, 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)