

FUZZY DECISION-MAKING: THEORY AND APPLICATIONS

Chaired by Prof. Cengiz Kahraman

Decision-making is the cognitive process of selecting a course of action from multiple alternatives. Fuzzy decision-making originates from the ideas proposed by Bellman and Zadeh (1970), who introduced the concepts of fuzzy constraints, fuzzy objective and fuzzy decision. Fuzzy decision-making deals with non-probabilistic uncertainty and vagueness in the environment in which the decision-making takes place. Fuzzy set approaches to decision-making are usually most appropriate when human evaluations and the modeling of human knowledge are needed. A rational approach toward decision-making should take human subjectivity into account, rather than employing only objective probability measures.

This session covers the following topics but not limited to:

- Fuzzy Logic,
- Genetic Algorithms
- Probabilistic Computing,
- Hybrid Methods,
- Chaos Theory,
- Rough Set Theory,
- Evidence Theory,
- Interactive Computational Models,
- Artificial Intelligence And Expert Systems,
- Process and System Control,
- System Identification and Modelling,
- Optimization, Signal and Image Processing,
- Fault Diagnosis,
- Systems Integration,

- Internet Tools.
- Human-Machine Interface.
- Time Series Prediction,
- Noise Analysis,
- Real Time Systems,
- Robotics,
- Virtual Reality,
- Telecommunications,
- E-science and Technology,
- Data Mining,
- Data Visualization,
- Intelligent Information Retrieval,
- Autonomous Reasoning,
- Risk Analysis and Safety Related Issues.

IMPORTANT DATES:

• Special Session Proposal: December 15, 2007

• **Paper Submission:** January 15, 2008

• Acceptance Letter: March 15, 2008

• Final Paper Submission And Registration: April 15, 2008

Submit your paper to <u>flins2008@mat.ucm.es</u> or to my e-mail address <u>kahramanc@itu.edu.tr</u> indicating that your paper is for the special session **Fuzzy Decision-Making**: **Theory and Applications** chaired by Prof. Cengiz Kahraman.

A special issue of an international journal with SCI-indexed will be published for the papers presented in these special sessions.

Web site: http://www.mat.ucm.es/congresos/flins2008