

Special session : severe uncertainty in systems

Website : <http://kse2013.hnue.edu.vn/Home.aspx>

There are several fields of application (experimental and life sciences, complex systems, risk analysis,...) where systems and knowledge bases are pervaded with severe uncertainties. By severe uncertainties, we understand uncertainty arising from lack of data, imprecise or uncertain data, noisy data, incomplete or vague knowledge, ill-specified models, etc...

One possible way to deal with such uncertainties is to consider approaches where incompleteness or imprecision is included in the uncertainty model. The goal of this special session is to allow researchers to present and discuss how severe uncertainties can be modelled and handled in systems and knowledge bases. Contributions should focus on a specific problem regarding systems and knowledge engineering and propose a corresponding solution.

We expect contributions concerning the following issues :

- **Learning, (approximate) Reasoning and inference,**
- **Uncertainty propagation, risk and reliability analysis,**
- **Robustness and sensitivity analysis,**
- **Uncertainty modelling,**
- **Decision making,**
- **Information and data fusion,**
- **Systems of systems engineering,**
- **Optimization, Inverse problem**

and related fields.

We expect contributions using the following approaches :

- **Evidence / Dempster-Shafer theory,**
- **Imprecise probabilities and lower previsions,**
- **Robust (Bayesian) statistics,**
- **Possibility theory / fuzzy sets,**
- **Info-gap theory,**
- **Interval analysis,**
- **Viability theory,**

and related ones. Both theoretical and applied papers are welcomed.

Dates and submission guidelines

Submissions should follow the guidelines of kse2013 (<http://kse2013.hnue.edu.vn/Home.aspx>) and be submitted through the conference submission system.

- **Submission Deadline : 1st July 2013**
- **Conference dates : 17-19 October 2013**

Questions should be addressed to organizers :

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