Special Issue

Advances in Electric Propulsion Technology for Aerospace Engineering

Message from the Guest Editors

Rapid advancements in electric propulsion and hydrogen fuel cell technologies are driving the transition to sustainable, high-performance aerospace systems. These innovations offer significant potential to reduce emissions, improve efficiency, and enable new mission capabilities in both space and atmospheric flight. This Special Issue showcases progress and interdisciplinary research in electric propulsion for spacecraft and hydrogen fuel cell applications for aerial platforms, particularly small aircraft and emerging aviation technologies. Topics include ion and Hall-effect thrusters, pulsed plasma thrusters, electrospray propulsion, and architectures for satellites, CubeSats, and interplanetary missions; hydrogen-based fuel cells and hybrid-electric propulsion for UAVs and small aircraft; computational modeling and CFD; AI-driven design and optimization; and autonomous flight and navigation algorithms. Research on plasma–surface interactions, propulsion testing, thruster materials, power management, and mission integration strategies is also welcome, highlighting current achievements and future directions that bridge space and atmospheric applications.

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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.

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