

Special Issue

Recent Advances in Collaborative Robotics

Message from the Guest Editors

Twenty-five years after Professors J. Edward Colgate and Michael Peshkin patented a robot architecture called the cobot, intended for direct physical interaction with human operators, one could argue that not all the expectations they created have been met. However, the advances made have allowed the market to grow steadily, with established companies such as Universal Robot having sold more than 50,000 units since 2008, all robot brands including at least one cobot model in their portfolio, and many new cobot manufacturing companies appearing in the market. Analysts forecast 20% growth to continue until 2030. This has been possible thanks to the shared efforts of scientists from different fields, standardization and regulatory bodies and industrial companies that have enabled advances in human–robot interaction, perception and cognition technologies, and the application of AI, new sensors and robot concepts to create safe environments, innovative control paradigms and regulatory frameworks. This Special Issue aims to provide an overview of the latest developments in these fields, including examples of practical implementation.

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Message from the Editor-in-Chief

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