

Special Issue

Machine Learning for Predictive Modeling and Optimization of Manufacturing Processes

Message from the Guest Editors

This Special Issue invites contributions that explore innovative machine learning methodologies, optimization frameworks, and real-world implementations specifically targeted at manufacturing applications. Topics of interest include but are not limited to supervised and unsupervised learning, deep learning architectures, reinforcement learning, ensemble models, feature engineering, and explainable AI as applied to manufacturing systems. We particularly encourage submissions addressing challenges such as process parameter prediction, defect detection, process control, energy optimization, predictive maintenance, and smart manufacturing. Contributions related to data preprocessing, model interpretability, and ML-integrated decision support systems tailored to manufacturing are also welcome. Through this Special Issue, we aim to promote interdisciplinary collaboration and foster novel insights into how ML can revolutionize manufacturing processes. We welcome original research articles, comprehensive reviews, and practical case studies that contribute to this rapidly evolving field.

Guest Editors

Dr. Atiq Ur Rehman

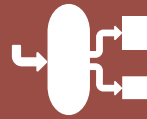
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