Special Issue:
The 2nd International Conference on Semantics, Knowledge and Grid

The International Conference on Semantics, Knowledge and Grid (SKG) is a cross-area international forum on semantic computing, knowledge networking, and grid computing. SKG promotes cross-area research and prods the development of relevant areas. Themes include the following aspects:

- Semantics and Semantic Grid.
- Knowledge and Knowledge Grid.
- Advanced Networking Model.
- Systems, Tools, and Applications.

The 1st conference SKG2005 was successfully inaugurated in Beijing, China [1]. The conference co-chairs were H. Zhuge and D. D. Roure. The program Co-Chairs were G. C. Fox and J. Liu. D. Harel presented an invited keynote ‘What’s the Semantics of Modeling Nature?’ G. C. Fox presented the theme talk ‘Services for the Semantic Grid’. H. Zhuge presented the theme talk ‘The Knowledge Grid and Its Methodology’. The proceedings of the conference was published by the IEEE Computer Society. The acceptance rate of regular papers is 12%. The special issue of SKG2005 was published in Concurrency and Computation: Practice and Experience [2].

SKG2006 was held in Guilin, China [3]. The conference chairs were I. Foster, J. Hendler and G. C. Fox. The program chairs were H. Zhuge and T. Ishida. X. Sun served the associate program chair. K. Aberer presented invited keynote ‘Structure and Dynamics of Emergent Semantics Systems’. G. C. Fox presented theme talk ‘Implications of Web 2.0 for the Semantic Grid’; T. Ishida, ‘Use of the Language Grid for Collaborative Work’; and H. Zhuge, ‘Completeness of Query Operations on Resource Spaces’. Submissions came from Australia, China (mainland, Hong Kong, Taiwan), France, India, Italy, Japan, Korea, U.K., and U.S.A. The acceptance rate of regular research papers was 18%.

This special issue includes seven papers mainly selected from the regular papers of SKG2006. The paper titled ‘Semantic Knowledge Facilities for a Web-based Recipe Database System Supporting Personalization’ introduces a Web-based recipe database system Dish_Master, which uses Knowledge Grid technologies [4]. The paper titled ‘Semantic Patterns for User-Interactive Question Answering’ introduces a user-interactive Question Answering (QA) system where a useful semantic pattern is used [5]. The paper titled ‘XML Metadata Services’ introduces a hybrid information service to manage both stateless and transient metadata on services [6]. The paper titled ‘Efficient Global Checkpointing Algorithms for Mobile Agents’ proposes checkpointing algorithms for mobile agent systems [7]. The paper titled ‘Semantic Representation of Scientific Document for the e-Science Knowledge Grid’ proposes an approach to use a fuzzy cognitive map to represent the...
semantics of texts by extracting keywords from texts [8]. The Resource Space Model is a semantic data model based on classification semantics. The paper titled ‘Resource Space View Centric Viewpoint Tour’ proposes a view mechanism for finding and reusing legacy resource spaces according to users’ idiosyncratic resource interests [9]. The Semantic Link Network is a solution to the Semantic Web. The paper titled ‘The Modeling Language and Tools for the Semantic Link Network’ presents a UML-based modeling language for the Semantic Link Network. The proposed metamodel, UML profile, and SLN builder and browser for Semantic Link Network are important parts of the Semantic Link Network model [10].

SKG has significantly encouraged the development of research and practice on Knowledge Grid and Semantic Grid. We expect this special issue to play an important role in promoting relevant cross-area research.

REFERENCES