Editor's Note

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I am delighted to publish the Thematic Issue - Semantic Data Engineering: Methods, Applications and Practice of the Current Analysis on Instrumentation and Control Journal (CAIC). At the core of the completed issue and selected articles are current tools, methods, algorithms, and approaches that focus on how:

- Process mining can be applied to improve the informative value of various process domain data.
- Describe how improved process models can be derived from the large volume of event data logs within any process knowledge base.
- Use of semantic technologies and representation of the derived models to enrich the results of the process mining, thus, semantic data engineering.
- Use of ontologies with effective semantic reasoning to lift process mining analysis from the syntactic level to a much more conceptual level.

The research and works reported in the selected articles have been reviewed by experts within the field and scope of the Journal. Therefore, without a doubt, I believe the articles are not just appropriate for the Journal but for the readers and the wider scientific community in general. In theory, the issue combines a complete list and critical summary of relevant studies with an in-depth analysis of not only individual contributions but also the wider concept of applying the semantic data engineering methods in practice particularly to guide and inform its use and impact through the centuries.

Indeed, by tackling the motivations and scope of this issue, the selected articles have proved to deliver means by which the semantic data engineering methods and its main application in real-time contributes to the body of knowledge in the current literature. Clearly, each of the presented papers has addressed and covers at least a minimum of one of the following application areas:

- Semantically motivated synchronization of event logs formats for multiple data processing.
- Ontology-driven search for explorative analysis of big data analysis and its executions or application in real-time.
- Techniques for annotating unlabelled activity sequences using business process model notations and ontology schema/vocabularies.
- Use of semantics tools to manage perspectives of process mining, algorithmic control or definitions, and methods towards discovery and enhancement of process model analysis.
- Useful strategies towards the development of process mining algorithms that are more intelligent, predictive and robotically adaptive.
- Importance of semantics process mining to augment information values of data about any given process domains: Case study applications.

Predominantly, this collection of state-of-the-art literature particularly as it concern designing of novel methods, applications and practice within the semantic data engineering will likely prove of special interest to many of the readers, enabling future research and encouraging scholarly self-awareness. Some of the expected audience or readers not to mention but a few are the - Professionals, Software Engineers, Application Developers, Process Analysts, IT experts, Business Project Managers, Research and Higher Institutions, Academics and Students, and the scientific community in diaspora.

The editor would like to thank the reviewers for their generous comments on the different manuscripts that have ensured the technical quality and authenticity of the selected articles.

I look forward to seeing and receiving your future contributions on the upcoming issues. In the meantime, let me take this opportunity to thank everyone that has contributed to the successful completion of this issue particularly the authors for their wonderful research and contributions, and most importantly for realizing that "writing is, in fact, its own reward".

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