



applied sciences



Special Issue Reprint

Advances in Artificial Intelligence Methods Applications in Industrial Control Systems

www.mdpi.com/books/reprint/6973

Edited by
Emanuele Carpanzano

ISBN 978-3-0365-6808-9 (Hardback)
ISBN 978-3-0365-6809-6 (PDF)



The motivation for the present reprint is to provide an overview of novel applications of AI methods to industrial control systems by means of selected best practices in highlighting how such methodologies can be used to improve the production systems self-learning capacities, their overall performance, the related process and product quality, the optimal use of resources and the industrial systems safety, and resilience to varying boundary conditions and production requests.

By means of its seven scientific contributions, the present reprint illustrates the increasing added value of the introduction of AI methods for improving the performance of control solutions with reference to different control and automation problems in different industrial applications and sectors, ranging from single manipulators or small unmanned ground vehicles up to complex manufacturing. Additionally, the role of AI to improve the performance of relevant engineering methodologies and digital instruments, such as cyberphysical systems, digital twins, and human–robot collaboration, are also effectively addressed in the included contributions.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6973

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.