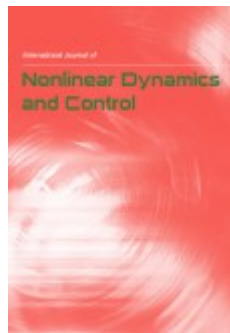


## Call for Papers



### *International Journal of Nonlinear Dynamics and Control*

## **CNCA 2019: Special Issue on: "Recent Trends in Control Systems: Engineering Applications"**

### *Guest Editors:*

Dr. Jesus Manuel Munoz-Pacheco, Dr. Jose Fermi Guerrero-Castellanos and Dr. Luz del Carmen Gómez-Pavón, Benemérita Universidad Autónoma de Puebla, Mexico

Dr. Lizeth Torres, Universidad Nacional Autónoma de México, Mexico

Applied researchers are always faced with control problems due to the complexity of models representing non-linear systems. An essential notion in control theory is the feedback process, in which the difference between the actual and desired output is applied as feedback to force the output to evolve to a required state. From an engineering point of view, this process involves several control techniques for use in real-world applications. For instance, cyber-physical systems have been entering our daily life, e.g. in transportation systems, security, smart cities, medical systems, water distribution, agriculture, military systems, process control, asset management, and robotics. All of these applications involve the integration of computing, communication and control. In another example, control of power and energy systems plays an essential role in continuing the development of different kinds of smart grids, enabling more reliable and safer power systems and technologies. A further example is the control of medical systems for increasing the automation of diagnosis, with the aim of improving quality of life. This is just a selection of many examples.

In this context, this special issue is devoted to the presentation and discussion of the latest engineering innovations in control techniques. Contribution to the special issue should focus on the aspects of applications of control theory and nonlinear dynamics.

The Guest Editors will be inviting substantially extended versions of selected papers presented at the [National Congress of Automatic Control \(CNCA 2019\)](#) for review and potential publication, but are also inviting other experts to submit articles for this call.

### **Subject Coverage**

Suitable topics include, but are not limited, to the following:

- Control systems for industrial applications
- Control of cyber-physical systems
- Applications of event-based control
- Control of power systems
- Robotics and mechatronics
- Applications of fractional-order control
- Adaptive control
- Chaos control
- Sliding mode control
- Energy systems and renewable sources
- Electronic instrumentation of control systems
- Nonlinear oscillator synchronisation
- Robust control and observer design
- Synchronisation of nonlinear systems with multi-stability
- Applications of time varying and time delay systems control
- Control of UAVs
- Control of biological systems
- Control applied to automotive systems
- FPAA and FPGA implementations
- Processes automation
- Innovation for engineering

## Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper).

All papers are refereed through a peer review process.

**All papers *must* be submitted online.** To submit a paper, please read our [Submitting articles](#) page.

If you have any queries concerning this special issue, please email the Guest Editors:

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## Important Dates

Manuscripts due by: *30 January, 2020*

Notification to authors: *30 March, 2020*

Final versions due by: *30 May, 2020*