



Advanced Robots: Design, Control and Application

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Message from the Guest Editors

Dear Colleagues,

Research into the design, control and application of advanced robots has increased during the last few decades, with many different and interesting projects being developed. Advanced robots have many promising applications in various areas of modern society.

Contributions from all fields related to advanced robots are welcome in this Special Issue, particularly the following:

- Human–robot interactions (HRI) and social robotics;
- Safety issues for advanced robots and autonomous systems;
- Legal and ethical issues for advanced robots;
- Advanced industrial robots for future manufacturing;
- Healthcare and medical applications;
- Service and assistance;
- Entertainment and education;
- Robotics and autonomous driving;
- Artificial intelligence (AI) and robotics;
- Bio-inspired robotics.

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Message from the Editor-in-Chief

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of \$1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

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