Industrial Robotics: Design and Applications

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closed (30 June 2023)

Message from the Guest Editors

Dear Colleagues,

This Special Issue invites paper presenting novel methodologies, methods, and software tools pushing the synergetic interaction (and integration) between AI and robotics in industrial scenarios. We particularly welcome papers that investigate the use of AI to enhance the "cognitive capabilities" of industrial robots to achieve increasingly flexible and "intelligent" behaviors. Examples are: (i) the use of AI to allow industrial robots to dynamically adapt their skills to the different and evolving production needs of a shop floor; (ii) the use of AI to enhance perception capabilities and allow industrial robots to track human operators, recognize human tasks, and dynamically configure and/or adapt robot behaviors to the inferred "intentions" of a worker; (iii) the use of AI to realize innovative control approaches that increase the dependability and flexibility of industrial robots and allow them to effectively (and efficiently) work in production scenarios affected by uncertainty, such as in human–robot collaboration.

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Special Issue

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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