Call for Papers
Special Issue on
"Artificial Intelligence for Physical Agents" [1188]

Nowadays, many Artificial Intelligence (AI) techniques are being applied to control and interact with physical agents (mobile robots, vehicles, manipulators, bio-bots, etc.). It is expected that AI will revolutionize our daily life in the near future and the unstoppable "robotics revolution" open a myriad of challenges for the application of AI over many and varied physical agents.

This special issue is focused on novel AI techniques in perception, software architectures and middleware, applied to a robot or multiple robots that must navigate through a dynamic environment while it/they simultaneously interact with the people in the surroundings. The possibilities for research and application are practically infinite. But all of them must converge within a physical agent that has a continuous and fluent interaction with its environment.

Authors are invited to submit papers that fall into the area of robotics. The topics of interest include but are not limited to the following:

- Software agents
- Multi-agent systems
- Smart-sensors networks
- Human-Robot interaction
- Robotic manipulators
- Robocup and soccer robots
- Mobile robots
- Cooperating robots
- Machine learning and robotics
- Deep-Learning and robotics
- Industrial robotics
- Perception systems
- Autonomous navigation
- Localization and mapping

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Important Dates

Submission due: January 31, 2021
Results of first round: March 31, 2021
Revised paper due: May 31, 2021
Final decisions: August 31, 2021
Camera ready: September 15, 2021
Issue publication: Autumn 2021

Submission Guidelines

Authors should prepare their manuscript according to the Instructions for Authors available from the Multimedia Tools and Applications website. Authors should submit through the online submission site at https://www.editorialmanager.com/mtap/default.aspx and select "**SI 1188 - Artificial Intelligence for Physical Agents**" when they reach the "Article Type" step in the submission process. Submitted papers should present original, unpublished work, relevant to one of the topics of the special issue. All submitted papers will be evaluated on the basis of relevance, significance of contribution, technical quality, scholarship, and quality of presentation, by at least three independent reviewers. It is the policy of the journal that no submission, or substantially overlapping submission, be published or be under review at another journal or conference at any time during the review process.

The special issue will consider papers extending previously published conference papers, provided the journal submission presents a significant contribution beyond the conference paper. Authors must explain in the introduction to the paper the new contribution to the field made by the submission, and the original conference publication should be cited in the text. Note that neither verbatim transfer of large parts of the conference paper nor wholesale reproduction of already published figures is acceptable.