

Special Session on
Temporal Data Mining: Advanced Machine Learning, Computational
Intelligence, and Their Applications to Temporal Data
in conjunction with
23rd International Conference on Intelligent Systems Design and Applications
December 11-13, 2023
Website: <http://www.mirlabs.org/isda23>
Hybrid Mode – Online & Offline
Onsite Venues: <http://mirlabs.org/isda23/venue2.php>

Objectives and Scope

Thanks to the potential of the Internet of Things and Industry 4.0, more and more data are generated and collected. The concept of time plays a crucial role here, as every data value has a time value associated. Temporal data mining is a recent research agenda to extract non-trivial, implicit, and previously unknown information from large temporal data sets. This special session aims to serve as a forum to exchange knowledge and discuss recent and new trends regarding intersections between advanced machine learning and computational intelligence on temporal data. The main objective of this session is to bring together industry experts and researchers to present current challenges in temporal data mining and propose new advances. The special session is open to high-quality submissions related to the usage of advanced machine-learning methods and computational intelligence. Original research studies, real-world and innovative applications are also welcome.

Subtopics

The topics include, but are not limited to:

- Intelligent systems on temporal data
- Machine learning methods on temporal data
- Temporal data processing
- Computational intelligence methods on temporal data
- Temporal data mining methods
- Challenges and future directions of time series
- Anomaly detection in time series data
- Predictive maintenance models
- Remaining useful life methods and applications
- Temporal data applications (healthcare, IoT, industry, etc.)

Paper publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (<https://www.springer.com/series/15179>)
- Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago
- Paper maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: <https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>
- Submission Link: <http://www.mirlabs.org/isda23/submission.php>

Important Dates

Paper submission due: **September 30, 2023**

Notification of paper acceptance: **October 31, 2023**

Registration and Final manuscript due: **November 10, 2023**

Conference Date: **December 13-15, 2023**

Special Session Chair(

- **José María Luna** is an associate professor at the University of Córdoba (Spain). He has published more than 40 top-ranked journal papers and dozens of international scientific conference articles. His research aims are related to machine learning and computational intelligence, and their application to real problems. Dr Luna has participated in two research projects related to temporal data and predictive maintenance on trucks. He is also the author of three books published in Springer and related to topics such as the extraction of patterns from data and periodic pattern mining.

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- **Sebastián Ventura** is a full professor at the University of Córdoba (Spain). He has published about 150 top-ranked journal papers and close to 100 articles at international scientific conferences. Dr. Ventura is the head of the KDIS research group and has advised dozens of theses. His research aims are related to knowledge discovery and applying artificial intelligence techniques to real-world problems. Dr Ventura has been the principal investigator of more than fifteen research projects, some of them related to industry and the design of new models for remaining useful life and predictive maintenance on trucks.

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