Analysis and Control of Nonlinear Dynamical System

Guest Editor:

Dr. Stepan Tkachev
Keldysh Institute of Applied
Mathematics, Miusskaya Sq. 4,
125047 Moscow, Russia

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Message from the Guest Editor

Dear Colleagues,

With the ever-increasing control performance requirements for nonlinear systems, the problem of new algorithms synthesis arises. The algorithm should satisfy accuracy, power or fuel consumption, time response and other constraints. In addition, the control system usually operates when there is a limit for computational capabilities while the information about the system itself and its state vector is inaccurate.

Another problem is the nonlinear system analysis. If the system is linear, there is a set of analytical and semi-analytical methods that can usually prove the control performance. In the case of a nonlinear system, usually only pure numerical methods of analysis are applied, which are not always effective. Therefore, the development of new methods and the adaptation of the existing ones is essential.

This Special Issue aims to demonstrate the modern control theory applied to real nonlinear systems and share examples of analytical and numerical analysis.

Special Issue

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Message from the Editor-in-Chief

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