ARCAI 2024 Special Session "Analysis, Modeling and Control with Complex Data"

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Call for Papers:

With the development of information science and technology, many practical processes such as those relevant to the industry, transportation, electronics, metallurgy, and logistics, have undergone significant changes. These processes generate and store huge amounts of process data at every time instant of every day, containing all valuable state information of process operations and equipment. Using those data, both on-line and off-line, to directly predict the trend, evaluate performance and make decisions for complex system, would be very significant, especially under the lack of accurate supervision. However, the complex characteristics of those data, such as high dimension, nonlinearity, heterogeneity, and uncertainty, lead to the ineffectiveness of the existing analysis, modeling and control algorithms to deal with. This special issue is focusing on the latest development, trends, and novel techniques of analysis, modeling and control algorithms in decision-making systems and their applications. The principal topics planned to be covered are as follows, but are not limited to:

- Data mining
- Pattern recognition
- Data modeling and optimization
- Data driven control
- Decision making system
- Knowledge discovery
- Theory for security and cybernetics
- Applications related to the above topics

Accepted and presented papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements and indexed by EI Compendex and Scopus. Selected papers will be invited to SCI Journal Special Issues.