Special Issue

Autonomous Formation Systems: Guidance, Dynamics and Control

Message from the Guest Editors

Autonomous formation systems have made several previously difficult missions possible, as well as enhanced the quality of many existing missions. A formation system comprising multiple members not only inherits the challenges encountered by a singlemember system, but there are also new concerns to address in order to achieve cooperation. Multiple spacecraft formations, for example, are engaged in the dynamical coupling of orbit and attitude throughout flight, as are large-scale systems with communication time delays, etc. This Special Issue aims to collect broad research findings in autonomous formation systems, including the topics of guidance, dynamics, control, planning, and decision making. We are especially interested in recent studies involving multi-body autonomous systems. We invite submissions of papers on all relevant topics, including in the fields of aerospace, robotics, and aircraft.

Guest Editors

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Dr. Ran Sun

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Deadline for manuscript submissions

closed (30 April 2025)



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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 multidimensional network.

Editor-in-Chief

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