Special Issue

Intelligent Control for Pneumatic Servo System

Message from the Guest Editors

Pneumatic actuators are widely used in practical applications because they are small, have a relatively large output which can be easily obtained, and they are inexpensive and easy to use. Its applications are expanding from conventional simple work to fields requiring more advanced control. Along with this, several control methods have been applied to improve the control performance of pneumatic servo systems. In order to obtain the desired control performance for such a control system, it is necessary to add parameter optimization functions to the conventional linear control method, integrate methods to compensate for nonlinearity, or use several AI techniques with nonlinear compensation capabilities. The present Special Issue features papers which provide research approaches on intelligent pneumatic servo control methods with adaptive, optimal, learning, and nonlinearity compensating functions that can mitigate the adverse effects of parameter fluctuation characteristics and nonlinearity on control.

Guest Editors

Prof. Dr. Satoru Shibata

Graduate School of Science and Engineering, Ehime University, Matsuyama, Japan

Dr. Shenglin Mu

Graduate School of Science and Engineering, Ehime University, Matsuyama, Japan

Deadline for manuscript submissions

30 April 2025

Actuators

MDPI

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Editor-in-Chief

Prof. Dr. Kenji Uchino
Academy Professor, Emeritus Academy Institute, The Pennsylvania
State University, University Park, PA 16802, USA

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