







Special Issue Reprint

Bio-Inspired Approaches—a Leverage for Robotics

www.mdpi.com/books/reprint/11211

Edited by Swaminath Venkateswaran Damien Chablat Poramate Manoonpong Julien Serres

ISBN 978-3-7258-4546-0 (Hardback) ISBN 978-3-7258-4545-3 (PDF)



The field of bio-inspired approaches (also known as biomimetics or biomimicry) is a design approach in which a product or process is inspired by elements of nature, such as plants or animals. Bio-inspired approaches serve as inspiration and motivation for many engineers and designers in terms of efforts to identify unexpected solutions to problems. These approaches have made great inroads in the aerospace, marine, and automotive industries. The domains of bio-inspiration and bio-mimetics have also been the focus of a number of studies in the field of robotics. There are several examples of their use in the literature, including their implementation in snake-type robots for underwater inspection or in worm-type systems for industrial pipeline inspections. This Special Issue compiles and presents recent advancements in the domain of bio-inspired robotics and their potential applications in industry. This will help researchers from all communities understand the relevance of bio-inspiration in robotics and serve as a platform for the application of these cutting-edge approaches in other fields.





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.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

