

The logo for Jestr, featuring the word "Jestr" in a stylized, cursive blue font.

**Eastern Macedonia & Thrace Institute of Technology**



***Journal of Engineering Science and Technology Review***

Call for Papers for the Special Issue on **"Synchronization and Control of Chaos: Theory, Methods and Applications"** of the JESTR

You are cordially invited to submit a manuscript to the Journal of Engineering Science and Technological Review (JESTR, ISSN: 1791-2377),

for the Special Issue on

**"Synchronization and Control of Chaos: Theory, Methods and Applications"**

Journal of Engineering and Technology Review (JESTR) is an open access journal in which the publication of an article is free of charge.

The Journal of Engineering Science and Technology Review (JESTR) is indexed in: SCOPUS, EBSCO, DOAJ, CERN, ACS, SCHOLAR GOOGLE.

### **About Special Issue**

In the last decades Chaos theory has become a very important research field, employing many applications in different disciplines like physics, chemistry, biology, engineering and economics, among others. Its scope is based on scientific studies associated with the search on behaviour of nonlinear dynamical systems, which are highly sensitive to their initial conditions (chaotic systems). In time several kinds of sub-working fields have also been introduced within the context of research studies on the Chaos theory.

Chaos control (control of chaos) and chaos synchronization are some sub-working fields that can be examined within the mentioned content. Chaos control and chaos synchronization are especially remarkable and important research fields aiming to affect dynamics of chaotic systems in order to use them for different kinds of applications that can be examined within many different fields like computer sciences, mechanics, communication, economics and finance, biology, chemistry, medicine, geology, among others.

Currently, there are different kinds of approaches or methods that have been proposed for performing chaos control and chaos synchronization tasks. But because of some disadvantages

and limitations of these ones, newer approaches or methods are designed and introduced by researchers to improve the related works within the field. Additionally, there are also many studies already introduced in order to improve more advanced solutions for problems of chaos control and chaos synchronization. Most of these studies include usage of intelligent approaches or systems on the related problems of the Chaos theory.

So, this Special Issue aims at presenting the latest developments, trends, research solutions and applications of control and synchronization of chaotic systems. Topics of interests include, but are not limited to:

- Control of oscillations and chaos.
- Chaotic synchronization.
- Artificial intelligence techniques and their usage on control of chaos and chaos synchronization, such as Fuzzy Logic, Artificial Neural Networks, Genetic Algorithms, etc.
- Optimization algorithms and their applications on synchronization and control of chaos, such as Particle Swarm Optimization (PSO), Ant Colony Optimization (ACO), Artificial Bee Colony (ABC), etc.
- Newer approaches, methods and techniques of control and chaos synchronization.
- Designed and developed hybrid systems for synchronization and control of chaos.
- Newer approaches for improving introduced classical control and synchronization methods on chaotic systems.
- Applications of synchronization and control of chaos in computer sciences, mechanics, economics and finance, biology, chemistry, medicine, geology etc.
- Applications of synchronization and control of chaos in engineering field, such as in secure communication schemes, cryptography etc.

## Instructions to Authors

Papers should be submitted to the email: [chvolos@gmail.com](mailto:chvolos@gmail.com). At the first page of each submitted manuscript, authors should state that the paper is meant for the Special Issue on "Synchronization and Control of Chaos: Theory, Methods and Applications". The papers will be peer reviewed according to the usual standards of this journal and evaluated on the basis of originality, quality, relevance, clarity and correct use of English.

The submitted papers should be formatted according to the journal style. For more detailed information concerning the requirements for submission, please refer to the journal homepage at:

[http://www.jestr.org/index.php?option=com\\_content&view=article&id=6&Itemid=16](http://www.jestr.org/index.php?option=com_content&view=article&id=6&Itemid=16)

## Important Dates

- Paper submission deadline: September 30, 2014
- 1st round review due: October 31, 2014
- 1st revision due: October 15, 2014
- 2nd round review due: November 15, 2014
- 2nd revision due: November 30, 2014
- Final acceptance approved by JESTR: December 31, 2014

## Guest editors

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