

Knowledge Graphs and Model-driven Systems Engineering



https://www.omilab.org/activities/events/iswc2026_kgmdse/

Monday, 26th of October 2026 - 1st Session
Sala Cigno, The Nicolaus Hotel, Bari, Italy

Session chair: Alexander Völz

14:10-14:25 Opening

Chairs' Welcome Message, Robert Buchmann

14:25-14:50 Full paper

Translating OWL 2 ontologies and SHACL shapes into UML/OCL models

Mauro Dalle Lucca Tosi, Fitash UI Haq and Jordi Cabot

14:50-15:15 Full paper

Democratizing knowledge graph engineering through domain-specific visual modeling: A tool paper

Andrei Chiş and Ana-Maria Ghiran

15:15-15:40 Full paper

Natural language querying of RDF-based process models through an MCP interaction using Codex and GraphDB tools

Damaris-Naomi Dolha

15:40-15:55 Short paper

Towards model-based agent definition with ontologies: A systems engineering approach

Sangeeth saagar Ponnusamy and Carsten Strobel

15:55-16:20: Coffee break

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Monday, 26th of October 2026 - 2nd Session
Sala Cigno, The Nicolaus Hotel, Bari, Italy

Session chair: Ana-Maria Ghiran

16:20-16:45 Full paper

Knowledge graph-governed enrichment for adaptive conceptual modeling environments: A Scene2Model platform extension

Alexander Völz and Wilfrid Utz

16:45-17:10 Full paper

Reliable enterprise LLM systems for high-stakes domains: A supervised deterministic retrieval framework with knowledge graphs

Mohammad Seidpisheh and Stefan Berlik

17:10-17:25 Short paper

Toward model-driven automated code review: extracting quality intent knowledge from review comments and accepted code changes

Rikuto Sasaki, Tomoya Hirata and Kazuhiro Takeuchi

17:25-17:40 Short paper

From user intents to context graphs: Ontology-mediated intent-based data operations in the computing continuum

Lorenzo Balzotti, Donatella Firmani, Francesco Leotta, Andrea Piermartini, Jacopo Rossi, Verena Pietsch, Valerio Frascolla, Hui Song, Dumitru Roman, Rustem Dautov, Ioan Toma, Hyunwhan Joe, Hong-Gee Kim and Alexandre Ulisses

17:40-17:55 Short paper

Knowledge Graphs for Design of Experiments (DoE) for coatings research

Arwinder Singh, Jakub Kubecka, Kim Dam-Johansen and Jochen Dreyer

17:55-18:10 Short paper

Signal search assistant for aerospace V&V: A multi-agent hybrid Graph RAG approach

Sangeeth saagar Ponnusamy, Carsten Strobel and Alain Kerbrat

18:10 Closing remarks

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