

# Open Journal of Modelling and Simulation



## **Journal Editorial Board**

ISSN: 2327-4018 (Print), 2327-4026 (Online) http://www.scirp.org/journal/ojmsi

#### Editor-in-Chief

**Prof. Bilal Chanane** King Fahd University of Petroleum & Minerals, Saudi Arabia

#### **Editorial Board**

Dr. Izhar Ahmad King Fahd University of Petroleum & Minerals, Saudi Arabia

Dr. Alessandro BazziNational Research Council of Italy, ItalyProf. Emilio Defez CandelUniversidad Politécnica de Valencia, Spain

**Dr. Todd Easton** Kansas State University, Afghanistan

Prof. Beih El-Sayed El-Desouky Mansoura University, Egypt

Dr. Jerome Feret Institute National de Recherce en Informatique et Automatique, France

**Dr. Shaojing Fu**National University of Defense Technology, China

Dr. Francisco GuijarroUniversidad Politécnica de Valencia, SpainProf. Mirsad HadzikadicUniversity of North Carolina at Charlotte, USAProf. Antonio Hervás JorgeUniversidad Politécnica de Valencia, Spain

Dr. Prakash Chand Jain Scientist DRDL Hyderabad, India
Prof. E. Stanley Lee Kansas State University, USA

Dr. Anibal Muñoz Loaiza Universidad del Quindío, Colombia

Dr. Ricardo López-Ruiz
 Dr. Gangfeng Ma
 Dr. Morteza Mohammadzaheri
 Dr. Md. Mamun Molla
 University of Adelaide, Australia
 North South University, Bangladesh

**Dr. Terence O'kane** Commonwealth Scientific and Industrial Research Organisation, Australia

**Dr. Tarek Ragab** University of Tabuk, Saudi Arabia

Dr. Beatriz RicarteUniversitat Politècnica de València, SpainDr. Gregorio RomeroTechnical University of Madrid, SpainDr. P. SanjeevikumarDublin Institute of Technology, India

**Dr. Sergio Serrano** University of Zaragoza, Spain

Dr. Santiago SilvestreUniversitat Politècnica de Cataluny, SpainDr. Yu SunOur Lady of the Lake University, USADr. Néstor ThomeUniversitat Politècnica de València, Spain

**Dr. Wilfred van der Vegte**Delft University of Technology, The Netherlands

**Dr. Hamed Yarmand** Massachusetts General Hospital, USA

**Dr. Yu Zeng** Duke University, USA



Volume 7 Number 2

ISSN Online: 2327-4026 ISSN Print: 2327-4018

**April 2019** 

# **Table of Contents**

	_
Stability and Optimal Control of Tuberculosis Spread with an Imperfect of Co-Infection with HIV	Vaccine in the Case
L. N. Nkamba, T. T. Manga, N. Sakamoto	97
Simulating the Health Impact of Particulate Emissions from Transport F Particle Deposition Model (MPPD)	uels Using Multipath
B. C. Mosonik, J. K. Kibet, S. M. Ngari	115
A Control Theoretical Model of Web Service Value Development	
A. S. White, D. Nielsen, M. Censlive	125

# Open Journal of Modelling and Simulation (OJMSi) Journal Information

#### **SUBSCRIPTIONS**

The *Open Journal of Modelling and Simulation* (Online at Scientific Research Publishing, <a href="www.SciRP.org">www.SciRP.org</a>) is published quarterly by Scientific Research Publishing, Inc., USA.

#### Subscription rates:

Print: \$39 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### **SERVICES**

#### Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

#### **COPYRIGHT**

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2019 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

http://creativecommons.org/licenses/by/4.0/

#### Copyright for individual papers of the journal:

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ojmsi@scirp.org

# Call for Papers





# **Open Journal of Modelling and Simulation**

ISSN: 2327-4018 (Print) ISSN: 2327-4026 (Online) http://www.scirp.org/journal/ojmsi

Open Journal of Modelling and Simulation (OJMSi) is an open access journal published quarterly. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in all aspects of modelling and simulation.

#### **Editorial Board**

Dr. Izhar Ahmad

Dr. Alessandro Bazzi

Prof. Emilio Defez Candel

Dr. Todd Easton

Prof. Beih El-Sayed El-Desouky

Dr. Jerome Feret

Dr. Shaojing Fu

Dr. Francisco Guijarro

Prof. Mirsad Hadzikadic

Prof. Antonio Hervás Jorge

Dr. Prakash Chand Jain

Prof. E. Stanley Lee

Dr. Anibal Muñoz Loaiza

Dr. Ricardo López-Ruiz

Dr. Gangfeng Ma

Dr. Morteza Mohammadzaheri

Dr. Md. Mamun Molla

Dr. Terence O'kane

Dr. Tarek Ragab

Dr. Beatriz Ricarte

Dr. Gregorio Romero

Dr. P. Sanjeevikumar

Dr. Sergio Serrano

Dr. Santiago Silvestre

Dr. Yu Sun

Dr. Néstor Thome

Dr. Wilfred van der Vegte

Dr. Hamed Yarmand

Dr. Yu Zeng

#### **Subject Coverage**

All manuscripts must be prepared in English, and are subject to a rigorous peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Aerospace Technology Simulation
- Aircraft Design Simulations
- Applications of Social and Economic Models
- Chemical Process Simulation
- Computational Intelligence
- Computer Science
- Constitutive Modelling of Materials
- Control Theory
- Dynamic Response of Mechanical Systems
- Dynamical Systems
- Finite Element/Computational Fluid Dynamics Simulation

- Many Agents Complex Systems
- Mathematical Biology
- Military Technology Simulation
- Nonlinear Processes
- Numerical Analysis
- Numerical Modelling
- •Rigid/Flexible Body Mechanisms Simulations
- Seismic Simulation of Civil Structures
- Simulation Modeling Theories and Methodologies
- Visual Simulation

We are also interested in: 1) Short reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book reviews—Comments and critiques.

### **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

#### Website and E-Mail

http://www.scirp.org/journal/ojmsi Email: ojmsi@scirp.org