Sense and Avoid in Unmanned Systems

Organizers:

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Sense and Avoid (SAA) is the important performance of the autonomous ability of the unmanned system. It has become a hot research topic because its application in unmanned systems such as unmanned aerial vehicles (UAVs), unmanned ground vehicles (UGVs), unmanned surface vehicles (USVs), unmanned underwater vehicles (UUVs), robots and so on. The purpose of this session is to show and share new ideas and achievements of SAA in the application of unmanned system with relevant experts, scholars and engineers around the world. The paper topics of this session include but are not limited to: SAA model and mechanism, sensor configuration and autonomous perception, non-cooperative avoidance and real-time obstacle avoidance planning, bionic method of SAA, standardization in SAA, and other related innovative applications and research trends.

无人系统中的感知与规避技术

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牛轶峰,副教授,国防科技大学智能科学学院无人系统研究所,niuyifeng@nudt.edu.cn 马兆伟,讲师,国防科技大学智能科学学院无人系统研究所,mazhaowei1989@126.com 感知与规避是无人系统自主能力的重要体现,在诸如无人机、无人车、无人船、无 人潜器、机器人等无人系统中的应用已成为当前研究热点。本专题旨在与世界范围内相 关专家、学者、工程师一道,共同展示和分享感知与规避在无人系统中相关应用的新思 路和新成果。本专题论文主题包含但不限于:感知与规避模型与机理、传感器配置与自 主感知、非协作规避与实时避障规划、仿生感知与规避、标准化等方面的新方法,相关 创新应用及研究新趋势。