

IEEE ICUS 2021

Invited Session Summary

Title of Session Autonomous Intelligent Target Detection and Tracking
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Details of Session(including aim and scope) <p>The rapid advancement of Autonomous unmanned systems (such as UAV, unmanned boat and underwater robotic fish, etc.) has greatly promoted its wide applications in various complex mission scenarios. At the same time, it also significantly promotes the rapid growth of its own real-time target detection, recognition and tracking capabilities. The performance of the autonomous unmanned system is not only affected by the various high-performance sensor systems equipped but also extremely dependent on how to efficiently process the various types of data obtained by the sensors and obtain important content of interest, such as important goals and targets. movement patterns and morphological changes. Therefore, the research on high-performance intelligent target detection and tracking methods for Autonomous unmanned systems has very important theoretical and scientific significance, and it has a very critical role in advancing the deeper high-performance applications of Autonomous unmanned systems. The main content of this topic includes</p> <ul style="list-style-type: none">• Intelligent target detection• Automatic recognition of moving targets• Target tracking based on image content understanding• Radar-based tracking of moving targets• Cooperative target detection and tracking of multiple unmanned autonomous systems