Artificial Intelligence Explainability (XAI) and Interpretability: Exploring the Potential of XAI in Fault Diagnosis and Cyber-Physical Systems

Guest Editors:

Dr. John Oyekan

Dr. Christopher Turner

Prof. Dr. Yuchun Xu

Dr. Ming Zhang

Deadline for manuscript submissions:
closed (30 September 2022)

Message from the Guest Editors

This Special Issue invites papers on the rapidly growing field of explainable AI (XAI) theories and methods, as applied to fault diagnosis of systems such as traditional manufacturing systems, smart cyber-physical systems, and remote condition monitoring of equipment to mention a few. We invite you to contribute to this issue by submitting both case studies and research articles, we are open to papers that address (but are not limited to) the following keywords:

- Application of fuzzy logic theory to aid understanding of AI decisions
- New explainable AI (XAI) concepts
- Novel cognitive architectures
- Natural language processing
- Equipment condition monitoring and maintenance
- Human in the loop systems
- XAI and Industry 4.0 / IoT
- Theories, analysis, and visualization of interpretable machine learning/deep learning method
- Industrial applications of interpretable machine learning/deep learning method
- Bayesian networks and probabilistic graphical models
- Knowledge representation and reasoning
- Reasoning under uncertainty

mdpi.com/si/79409

SpecialIssue

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

Author Benefits

Open Access : free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.
Journal Rank: JCR - Q2 (*Chemistry, Analytical*) / CiteScore - Q1 (Instrumentation)

Contact Us