

Tentative Outline

Special Thematic Issue for < Current Chinese Computer Science (CCCS)>

Operations Research/Management Science in Healthcare: New Methodologies and Applications

Guest Editor: Muhammet Gul

- **Scope of the Thematic Issue:** Healthcare stakeholders around the world are facing new challenges in responding to trends from effective usage of resources in health delivery to combating chronic and epidemic diseases. However, at the same time, there is an increasing trend on developing new methodologies and applications to improve healthcare service quality, to reduce costs and to make people more prosperous.

Operations Research (OR)/Management Science (MS) provides a broad collection of computational methodologies and approaches, and tools and techniques used to model and solve complex real-world problems in various areas of science and technology. At the same time, they have a close relation with data science in a mathematical manner. Concepts of new OR/MS have been recently become popular in the field of health care.

Healthcare area has various components such as hospitals and their crucial sub units (such as emergency room, inpatient unit, intensive care unit, outpatient clinic, laboratories, operating room and so on), home health care, public health, telemedicine. These are still open areas to be studied and improved by OR/MS.

This thematic issue will aim to bring together researchers and practitioners in Operations Research/Management Science especially those related to the topics of health services.

Keywords: Operations research; management science; healthcare; simulation; optimization; mathematical modeling

Subtopics:

The subtopics to be covered within this issue must be provided:

- Mathematical modelling in healthcare
- Optimization modelling in healthcare
- Simulation modelling in healthcare
- Fuzzy set-based modelling in healthcare
- Expert systems-based modelling in healthcare
- Computational intelligence modelling in healthcare
- Soft computing in healthcare
- Multi-criteria decision-making in healthcare
- Heuristics/metaheuristics approaches in healthcare
- Machine learning and deep learning in healthcare
- IOT, Healthcare 4.0
- Statistical forecasting in healthcare
- Project management in healthcare

- Quality management in healthcare
- Supply chain management in healthcare
- Queuing theory in healthcare

Tentative titles of the articles and list of contributors:

Potential contributors with their names, designations, addresses and email addresses are given in the following.

But, the final list and the titles of the articles may be changed according to the attracting potential contributors.

Muhammet Gul Munzur University, Turkey muhammetgul@munzur.edu.tr	Engin Pekel Hitit University, Turkey pekalc@hotmail.com	Felipe F Rodrigues Western University, Canada frodrig7@uwo.ca
Erkan Celik Munzur University, Turkey erkancelik@munzur.edu.tr	Muhammed Ordu Osmaniye K. Ata University, Turkey muhammedordu@osmaniye.edu.tr	Camila P. E. De Souza Western University, Canada camila.souza@uwo.ca
Suleyman Mete Gaziantep University, Turkey smete@gantep.edu.tr	Görkem Sarıyer Yasar University, Turkey gorkem.ataman@yasar.edu.tr	Rasha Kashef Ryerson University, Canada rkashef@ryerson.ca
Faruk Serin Munzur University, Turkey fserin@munzur.edu.tr	Ceren Öcal Taşar Yaşar University, Turkey ceren.ocal@gmail.com	Miguel Angel Ortiz BarriosUniversidad de la Costa – CUC, Colombia mortiz1@cuc.edu.co
Melih Yucesan Munzur University, Turkey melihyucesan@munzur.edu.tr	Zahra Shirazi Western University, Canada Zaghahos@uwo.ca	Melike Erdoğan Düzce University, Turkey melikeerdogan@duzce.edu.tr

Schedule:

- ✧ Manuscript submission deadline: August 30, 2020
- ✧ Peer Review Due: September 30, 2020
- ✧ Revision Due: December 30, 2020
- ✧ Announcement of acceptance by the Guest Editors: January 20, 2021
- ✧ Final manuscripts due: February 20, 2021

Contacts:

Guest Editor

Affiliation: Department of Industrial Engineering, Munzur University, TURKEY

Email: muhammetgul@munzur.edu.tr