大会特邀专题申请

专题名称:无人机集群自主控制

无人机集群已成为无人机系统发展的前沿方向。随着集群规模的不断扩大,控制节点数急剧增加,这对大规模无人机集群系统的控制提出了新的要求。本专题重点围绕无人机集群自主控制的相关理论、技术及应用,探讨以下研究方向:

- ◇ 无人机集群的建模仿真:
- ◇ 无人机集群的组网通信:
- ◇ 无人机集群的自主导航:
- ◇ 无人机集群的自主规划:
- ◇ 无人机集群的自主控制;

旨在通过对上述无人机集群自主协同控制问题的研究与讨论,汇聚本领域面向科技前沿的新理论与新方法,面向工程应用的新技术与新手段,激发无人机集群的自主应用潜力,提高无人机集群的智能化水平,推动无人机集群在军事和民用等重要领域的创新应用。

特申请设立无人机集群自主控制大会特邀专题,作为 2020 国际制导导航与控制学术会议的特邀专题进行论文征集。

望批准!

专题组织者:

王英勋 北京航空航天大学

董 琦 中国电科电子科学研究院

Special Session: Autonomous Control of the UAV Swarm

The UAV swarm has become the forefront of the UAV system development. With the continuous expansion of the swarm scale, the number of control nodes increases dramatically, which puts forward new requirements for the controller of the large-scale system. This topic focuses on the theory, technology and application of the UAV swarm autonomous control, and the following research directions will be discussed.

- ♦ Modeling and simulation of the UAV swarm;
- ♦ Networking and communication of the UAV swarm;
- ♦ Autonomous navigation of the UAV swarm;
- ♦ Autonomous planning of the UAV swarm;
- ♦ Autonomous control of the UAV swarm.

Through the research and discussion on the directions, new theories and methods for the cutting edge, technologies and for the and new means engineering applications will be gathered. Furthermore, the application swarm will potential ofthe UAV be stimulated, intelligent level of the UAV swarm will be improved, and the innovative application of the UAV swarm in both military and civil fields will be promoted.

Organizers:

Yingxun Wang, Beihang University

Qi Dong, China Academy of

Electronics and Information Technology