

Call for Papers 10th AI4KMES (Artificial Intelligence for Knowledge Management, Energy and Sustainability), supported by IFIP WG 12.6 AI for Knowledge Management and IFIP TC12.11 AI for Energy and Sustainability

Co-located with IJCAI 23, Cap Town, South Africa

The first AI4KM was organized on ECAI 2012, the second on Fedcsis 2014 in Warsaw, the third took place @IJCAI 2015 in Buenos Aires, Argentina, 4th @IJCAI 16 in New York, 5th @IJCAI 17, Melbourne, 6th @ IJCAI 18 in Stockholm, 7th @IJCAI 19, Macao, 8th @IJCAI 20, Yokohama and 9th @IJCAI 21, Montreal. The last joined the common interest of WG 12.6 and recently. created WG 12.11 AI for Energy and Sustainability.

Format: One day (or two half days). Program includes invited talks, presentations, discussion, final discussion and plans for future.

Scope and Objectives

Knowledge management is a large multidisciplinary field having its roots in Management and Artificial Intelligence. Knowledge is one of intangible capitals that influence the performance of organizations and their capacity to innovate. Since the beginning of the KM movement in the early nineties, companies and non-profit organizations have been experimented various approaches. AI has been brought the way of thinking, knowledge modelling, knowledge processing, problem solving, optimization and decision support techniques. Knowledge is vital for successful innovation, facing environmental challenges, in smart cities, education and resource management, among others.

Knowledge Management principles are also applied to energy life cycle, optimization, and combination of renewable energies for sustainable powering and heating. Raising prices of natural gas drives growth in renewable energies. Industries like the steel, glass, chemical manufacturing sites are they are looking for AI based control systems for the Grid connected micro-grids. Circular energy explores heat generated by data centers and the waste steam for a sustainable environment as like creating fish farms or agricultural sites, or recreating cooling water which are additional processes that demand AI-based scheduling using meteorological data. Clean energy solutions require evolution of manufacturing processes and holistic approach supported by rigorous analytics, high quality data and the recognition of infrastructure dependencies. This workshop focuses on the innovation for the sustainable energy and overall sustainability expressed by 17 UN goals.

The objective of this multidisciplinary session is to gather both researchers and practitioners to discuss methodological, technical, organizational and environmental aspects of AI used for knowledge management in various field and to share the feedback on KM applications using AI.

Researches and practitioners are invited to submit their recent advances in methodologies, models and tools for managing knowledge in organizations and to discuss experiences in knowledge management and innovation. Let it be the development of non-convex, nonlinear problem solutions or a painting game played to find out gaps in global security used for knowledge management.

The conference topics include (but are not limited to):

conceptual modelling, reasoning methods, knowledge capitalization, knowledge discovery in data and multimedia documents, effective information and knowledge search, decision support systems, problem solving, optimisation of various resources, managing of best practice, risk management, simulation, learning systems including serious games, human-machine interfaces, Knowledge in social networks, distributed knowledge, Knowledge Management for design, creativity enhancing systems, support of innovation and eco-innovation process innovation and eco-innovation process, intelligent assistant of knowledge cultivators. The applications to innovation and eco-activities, AI applications supporting sustainable development are very welcome.

This conference form will be:

- Presentations of peer-reviewed papers, including discussions
- Final discussion on needs and challenges for the future

Paper Submission and Publication

- Authors should submit papers in Springer format as PDF on easychair 10th AI4KMES

<https://easychair.org/my/conference?conf=10thai4kmes>

or send to eunika.mercier-laurent@univ-reims.fr

- Accepted and presented papers will be published in IJCAI proceedings –electronic)
- Extended versions of selected papers presented during the conference will be published as Springer AICT series.

Important Dates

- Paper submission deadline **April 15th, 2023**
- Notification of acceptance/rejection: May15th, 2023
- Camera-ready version deadline: June 15th, 2023
- Conference August 19-25, 2023 Cap Town, South Africa

Organizing Committee:

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Hanlie Smuts hanlie.smuts@up.ac.za

Associate Professor in the Department of Informatics at the University of Pretoria since 2017. Her current research focuses on information systems and the organisation, with particular emphasis on digital transformation, disruptive technologies (4th Industrial Revolution) and the management of big data and knowledge. as well as collaboration between human and machine knowledge (artificial intelligence and machine learning) for knowledge-related work.

Elize Ehlers, Professor at the University of Johannesburg, South Africa, emehlers@uj.ac.za
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