Special Issue

Electromagnetic Actuators

Message from the Guest Editors

This Special Issue intends to disseminate recent advances in electromagnetic actuators design, optimization, manufacturing, test, operation and control, covering everything from macroscale large electromagnetic actuators to microscale electromagnetic systems. This Special Issue includes contributions related (but not limited) to the following topics:

- Rotary electromagnetic actuators: DC and/or AC motors, stepper motors, geared electromagnetic motors and motor-reducers.
- Axial and radial flux motors.
- Linear electromagnetic actuators: solenoids, voice coils, DC and AC linear electric motors.
- MEMS (Micro-ElectroMechanical Systems), electromagnetic microactuators.
- Other type of electromagnetic actuators: relays, switches, magnetorquers, spherical actuators, magnetorheological actuators, direct drives, magnetically geared actuators, magnetomechanical systems, superconductivity-based actuators and electromagnets.

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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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