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Call for Papers

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Special Issue on: Learning Intelligence for Autonomous Unmanned System Applications

The aim of this special issue on learning intelligence for autonomous unmanned system applications is to bring together researchers and practitioners from both academia and industry into a forum, to show the state-of-the-art achievements and applications in the general area of learning intelligence for autonomous unmanned system applications, by providing efficient scientific and engineering solutions, addressing the needs and challenges for integration with new technologies, and providing visions for future research and development.

Learning intelligence has become very popular for the computer, information science and engineering community in recent years. The reason mainly comes from two aspects: the theoretical advances in related disciplines such as machine learning, deep learning, and reinforcement learning have witnessed great breakthrough; the technical applications for autonomous unmanned system have solved many actual problems and accelerated its development. Companies like Google, Tesla, and Apple all launched their industrial products such as autonomous unmanned vehicle with advanced functions that are made possible due to the development of learning intelligence factors including the information perception, interaction, and intelligent control and learning intelligence, to name just a few. These developments indicate that learning intelligence is playing an unprecedented role in modern automation systems. Nevertheless, there are many challenging issues to explore in the implementation of learning intelligence for a practical automatic system, such as system design, security, robustness, and accessibility.

Topics of interest include, but are not limited to:

- Learning intelligence for real-time object detection, recognition and tracking
- Learning intelligence for map building and localization
- Learning intelligence for real-time sensing
- Learning intelligence for autonomous control
- Learning intelligence for autonomous decision-making
- Learning intelligence for motion planning
- Learning intelligence for path tracking and motion control
- Learning intelligence for intelligence testing and verification

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