

Special Issue

Variable Stiffness Physical Interaction in Robotic Devices and Machines

Message from the Guest Editors

Variable stiffness in physical interactions is a common feature in nature (i.e., tree-branch connections in flora, cartilage-bone connections in fauna), in our daily lives (i.e., hand-phone interaction while grasping; foot-ground interaction while walking), in our machines (e.g., human-robot interaction and wheel-ground interaction in our automobiles), and structures (e.g., electric cable-pylon connections). Therefore, it is fundamental to understand the behavior of the variable stiffness in physical interactions, from both hardware and software point of views, to develop innovative robotic devices and machines for daily use. In this Special Issue, we would like to explore the variable stiffness in physical connections and interactions from a mechanical and control point of view. To this end, we welcome the submission of papers presenting new challenges in the control, design, and development of compliant machines, novel compliant mechanisms and systems, new robots and devices, and many other architectures and artefacts.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided. There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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