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Practical Applications of Data Analysis, Classification and Anomaly Detection

J.UCS Special Issue

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In this Special Issue of the prestigious Journal of Universal Computing Science (J.UCS) we present the collection of high-quality papers concerning theoretical advances and practical solutions for data analysis, classification and anomaly detection.

The selected papers show progress in solving current challenges of AI (Artificial Intelligence) systems, data science and pattern recognition. The collected papers nicely show how theoretical advances can be used in practical problems and context.

Milan Sečujski, Darko Pekar, Siniša Suzić, Anton Smirnov and Tijana Nosek present a neural network-based architecture capable of producing synthesized speech in a particular voice and speaking style by exploiting a limited amount of target speaker/style training data.

Andrzej Bukała, Michał Koziarski, Bogusław Cyganek, Osman Nuri Koç experimentally investigate the impact of noise, blur and occlusion on the performance of classification using Histogram of Oriented Gradients features with different classification approaches.

Kamil Maliński and Krzysztof Okarma apply image processing techniques and shape features to classify electronic elements.

Kheir Eddine Daouadi, Rim Zghal Rebaï and Ikram Amous present a tool to classify twitter accounts as humans or bots with the help of a moderate feature set and supervised learning.

Tomasz Andrysiak and Łukasz Saganowski investigate anomaly detection in networks to control street lights in a smart city, by time series analysis.

Sławomir Bujnowski, Tomasz Marciniak, Beata Marciniak and Zbigniew Lutowski consider telecommunication aspects and analyze the possibility to construct optimal third degree Reference Graphs.

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