

Invited session 1: Complex data processing for monitoring, diagnosis, and control

Code: mn57w

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Keywords: Signal Processing; Robotics; Control Systems Design

Description:

The session aims to underline the intrinsic connection between complex data processing, on one hand, and two important actions in different fields: monitoring and control, on the other hand. The applications of complex images (like texture and fractals), time series, and neural networks in many domains (industry, medicine, agriculture, environment, transportation, and so on) needs interdisciplinary knowledge and effectively solve many encountered problems. This special session at the 24th International Conference on System Theory, Control and Computing (ICSTCC 2020) provides a forum for researchers and practitioners to present and discuss advances in the research and development of intelligent systems for complex data processing and interpretation based on efficient feature selection and neural networks in the field of monitoring, control and diagnosis. All session papers need to have a high scientific level and will be selected based on their relevance to the session topics. The included topics are the following (but not limited): Criteria for feature selection, Image processing for real time control, Traffic control based on images, Medical diagnostic systems based on complex data processing, Assistive technologies based on data processing, UAV and robot guidance based on image interpretation, Quality control based on image processing, Texture analysis, Parallel processing of data, Neural networks for data classification and prediction. Papers submitted for this invited session will be treated in the same manner as the regular papers.