

CALL FOR PAPERS - SPECIAL SESSION

“E-health monitoring system: AI applied to anomaly detection”

for MIM'22

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Session description

This special session focuses on the challenge of anomaly detection for e-health monitoring systems. Anomaly detection (also known as outlier/novelty detection) identifies instances that are unusual or significantly different from the mainstream. The focus of e-health monitoring systems is to leverage advances in AI and ML to resolve process-related defects in manufacturing, signal-based healthcare devices, and data-driven multivariate time sequences.

This special issue invites researchers and practitioners to present papers on current advances and related implementations based on AI and ML to improve decision-making for e-health-related topics, industry, technology, and ethical issues in the health sector.

The ultimate goal of AI and ML in e-health is to explore opportunities to reduce machine bias, computational time, improve metrics for healthcare monitoring and oversight decision-making, or provide new insights into data preprocessing or algorithms that address anomaly detection problems.

The topics of interest include, but are not limited to:

- AI/ML for univariate and/or multivariate time-series analysis
- Application of neural networks and deep learning in manufacturing process management, healthcare and data-driven multivariate time sequences
- AI-based clinical decision support system
- AI/ML-based screening systems
- AI/ML for oncology, neurology, and cardiology-oriented time-series and image analysis
- Machine learning bias in process control