ICDAM-2026

7th International Conference on Data Analysis and Management

Organized by London Metropolitan University, London, UK (Venue Partner)
in association with
WSG University, Bydgoszcz, Poland, Europe
Portalegre Polytechnic University, Portugal, Europe
SGGW Management Institute, Poland, Portugal

Date: 12th – 14th June 2026

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CALL FOR PAPERS

SPECIAL SESSION ON

Neuro-symbolic data analytics framework for self-service and intelligent network management

SESSION ORGANIZERS

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EDITORIAL BOARD (Optional)

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SESSION DESCRIPTION

[INSERT THE SCOPE OF THE SESSION IN A FEW LINES. Clearly describe the research focus, objectives, and expected contributions.]

For intelligent communications networks to work properly (5G/6G, IoT, SDN/NFV, edge-cloud infrastructures), we need to develop autonomous, self-service, and cognitively adaptable network management solutions. This special session will feature Neuro-Symbolic Data Analytics frameworks that combine deep learning models with symbolic reasoning, knowledge graphs, and rule-based systems to produce explainable, adaptive, and policy-oriented network intelligence.

This session's goal is to explore new architectural, algorithmic, and system-level examples of how we can use both neural perception functionality and logical reasoning for automated decisions, detecting anomalous behavior within a network, optimizing traffic flow, conducting root-cause analyses of problems experienced by the network, and providing intent-based orchestration capabilities to enable automation in a distributed environment. Contributing authors will create a more advanced form of explainable AI (XAI), automate according to levels of trust, and use greater scalability in their analytic capabilities for next-generation intelligent networks.

RECOMMENDED TOPICS

Autonomous network management can be accomplished by using different types of models and data, such as:

Neural-symbolic architecture

Knowledge graphs and ontological-based network intelligence

Explainable AI (XAI) network analytics and automated decision making

Intent-based networking with hybrid AI approaches

Self-healing or self-optimizing networks

Deep Learning and symbolic reasoning for SDN/NFV

Reinforcement Learning with logical constraints for resource management

AI Based Fault Diagnosis and Root Cause Analysis

Computationally efficient, collaborative edge/cloud intelligent orchestration

Trust- and Policy-Based Intelligent Network Management

Generative AI and large language models for network operations

Digital Twin for Intelligent Network Modeling and Optimization

SUBMISSION PROCEDURE

Researchers and practitioners are invited to submit papers for this special theme session on

[Neuro-symbolic data analytics framework for self-service and intelligent network management] on or before [12-April,2026]. All submissions must be original and must not be under review by another publication. Interested authors should consult the conference guidelines for manuscript submission at https://icdam-conf.com/downloads. All submitted papers will be reviewed on a double-blind peer-review basis.
NOTE: While submitting a paper to this special session, please specify [SESSION NAME] at the top (above the paper title) of the first page of your paper.

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