Special Issue

Multi-Robot Systems: Design, Control and Applications

Message from the Guest Editor

Multi-robot systems are a field of study that deals with the design, control and application of multiple robots working together to achieve a common goal. In recent years, researchers working in the field of robotics have conducted much research on multi-robot systems with the aim of performing complex tasks that would be impossible with a single robot, and can also provide redundancy and increased robustness in the face of system failures. The fusion of sensors and actuators physically distributed in space also makes it possible to perform tasks that would be impossible for the single robot. Indeed, this implies the presence of an additional layer of control, to share work between machines and a methodology of cooperation between them. The design of multi-robot systems includes the selection of appropriate robot platforms, the development of communication and coordination methods, and the implementation of control algorithms that enable robots to work together effectively. This Special Issue aims to discuss the state of the art in this field and provide an overview of the technology and developments needed to exploit the full potential of multi-robot systems.

Guest Editor

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There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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