

Special Issue

Power Electronics and Actuators—Second Edition

Message from the Guest Editors

Electromagnetic actuators have been widely used in many areas including aerospace, machine tools, transportation, and so on. The power electronics converter is the main drive for the actuators, with control capability for the motion of the actuator through electromagnetic force. The efficiency, power density, dynamic response, and reliability are the major pursuits of the power electronics drive for the actuator. The control method also presents challenges. With next-generation wide-band-gap power electronics devices, there are new opportunities for the performance of power electronics drive for actuators. This Special Issue is for the progress of power electronics converters for the actuator drive in different applications. Original papers and survey papers are welcome.

Guest Editors

Prof. Dr. Dong Jiang

Prof. Dr. Sizhao Lu

Dr. Zewei Shen

Deadline for manuscript submissions

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Actuators
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
actuators@mdpi.com

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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

Prof. Dr. Kenji Uchino

Electrical Engineering, Emeritus Academy Institute, Pennsylvania State University, University Park, PA 16802, USA

Prof. Dr. Norman M. Wereley

Department of Aerospace Engineering, University of Maryland, 3179J Martin Hall, College Park, MD 20742, USA

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