



## **INVITED SESSION ON Knowledge Integration**

### **Organisers**

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**Scope:** Knowledge is the basis for a seamless global interoperability of an integrated overall world. Adaptive services for knowledge handling will assure the accuracy of the information and behaviour of the complex system at each local node and in the integrated global network, hence supporting the dynamics and evolutionary characteristics of the complex system.

Ensuring that the precise meaning of exchanged information is preserved and well understood, is fundamental to achieve a global integrated knowledgeable system, able to seamlessly collaborate globally. Three levels for Knowledge Integration are envisaged:

1. Technical: Investigating problems and proposing solutions for data integration (both data and information fusion), as well as defining novel concepts, methods and algorithms for enabling intelligent knowledge-based systems.
2. Semantic: Including methods and tools, usually in the form of ontologies or standardised data schemas, to tackle issues of automated information sharing during the various system's process execution steps.
3. Organisational: Relating to the problems and solutions relevant to knowledge-based business processes, functional organisation, or cross-enterprise collaboration activities, usually involving various ICT systems and knowledge sources.

This Invited Session on **Knowledge Integration** serves as a forum to present and discuss new contributions, research efforts and applications using novel knowledge integration concepts, methods and technologies, with the aim of improving intelligent decision support and interoperability of complex systems and its applications, making them more global and intelligent. We invite prospective authors to submit papers that advance the field of knowledge integration for developing intelligent systems. Original contributions are solicited in the following topics (but are not limited to):

- Knowledge-based systems
- Data Fusion / Information fusion
- Intelligent decision support systems
- Applications analysis and knowledge elicitation
- Reasoning, methods and tools for model transformation and data reconciliation
- Semantic mediation and enrichment of system's models
- Concepts, theories and principles for solving knowledge integration problems
- Proof of concept and assessment in knowledge integration
- Standards for knowledge integration and challenges in standardisation
- Business needs of knowledge integration

Papers should be submitted by **31<sup>st</sup> March, 2014** and sent by e-mail directly to the organisers of the session.

### **Scientific Committee (2 organizers, plus):**

Carlos Agostinho (UNINOVA, Portugal)  
Ehsan Shahamatnia (UNINOVA, Portugal)

João Sarraipa (UNINOVA, Portugal)  
Elisaveta Gourova (Univ Sofia, Bulgaria)