Announcement and calls for papers for the special issue of Journal Integrated Design and Process Science on:

Advances in Machine Learning in Healthcare Systems

Guest editors:

Dr. Ramaraju Rudraraju
Kirklin Institute for Research in Surgical Outcomes
Department of Surgery
University of Alabama at Birmingham, USA
ramaraju@uab.edu

Dr. Shrirang Kulkarni
Department of Computer Science and Engineering
National Institute of Engineering, India
sakulkarni@nie.ac.in

Dr. Varadraj Gurupur
Health Management and Informatics
University of Central Florida, USA
varadraj.gurupur@ucf.edu

Dr. Thomas Wan
College of Health and Public Affairs
University of Central Florida, USA
Thomas.Wan@ucf.edu

Handling editor-in-chief
Prof. Dr. Kyoung-yun 'Joseph' Kim
Computational Intelligence and Design Informatics Laboratory
Industrial and Systems Engineering
Wayne State University, USA
kykim@wayne.edu

Machine learning is opening up a new frontier in healthcare. For decades healthcare data was primarily used for billing and administration rather than providing insights for improving patient care. Machine learning is causing a paradigm shift in healthcare informatics by enabling interpretation and prediction from medical data in formats including numeric, categorical, textual, image and genomic data. Machine learning is being used in healthcare systems to solve several important challenges including: 1) pre-processing large datasets; 2) deriving predictions from high dimensional data; 3) visualizing/interpreting results; and 4) summarizing clinical notes. This special issue aims to publish articles covering recent advances in healthcare systems data analyses using machine learning.

The list of topics:
The topics considered for this special issue include but are not limited to:
- use of machine learning for imputing data
- building prediction models

- determining variable importance
- explaining predictions
- developing model validation strategies
- modeling survival outcomes
- model validation strategies
- generating analytical reports
- cost-effectiveness analysis
- deriving clinical insights
- summarizing clinical notes using natural language processing

Instruction for submissions:

- All submissions are supposed to address one of the topics mentioned above, or other closely related research topic, and to provide scientifically novel, rigorously scrutinized, and useful-for practice contribution.
- All submissions will be anonymously reviewed by at least three reviewers. The selection for publication would be made on the basis of these reviews and the academic/industrial value of the contribution.
- By submitting their manuscripts to JIDPS, authors agree to the publishing principles of SDPS and to its personal data handling and privacy policy.
- Information about the format and style required for JIDPS manuscripts, as well as about submission, can be found in the manuscript template file.
- Queries and information about submissions for the AML-HS special issue should be addressed to the co-guest editors, and not to the editor in chief.
- Manuscript for review and revised articles for publication should be submitted online through the journal's submission handling system at: https://jidps.rndsphere.com
- New users should first create a user account on the submission handling system.

Important dates:

- Submission deadline for full length manuscripts (on-line system): 31 August 2021
- Decisions based on reviews and notification due: 31 October 2021
- Submission deadline for first revised manuscripts: 31 January 2022
- Decisions based on reviews and notification due: 31 March 2022
- Submission deadline for second revised papers: 15 April 2022
- Proofed final version of manuscripts due: 31 May 2022
- Special Issue published: 15 September 2022

Useful links:

- https://www.iospress.nl/journal/journal-of-integrated-design-process-science/
- https://www.iospress.nl/privacy-policy/
- https://www.iospress.nl/service/authors/author-copyright-agreement/
- https://www.iospress.nl/wp-content/uploads/2017/11/authorandeditortoolkit.pdf