



INVITED SESSION ON Intelligent Decision Making and Consensus

Organisers

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Scope: Intelligent decision making processes are developed by automatic decision-making systems that support individual or organisational decision making processes using different Information Technologies (as the Web and social networks) and Artificial Intelligence tools (as Computational Intelligence tools). The intelligent decision making processes involve the use of preference modelling and consensus processes. The preference modelling deals with the representation and models of the preferences provided by the experts in the problems. The fuzzy logic is a computational intelligence tool that provides an adequate framework to deal with the uncertainty presented in the user opinions. The fuzzy preference modelling has been satisfactorily applied in intelligent decision making. On the other hand, consensus is an important area of research in intelligent decision making. Consensus is defined as a state of mutual agreement among members of a group where all opinions have been heard and addressed to the satisfaction of the group. A consensus reaching process is a dynamic and iterative process composed by several rounds where the experts express, discuss and modify their preferences.

The objective of the proposed session is to highlight the ongoing research on intelligent decision making, fuzzy preference modelling and consensus processes under uncertainty. Focusing on theoretical issues and applications on various domains, ideas on how to solve consensus processes in intelligent decision making under fuzzy preference modelling, both in research and development and industrial applications, are welcome. Papers describing advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Topics appropriate for this special session include, but are not limited to:

- ❖ Fuzzy preference modelling in intelligent decision making
- ❖ Intelligent decision making system applications
- ❖ Consensus in fuzzy multi-agent decision making
- ❖ New models of fuzzy preference modelling
- ❖ Intelligent decision making system for big data
- ❖ Intelligent decision making in Web 2.0 frameworks
- ❖ Intelligent decision making in presence of incomplete information
- ❖ Aggregation of preferences
- ❖ Intelligent decision making in dynamic contexts

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