



*applied sciences*



*Special Issue Reprint*

## **Automation and Robotics: Latest Achievements, Challenges and Prospects**

[www.mdpi.com/books/reprint/5441](http://www.mdpi.com/books/reprint/5441)

Edited by  
Pavol Božek  
Tibor Krenicky  
Yury Nikitin

ISBN 978-3-0365-3313-1 (Hardback)

ISBN 978-3-0365-3314-8 (PDF)



This SI presents the latest achievements, challenges and prospects for drives, actuators, sensors, controls and robot navigation with reverse validation and applications in the field of industrial automation and robotics.

Automation, supported by robotics, can effectively speed up and improve production. The industrialization of complex mechatronic components, especially robots, requires a large number of special processes already in the pre-production stage provided by modelling and simulation. This area of research from the very beginning includes drives, process technology, actuators, sensors, control systems and all connections in mechatronic systems.

Automation and robotics form broad-spectrum areas of research, which are tightly interconnected. To reduce costs in the pre-production stage and to reduce production preparation time, it is necessary to solve complex tasks in the form of simulation with the use of standard software products and new technologies that allow, for example, machine vision and other imaging tools to examine new physical contexts, dependencies and connections.



Order Your Print Copy  
You can order print copies at  
[www.mdpi.com/books/reprint/5441](http://www.mdpi.com/books/reprint/5441)

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



## Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



## Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



## High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.