

Special Issue "Modern Trends in Automation and Robotics in tribute to Professor Tadeusz Kaczorek"

keywords: automation, automatization, robotics, dynamical systems, linear control systems, nonlinear control systems, differential/difference equations; fractional calculus, time scale, nonlinear methods, control algorithms, feedback systems
Deadline for manuscript submissions: August 31, 2022

Special Issue Editors

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Special Issue Information

Dear Colleagues,

As it is known, real phenomena are by their nature non-linear and often complex. It is also known that conducted research should, on the one hand, be as close to reality as possible, and on the other hand, it must meet the existing challenges. Any analysis of real systems is aimed at examining their properties and designing an appropriate control strategy that enables proper steering of the automatic/robotic/mechatronic process. Hence, it is important to take into account various aspects of a real phenomena, such as systems modeling, control system design, stability and robustness, uncertainty and disturbances analysis. An analysis of these and other properties should give an insight into the process, enabling a better understanding and allowing for a proper selection of the control strategy.

The nonlinear nature of real phenomena requires an analysis with the use of modern concepts and tools of automatic, robotic, mechatronic, such as fractional calculus, calculus on time scales, the usage of modern algebraic methods, multifractality, causality analysis and others.



The aim of this Special Issue is to give the interested readers state-of-the-art in automation control, robotics, mechatronics and control theory. We invite you to submit manuscripts presenting theoretical, simulation and experimental research in the field of broadly understood control processes, automation and robotics. The use of new, non-standard techniques, allowing understanding and expanding modern control is what Professor Tadeusz Kaczorek have been doing in His work. To acknowledge that, this special issue is in tribute to Professor Tadeusz Kaczorek on his 90thy birthday.

Ewa Pawłuszewicz and Łukasz Sajewski, Guest Editors

Manuscript Submission Information

Manuscripts should be submitted via our Editorial Manager system: <u>www.editorialmanager.com/ama/default.aspx</u>

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