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## **CALL FOR PAPERS**

## **Special Session on**

## Integration of Quantitative and Qualitative Approaches for Decision Making Under Uncertainty and Incompleteness

Dear colleagues,

We would like to invite you to participate to the special sessions on "Integration of Quantitative and Qualitative Approaches for Decision Making Under Uncertainty and Incompleteness" that will be part of the next ICMLC2013 conference program.

Quantitative (also data-driven) and qualitative (also domain knowledge driven) techniques have been widely used in decision making, and they are still hot research topics due to their importance and effectiveness in addressing uncertainty and incompleteness. This invited special session will be focused on integration of both techniques for different decision making problems under uncertainty and incompleteness, and will aim at providing an opportunity for collecting some excellent work on the above common research areas including the state-of-the-art science and technologies, clarify the rationality and applicability of the approaches and their applications, review accomplishments, assess future directions, and share new ideas, original research results and practical experiences. Accordingly, we would like to invite you to submit your contribution within the following three research domains, which can be theoretical formalisms, methodologies; algorithms investigation, survey or practical applications:

1) Contribution on development of algorithms and systems for modeling, designing, fusing and applying both qualitative and quantitative models to handle multiple and heterogonous information for decision making purpose. The approaches could be either numerical or symbolic, or both; could be based on probability theory, fuzzy/possibility theory, belief function theory, and different varieties of logic based approaches (classical logics or non-classical logics).

2) Contribution on investigating, reviewing and assessing the principles, explanation, and strategies on how humans represent and use incomplete and uncertain data and knowledge from a cognitive science perspective;

3) Contribution on practical applications of the integration of both quantitative and qualitative formalisms and modelling approaches in science, engineering, business and education.

We especially welcome submissions of papers with the focus on applications.

All papers submitted in this session will be peer-reviewed. Accepted papers will be published in the conference proceedings. The extended version of best papers will be further reviewed to be considered in a special issue of international journal.

We would be very glad to receive your interest to this session. For that, please send **a** tentative title and a short abstract of your contribution, as well as your contact details for this session before 15<sup>th</sup> of March, 2013.

Afterwards, we will expect you to submit the full paper contribution (4-6 pages) following the <u>paper format</u> **before April 20, 2013** directly to the session organizers (<u>j.liu@ulster.ac.uk</u> or <u>luis.martinez@ujaen.es</u>).

We are looking forward to meeting you in Tianjin, China in July, 2013.

Session Organizers:

Dr. Jun Liu

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