Special Issue

Magnetostrictive Transducers, Sensors, and Actuators

Message from the Guest Editors

Sensors and actuators are key elements of any control system. In the last two decades, smart materials have played a significant role when it comes to enhancing the performance of mechatronic systems in industries. The high magneto-mechanical coupling coefficient, high Young's modulus, and low cost combined with the ductility of some alloys and operating in the harsh environment make the magnetostrictive material a suitable candidate for manufacturing sensors and actuators.

This Special Issue aims to highlight advances in the development, testing, modeling, and controlling of magnetostrictive transducers, on the component level as well as within control systems. For more information, please click: mdpi.com/si/84613 or mdpi.com/si/84419

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Deadline for manuscript submissions

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About the Journal

Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of $1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

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