World Academy of Science, Engineering and Technology
International Journal of Computer and Systems Engineering
Vol:16, No:10, 2022

Identification of the Relationship Between Signals in Continuous Monitoring of Production Systems

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Abstract : Understanding the dependencies between the input signal, that controls the production system and signals, that capture its output, is of a great importance in intelligent systems. The method for identification of the relationship between signals in continuous monitoring of production systems is described in the paper. The method discovers the correlation between changes in the states derived from input signals and resulting changes in the states of output signals of the production system. The method is able to handle system inertia, which determines the time shift of the relationship between the input and output.

Keywords : manufacturing operation management, signal relationship, continuous monitoring, production systems
Conference Title : ICISDC 2022 : International Conference on Intelligent Systems Design and Computing
Conference Location : Dubai, United Arab Emirates
Conference Dates : October 13-14, 2022