Special Issue

Intelligent Autonomous Decision-Making and Cooperative Control Technology of High-Speed Vehicle Swarms

Message from the Guest Editors

Swarm intelligence technology is a new technology combining unmanned system technology, network information technology and artificial intelligence technology, and this has become a research hotspot. Due to the difference in flight dynamics characteristics, the strong uncertainty caused by the large airspace of the flight environment and the fast time-varying cluster topology caused by high dynamics, it is difficult for traditional UAV swarm technology to be directly applied to the cluster system of high-speed vehicles. Therefore, there is an urgent need to study new theories and methods for the cooperative operation of high-speed vehicle swarm systems.

- Swarm distributed situation awareness and cognitive technology;
- Swarm autonomous decision-making method based on decision rule base;
- Swarm collaborative planning technology in a complex environment;
- Swarm strike cooperative task planning technology under multiple constraints and strong coupling conditions;
- Verification system of key technologies of swarm intelligent planning and autonomous control.
- Other relevant theories, methods, technologies, systems and platforms.

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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.

Editor-in-Chief

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