



## ICANTCI-2024

# 1<sup>st</sup> International Conference on Advanced Network Technologies and Computational Intelligence

*Organized by*

*Department of Computer Applications, Chitkara University, Punjab, India in association with City University, Malaysia and University of Wollongong in Dubai, UAE*

on

**April 5-6, 2024**

\*\*\*\*\* **CALL FOR PAPERS** \*\*\*\*\*

### **SPECIAL SESSION ON**

### **ADVANCES IN MACHINE LEARNING BASED OPTIMIZATION ALGORITHMS FOR HEALTHCARE**

#### **SESSION ORGANIZERS:**

**1. Dr. R. John Martin (Session Chair)**

School of Computer Science and Information Technology  
Jazan University KSA,  
[jmartin@jazanu.edu.sa](mailto:jmartin@jazanu.edu.sa)

**2. Dr. S. Kanimozhi**

School of Computer Science and Engineering (SCOPE)  
Vellore Institute of Technology, Chennai Campus,  
TamilNadu, India  
[skanimozhi@vit.ac.in](mailto:skanimozhi@vit.ac.in)

**3. Dr. Gamal Abdel Nassir Mohamed**

Department of Computing  
Muscat College (Affiliated with SQA & UoS - UK and UMP - Malaysia), Oman  
[gamal@muscatcollege.edu.om](mailto:gamal@muscatcollege.edu.om)

#### **SESSION DESCRIPTION:**

The steadily increasing volume of healthcare data, along with the integration of many areas of expertise in the healthcare domain, has taken healthcare-related research to new heights in precise and personalized healthcare. This trend also creates an unprecedented chance and high level of assurance for tackling many

crucial challenges in medical and healthcare systems, as well as engineering applications of artificial intelligence (AI). However, such assurance is highly dependent on researchers' ability to discover meaningful patterns, identify mechanisms underlying fragmented and heterogeneous data sets, and transform this data into meaningful results.

In recent years, significant progress has been made in the design and development of systems that use AI for applications in bioinformatics, healthcare, targeted drug design, robotic surgery, wearable devices to collect biological data, and so on. However, the generally accepted scientific perspective is that much more can be done. This research area is developing at an exponential rate, and this trend is expected to continue for at least another decade or more. As a result, there is still opportunity to advance and improve existing tools while developing new ones for fostering health sciences.

The primary objective of this special issue is to examine and develop the most recent advances in AI, ML, data science, and computational optimization in healthcare and medical systems. It provides a scientific arena for researchers who want to share ideas and novel research findings based on machine-based optimization methods with an application to healthcare. We invite scholars and experts from across the world to submit high-quality creative research papers and critical review articles on the areas listed below.

### **RECOMMENDED TOPICS:**

Topics to be discussed in this special session include (but are not limited to) the following:

- Handling uncertainty in ML for Healthcare
- Advances in ML algorithms for Healthcare Image/Signal processing
- Advances in Predictive algorithms for Healthcare data analytics
- Advances in model building and generalization for Healthcare data analytics
- Multivariate regression analysis and healthcare
- Reinforcement learning in healthcare
- Ensemble techniques in ML for Healthcare
- Deep Learning methods for Healthcare data

### **SUBMISSION PROCEDURE:**

Researchers and practitioners are invited to submit papers for this special theme session on '**Advances in Machine Learning based Optimization Algorithms for Healthcare**' *on or before* [November 15, 2023].

All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at <https://ca.chitkara.edu.in/icantci2024/#>. All submitted papers will be reviewed on a double-blind, peer review basis.

**NOTE:** While submitting paper in this special session, please specify [ADVANCES IN MACHINE LEARNING BASED OPTIMIZATION ALGORITHMS FOR HEALTHCARE] at the top (above paper title) of the first page of your paper as a header.

\* \* \* \* \*