# ROBOTICS AND AUTONOMOUS SYSTEMS

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**AUTHOR INFORMATION PACK**

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## DESCRIPTION

*Robotics and Autonomous Systems* will carry articles describing fundamental developments in the field of **robotics**, with special emphasis on **autonomous systems**. An important goal of this journal is to extend the state of the art in both **symbolic** and **sensory** based **robot control** and **learning** in the context of autonomous systems.

*Robotics and Autonomous Systems* will carry articles on the theoretical, computational and experimental aspects of autonomous systems, or modules of such systems.

Application environments of interest include industrial, outdoor and outer space where advanced robotic techniques are required for autonomous systems to accomplish goals without human intervention; this includes robotics for hazardous and hostile environments.

*Robotics and Autonomous Systems* will carry brief reports on international meetings in the field, as well as an occasional multi-author debate on current topics of interest. Forthcoming meetings of importance will be listed.

In more detail, the journal will cover the following topics:

• Symbol mediated robot behavior control;
• Sensory mediated robot behavior control;
• Active sensory processing and control;
• Industrial applications of autonomous systems;
• Sensor modeling and data interpretation e.g. models and software for sensor data integration, 3D scene analysis, environment description and modeling, pattern recognition;
• Robust techniques in AI and sensing e.g. uncertainty modeling, graceful degradation of systems;
• Robot programming e.g. on-line and off-line programming, discrete event dynamical systems, fuzzy logic;
• CAD-based robotics e.g. CAD-based vision, reverse engineering;
• Robot simulation and visualization tools;
• Tele-autonomous systems;
• Micro electromechanical robots;
• Robot control architectures;
• Robot planning, adaptation and learning.

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*Robotics and Autonomous Systems* will carry articles describing fundamental developments in the field of robotics, with special emphasis on autonomous systems. An important goal of this journal is to extend the state of the art in both symbolic and sensory based robot control and learning in the context of autonomous systems.

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• CAD-based robotics e.g. CAD-based vision, reverse engineering;

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