

Autonomous Control Technology of Intelligent Unmanned Systems

Organizers:

Yingxun Wang, Beihang University, China, wangyx@buaa.edu.cn

Zhihao Cai, Beihang University, China, czh@buaa.edu.cn

Jiang Zhao, Beihang University, China, jzhao@buaa.edu.cn

Kun Wu, Beihang University, China, wukun@buaa.edu.cn

Autonomous control technology of intelligent unmanned systems is a hot topic in the field of guidance, navigation and control (GNC), which has significance in theory research and practice application. As the mature application of unmanned aerial vehicles (UAVs), unmanned ground vehicles (UGVs), unmanned surface vehicles (USVs), robots and other unmanned systems in military and civilian fields, the improvement of autonomous capability of intelligent unmanned systems has received increasing attention. This session aims to explore and discuss the new development of autonomous control technology for intelligent unmanned systems with experts, scholars and engineers in related research fields. New ideas and contributions of autonomous control technology for intelligent unmanned system will be demonstrated and shared at the same time. The topics of this session include but are not limited to: autonomous levels of unmanned systems; new methods for autonomous sensing, planning, decision-making and control based on artificial intelligence; development trends and innovative applications of autonomous control technology for intelligent unmanned systems.

智能无人系统自主控制技术

组织者:

王英勋, 教授, 北京航空航天大学, wangyx@buaa.edu.cn

蔡志浩, 高工, 北京航空航天大学, czh@buaa.edu.cn

赵江, 讲师, 北京航空航天大学, jzhao@buaa.edu.cn

吴坤, 讲师, 北京航空航天大学, wukun@buaa.edu.cn

智能无人系统自主控制技术是制导、导航与控制研究领域的前沿热点问题, 具有重要的理论研究和应用价值。随着无人机、无人车、无人船、机器人等智能无人系统在军事与民用领域的应用愈发成熟, 能够进一步提高智能无人系统自主能力的技术受到越来越多的关注。本专题旨在与业内相关专家、学者、工程师共同探究和讨论智能无人系统的新发展, 共同展示和分享自主控制技术的新思路和新成果。本专题论文主题包括但不限于: 智能无人系统自主等级, 基于人工智能的自主感知、规划、决策和控制新方法, 智能无人系统自主控制技术的发展趋势等。