



## Mathematical Models and Control of Biological Systems

Guest Editor:

### Message from the Guest Editor

**Prof. Dr. Pablo Antonio López-Pérez**

Escuela Superior de Apan,  
Autonomous University of the  
State of Hidalgo, Carretera Apan-  
Calpulalpan, Km. 8., Chimalpa  
Tlalayote s/n, Hidalgo 43900,  
Mexico

Dear Colleagues,

Biological systems have a variable nature and complex behaviors, making formalizing their performance through mathematics tools an open problem for researchers. In addition, biological systems form networks for their survival, which makes these microcosms intelligent systems. In fact, there is no theoretical basis for any of the reaction mechanisms involved in biological systems proposed in the literature currently available, due to the complexity of the bio-reactions that occur in biological systems and to the exact stoichiometric relationship that allows for theoretically limiting the reaction rates. Therefore, models must be developed on an environmental conditions basis to depict the approximate phenomena under the expected biological systems conditions. Biological systems play a vital role in green industries, producing important chemical and biochemical compounds. In this system, living organisms, also known as microbes, are converted into marketable products. Finally, the application of biological systems control based on mathematical models is reflected in higher productivity, embracing new technologies in intelligent production and industrial growth.

Deadline for manuscript  
submissions:

**31 January 2025**





## 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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*Mathematics* Editorial Office  
MDPI, St. Alban-Anlage 66  
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