



Special Issue Reprint

Advances in Mechanical Systems Dynamics 2020

www.mdpi.com/books/reprint/4813

Edited by
Alberto Doria
Giovanni Boschetti
Matteo Massaro

ISBN 978-3-0365-2870-0 (Hardback)

ISBN 978-3-0365-2871-7 (PDF)



The fundamentals of mechanical system dynamics were established before the beginning of the industrial era. The 18th century was a very important time for science and was characterized by the development of classical mechanics. This development progressed in the 19th century, and new, important applications related to industrialization were found and studied. The development of computers in the 20th century revolutionized mechanical system dynamics owing to the development of numerical simulation. We are now in the presence of the fourth industrial revolution. Mechanical systems are increasingly integrated with electrical, fluidic, and electronic systems, and the industrial environment has become characterized by the cyber-physical systems of industry 4.0. Within this framework, the status-of-the-art has become represented by integrated mechanical systems and supported by accurate dynamic models able to predict their dynamic behavior. Therefore, mechanical systems dynamics will play a central role in forthcoming years. This Special Issue aims to disseminate the latest research findings and ideas in the field of mechanical systems dynamics, with particular emphasis on novel trends and applications.

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.