



CALL FOR PAPERS
SPECIAL SESSION ON
(Analysis and Control of Nonlinear Dynamical Systems)
for ICCAD'22
July 13-15, 2022, Lisbon-Portugal

Session Co-Chairs:

- Prof. Ahmad Taher AZAR, IEEE Senior Member, IRSS Senior Member, ISA & IFAC member College of Computer and Information Sciences, Prince Sultan University, Riyadh, Saudi Arabia Automated Systems and Soft Computing Lab, Prince Sultan University, Riyadh, Saudi Arabia. Faculty of Computers and Artificial Intelligence, Benha University, Benha, Egypt. (ahmad_t_azar@ieee.org)
- Dr. HDR. Chakib BEN NJIMA, Associate Professor - Researcher University of Sousse-Tunisia. President of the Tunisian Association of Technology and Sustainable Development (ATTeDD). Founder of the International Conference on Control, Automation and Diagnosis (ICCAD). (chakib.bennjima@enim.rnu.tn)

Session description:

Control and automation in its broadest sense plays a fundamental role in process industries. Automatic control systems involve mathematics more than it is usual in other disciplines. Nonlinear control issues, such as robust stabilization and adaptive tracking, naturally occur when dealing with nonlinear controlled systems that may be subject to a variety of unknown uncertainties and/or time-varying disturbances. Over the last few decades, great progress has been achieved in the development of design techniques for the control of nonlinear systems and their applications using various mathematical tools. Although the literature contains a significant number of interesting and valuable results, the synthesis of control strategies for a broader class of nonlinear systems as well as broader applications remains challenging and open, particularly for the diversely complicated control tasks arising from the growing integration with emerging technologies in communication and computation areas.

The proposed Special Session major goal is to deliver a cutting-edge collection of articles showing novel breakthroughs in nonlinear control techniques in both theoretical background and applications. The special session aims to solicit original, full length original articles on new findings and developments from researchers, academicians and practitioners from industries, in the area of analysis and synthesis of nonlinear system control problems. We invite authors to submit original research articles on any subject of this special session.

The topics of interest include, but are not limited to:

- Adaptive and Robust Control

- Chaos Control
- Chaos Synchronization
- Complex Dynamics
- Feedback System
- Fuzzy and Neural Control
- Global Stability
- Mobile Robots
- Modeling and Simulation of Nonlinear Systems
- Nonlinear System
- Non-Smooth/Finite-Time/Fixed-Time Control
- Observer Design
- Optimal Control for Systems with Parametric Uncertainties
- Robust Control
- State/Output Feedback
- Switched Systems
- Stochastic Control
- Stochastic Differential Equation
- Supervisory Nonlinear Control

SUBMISSION

Papers must be submitted electronically for peer review by: **February 28, 2022**

<http://www.iccad-conf.com/submission.html>

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).