



Assessment, Validation and Improvement of Safety and Ergonomics in Human-Robot Interaction

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Message from the Guest Editors

In the robotization era, human–robot interactions (HRIs) push the limit toward optimal and synergistic paradigms for the execution of tasks. As a consequence of the closer human–robot interactions, the current challenges in robotic implementation go beyond the technological issues, including safety and ergonomics as fundamental boundaries. Safety-related considerations apply to the whole development, implementation and lifecycle of applications, requiring specific approaches for assessment and validation, control strategies, and other equipment. Furthermore, ergonomics (both physical and cognitive) is fundamental for implementing safe, fluent and efficient collaborative applications. These aspects are even more significant in the context of the Industry 5.0 worker-centric paradigm, where a worker’s well-being plays a large role.

This Special Issue focuses on the research efforts dealing with the latest safety and ergonomic challenges arising in the assessment, validation and improvement of collaborative robotic applications, while also considering integrated design methodologies, ranging from industry and smart factories to novel application fields.





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Message from the Editor-in-Chief

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