IEEE ICUS 2021

Invited Session Summary

Title of Session

Intelligent Space Unmanned System

Name, Salutation, Affiliation and Email of Organizer

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Details of Session(including aim and scope)

Extraterrestrial space, as the main object for humans to explore the unknown world and carry out exploration activities, has gradually become the focus of research in countries around the world. The space unmanned system played a key role in the whole process. Looking to the future, an intelligent and autonomous space unmanned system is the inevitable trend of the next technological development, and it will make huge changes to space exploration missions, detection modes, and detection significance.

Research directions involve:

1. Space robot system (lunar rover, Mars rover, robotic arm, unmanned aerial vehicle, etc.)
2. Intelligent perception and distributed sensing technology of space unmanned systems
3. Intelligent decision-making and autonomous planning technology for space unmanned systems
4. Intelligent control and parameter identification technology for space unmanned systems
5. Application of a new generation of artificial intelligence technology in space unmanned systems