

CALL FOR PAPERS

Medical informatics is a multidisciplinary field that has become synonymous with the advancements and big data challenges. The huge amounts of data generated by clinical IoT platforms and related to networking issues, graphical interfaces, data mining, machine and deep learning, intelligent decision support systems, and specialized programming languages are too complex and voluminous to be processed and analyzed by traditional methods. There is a wide range of techniques and frameworks that can be exploited to address these challenges towards the improvement of patient's safety, the enhancement of care outcomes, the promotion of a patient-centered care, the facilitation of translational research, the activation of precision medicine, and the improvement of education and skills in health informatics. The aforementioned technological frameworks could contribute significantly in the extraction of useful information for data analysis and decision-making purposes.

The aim of this special issue is to examine the applicability of novel techniques and especially the accuracy of the neural network methodologies and genetic algorithms in multivariate analysis of clinical data. The current use of neural networks in image analysis, signal processing, and laboratory medicine is expected to be highlighted. Research and Review articles which describe the current state of the art relating to this research area are encouraged to be submitted.

Potential topics include but are not limited to the following:

- ▶ Machine and deep learning approaches for health data
- ▶ Data mining and knowledge discovery in healthcare
- ▶ Clinical decision support systems
- ▶ Applications of the genetic algorithm in disease screening, diagnosis, and treatment planning
- ▶ Neuro-fuzzy system based on genetic algorithm for medical diagnosis and therapy support systems
- ▶ Applications of AI in health care
- ▶ Applications of artificial neural networks in medical science
- ▶ Electronic medical record and missing data
- ▶ Network and disease modelling (using administrative data)
- ▶ Health analytics and visualization

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/complexity/cmin/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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