

Special Issue

Emerging Trends in Air Traffic Flow and Airport Operations Control

Message from the Guest Editors

Global air transportation is undergoing a transformation driven by the need for more integrated and adaptive approaches to optimize airspace and airport operations. Advances in digitalization, automation, AI, and data analytics are reshaping traditional methods, fostering systems that are more resilient, adaptive, and environmentally conscious. This Special Issue focuses on the latest research and technological breakthroughs in air traffic flow and airport operations control. We invite contributions on emerging trends, such as flow-centric dynamic airspace configuration, collaborative air traffic flow management, integrated departure, arrival, and surface operations (IDASO), trajectory-based operations, and the integration of unmanned aerial systems (UAS) into conventional air traffic. We also seek studies on synchronizing airspace and airport resources using AI for predictive and adaptive control, with contributions from theoretical, numerical, experimental, and interdisciplinary approaches.

Guest Editors

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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.

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