

Special Issue

Greening Aircraft Manufacturing Through Industry 4.0 Technologies and Recyclable Composites

Message from the Guest Editors

The aviation sector aims to significantly reduce global emissions, necessitating a shift towards greener manufacturing processes. Industry 4.0 offers promising technologies that can enhance sustainability in aircraft production. This Special Issue will investigate how these technologies, combined with the use of recyclable composites, can minimize waste, improve energy efficiency, and promote eco-friendly materials in aircraft manufacturing. Additionally, the Issue will address challenges associated with the implementation of these technologies, such as cost, technical integration, and the need for industry-wide standards. Topics of interest include, but are not limited to, the following:

- Application of additive manufacturing in sustainable aircraft production.
- IoT and AI-driven optimization for energy-efficient manufacturing processes.
- Development and utilization of recyclable composites in aircraft structures.
- Case studies of Industry 4.0 technology implementations in the aviation sector.
- Economic and operational analysis of green manufacturing technologies.
- Solutions to challenges in adopting Industry 4.0 technologies in aerospace manufacturing.

Guest Editors

Dr. Athanasios Kotzakolios

Dr. Mauro Zarrelli

Prof. Dr. Michele Meo

Deadline for manuscript submissions

20 June 2025



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/221949

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

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





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



[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, CAPIus / SciFinder, and other databases.

Journal Rank:

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