

Call for Papers

[Journal of Information & Knowledge - Elsevier](#)

Special Issue: Knowledge engineering and management applied to sustainability & innovation

SCOPE AND OBJECTIVES

Innovation needs knowledge to succeed and generates various impacts including environmental. Many research works have been done in separate disciplines, such as design and eco-design, manufacturing, logistics, ecology, economy, artificial intelligence, knowledge management, complex systems and some others.

The consideration of environmental issues in product/service development can modify the whole process: objectives, outputs, resources, processes and performance indicators of a company. Sustainable design and production considering renewable materials, recycling, energy optimization and design for transition connected with economic and social objectives (implication of stakeholders, sharing knowledge, considering cultural and social aspect, etc.) are more or less considered in proactive or prescriptive way. These approaches lead to develop innovative solutions (circular economy, hybrid energy production, etc.). We can note that sustainable production and consumption join the environmental innovation logic allowing reducing material, energy and emissions impact in the whole life cycle of the product or integration sustainable business models (product service system, design for sustainable social innovation, etc). Even some criteria are integrated for sustainability but the application of these criteria still no common and not evident in industries.

A large number of works from various disciplines point out the need for managing complex and multidisciplinary knowledge related to sustainability and deep understanding of the relationships between all contributing components to sustainability study. Noting also works focus on transforming this knowledge into economic and social values and learning sustainable behaviors and culture. Knowledge engineering and management approaches and techniques have been successfully applied for design, manufacturing, medicine, crisis management and many others. The complexity of these domain guides the definition of new paradigms to structure and use knowledge especially on innovation. Several knowledge management methods have been proposed and applied to enhance organizational innovation, which is consider as a most important process in companies.

The objective of this Special Issue is to gather contributions from both researchers and practitioners to discuss methodological, technical and organizational aspects, feedback from application of knowledge engineering and management techniques to sustainability and successful innovation. Researchers and practitioners are invited to propose recent advances in methodologies, models and tools for managing knowledge in organizations and to discuss experiences. Papers are welcomed in any research area concerning sustainability, eco-design, knowledge engineering and management, innovation, artificial intelligence, information systems, and the knowledge economy. Target applications of this research and real world practice case studies include the following: industry, medicine, biology, design, manufacturing, logistics, education, telecommunications, automotive, aeronautics and space, tourism, social, etc.

Topics covered: Knowledge engineering and management, sustainability and innovation
(non exhaustive list)

- Knowledge engineering and management methods, techniques and tools
- Design, manufacturing & logistics characterization
- Eco-innovation systems, process, support and applications
- Renewable energies
- Collective and Collaborative Intelligence
- Knowledge modeling and visualization methods and tools
- Collection and processing of Best Practices
- Knowledge Authoring & Knowledge Markup

- Web2.0 and the Semantic Web
- Provenance, Reliability and Trust
- Consistency, Coherence and validation of multiple knowledge sources
- Information and knowledge sharing systems and applications
- Learning systems: education and Training systems
- Creativity enhancing systems
- Decision making support systems and tools
- Economic factors and characterization
- Human factors and social computing
- Knowledge discovery: Datamining, Textmining, ImageMining, Deep learning
- IoT and mobile applications
- Intelligent Platforms for e-services and e-business
- Applications, Industry 4.0, energy, transportation, etc.
- Complex systems and 4P-factory

IMPORTANT DATES

Paper Submissions: 30th November, 2017

Acceptance Notification: 30th January, 2018

Second round (if needed): 28th February, 2018

Final version due: 30th March, 2018

Editors

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PAPER SUBMISSION

Authors are invited to submit original and unpublished research works on the above or other topics related to knowledge engineering and management for sustainability and Innovation. Submitted papers must not have been published or simultaneously submitted elsewhere.

SUBMISSION GUIDELINES

Full papers should be submitted by Email Word attachment to Nada Matta, nada.matta@utt.fr. Do not submit directly to the journal. The first page should contain the title, author(s) and contact information of the corresponding author. Submitted papers must be original and must not be under consideration for publication elsewhere. Papers suitable for publication in the Special Issue will be double-blind reviewed, following the JIK's review process guidelines. The editors will base their final acceptance decision on relevance for the special issue, technical quality, innovative content, and originality of research approaches and results. All submitted manuscripts must be fully compliant with the general author guidelines.