



Advanced Ultrasonic Motors and Sensors: Design, Optimization and Applications

Guest Editors:

Dr. Lin Yang

State Key Laboratory of
Mechanics and Control of
Mechanical Structures, Nanjing
University of Aeronautics and
Astronautics, Nanjing 210016,
China

Prof. Dr. Jiantao Zhang

School of Mechatronic
Engineering and Automation,
Shanghai Key Laboratory of
Intelligent Manufacturing and
Robotics, Shanghai University,
Shanghai 200444, China

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Message from the Guest Editors

Dear Colleagues,

This Special Issue is devoted to introducing new theories, new methods, new technologies, and their applications in the field of advanced ultrasonic motors and sensors. The ultrasonic motor is a micro motor developed in the past 40 years, and it has small size, light weight, no electromagnetic interference, shape diversification, and other unique advantages. It also has a wide range of applications in space satellite drive mechanisms, high-end medical equipment, optics, robotics, micro terminal equipment, and other fields. In addition, ultrasonic sensors have been widely used, in recent years, in the fields of robotics, minimally invasive surgery (MIS), health monitoring, human-computer interaction, smart prosthetics, bionics, energy harvesting, and surface detection. In addition, application fields are constantly expanding.

- structural design and optimization of ultrasonic motors and sensors
- mechanism and theory
- driving methods and control strategies
- piezoelectric materials and friction materials
- dynamic modeling
- friction and wear
- fault diagnosis and remaining life
- application research of ultrasonic motors and sensors





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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
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