

A Method for Quantitative Assessment of the Dependencies between Input Signals and Output Indicators in Production Systems

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Abstract : Knowing the degree of dependencies between the sets of input signals and selected sets of indicators that measure a production system's effectiveness is of great importance in the industry. This paper introduces the SELM method that enables the selection of sets of input signals, which affects the most the selected subset of indicators that measures the effectiveness of a production system. For defined set of output indicators, the method quantifies the impact of input signals that are gathered in the continuous monitoring production system.

Keywords : manufacturing operation management, signal relationship, continuous monitoring, production systems

Conference Title : ICICC 2022 : International Conference on Intelligent Computing and Control

Conference Location : Lisbon, Portugal

Conference Dates : October 27-28, 2022