

# 7<sup>th</sup> IFAC Conference on Analysis and Control of Nonlinear Dynamics and Chaos (ACNDC24)

Previously known as IFAC CHAOS

5 – 7 June, 2024

London || UK

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## Important Dates

**Paper submission:**  
8 November 2023

**Invited Session Proposal:**  
1 November 2023

**Notification of acceptance:**  
February 2024

**Submission of final papers:**  
March 2024

**Conference day:**  
5-7 June 2024

### National Organising Committee

Giordano Scarcioffi (NOC Chair)  
David Angeli (NOC Co-Chair)  
Kameswarie Nunna (NOC Vice-Chair from Industry)

### International Programme Committee

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### IFAC Main Sponsoring Technical Committee

TC 2.3. Non-Linear Control Systems

### IFAC Co-Sponsoring Technical Committees

TC 1.2. Adaptive and Learning Systems  
TC 1.3. Discrete Event and Hybrid Systems  
TC 1.5. Networked Systems  
TC 2.1. Control Design  
TC 2.5. Robust Control  
TC 8.2. Biological and Medical Systems

The conference is the seventh IFAC meeting related to analysis and control of chaotic systems. The 2024 edition aims at expanding the scope of the conference to include contributions not only in the traditional IFAC CHAOS areas but also in complexity, complex systems and nonlinear dynamics, all of which have a strong mathematical and physical flavour. The conference will collect the most prominent and timely contributions in the interdisciplinary field of chaos, control and synchronization of nonlinear dynamics, including complex networks scenarios. Several research areas lean on this field, taking advantage from new developments. Biology (brain dynamics, heart beating, human-machine interaction etc.), physics (optics, magnetics, fluidics and microfluidics, etc.), mechanics and electro-mechanics, engineering (nonlinear dynamics of electronic and power electronic circuits and systems, chaos encryption, robotics, etc.), economics (critical decision, data-series analysis etc.), chemical engineering, and so on. The aim of the conference is to provide the communities of control engineering, physics, economics, biology, fluid dynamics, power electronics, electronic circuits, etc. with an opportunity to exchange information and new ideas and to discuss new developments in the field of chaos control and synchronization. Both theory and applications will be discussed. The conference also aims at directly involving students and young researchers to introduce them to the field of chaos and nonlinear dynamics, with its range of applications in various fields of engineering.

The conference will cover all topics related to chaos and synchronization within the framework of control systems theory and engineering, including (but not limited to) the following:

- Control of complex systems
- Bifurcations in complex systems
- Nonlinear time series and identification
- Networks of oscillators
- Brain and neural dynamics
- Small world networks
- Applications (biology, chemical engineering, physics, electrical engineering)
- Control and observation via communication constraints
- Provide a discussion forum for the physics, chaos, and control system communities!

