

IEEE ICUS 2021

Invited Session Summary

Title of Session Antagonistic Game for Unmanned Systems
Name, Salutation, Affiliation and Email of Organizers 1. Prof. Dewei Li Shanghai Jiao Tong University, China dwli@sjtu.edu.cn 2. Prof. Qinglei Hu Beihang University, China huql_buaa@buaa.edu.cn 3. Prof. Tao Li East China Normal University, China tli@math.ecnu.edu.cn 4. Prof. Peng Yi Tongji University, China yipeng@tongji.edu.cn 5. Asst. Prof. Xianwei Li Shanghai Jiao Tong University, China xianwei.li @sjtu.edu.cn 6. Asst. Prof. Haibin Shao Shanghai Jiao Tong University, China shore@sjtu.edu.cn
Details of Session (including aim and scope) <p>Recently, unmanned system swarms (UAV swarms for instance) play an increasingly important role in the military and civilian domains. When performing a task, an unmanned system swarm has to deal with complicated situations. Therefore, unmanned systems in the swarm need to comprehensively consider the task objectives, physical constraints, environmental situation, and other factors when making decisions, and also to collaborate with its other nearby unmanned systems to form a high-performance swarm system. Therefore, designing efficient decision-making methods and strategy systems for unmanned system swarms is the key to ensuring its functionality.</p> <p>This invited session mainly focuses on the state-of-the-art works on game for unmanned system swarm. In particular, papers related to unmanned system swarm task planning, collaborative games, antagonistic games, distributed optimization, network game, methods, and strategies for swarm combat are welcome.</p>