# Special Issue

# Recent Advances in the Design and Applications for Magnetoelastic and Electroelastic Actuators

### Message from the Guest Editors

The field of actuation systems is very dynamic and profoundly impacts the development of engineering sciences. The development of new materials with piezoelectric, magnetostrictive, and electrostrictive properties, as well as new polymeric materials from the category of elastomers, has generated the possibility of developing new actuators. This Special Issue will cover original experimental and applied research on electroelastic, magnetoelastic, and thermoelastic actuating systems. The scope covers actuators for various disciplines and industries, from advanced manufacturing to automotive, aircraft, aerospace, marine, medical instruments, and robotics. Miniaturization and increasing the precision of electroelastic, magnetoelastic, and thermoelastic actuators are essential requirements in current practical applications. You are welcome to submit a manuscript for this Special Issue. Academic researchers and authors are invited to contribute original research articles and reviews (including comprehensive assessments on complete actuator products). We Look forward to your contributions.

### Guest Editors

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### Deadline for manuscript submissions

closed (25 July 2025)

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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.

## Editors-in-Chief

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