A Special Session on

Fuzzy Logic and Its Applications in Industrial Engineering

organized by Cengiz Kahraman

Description

Industrial Engineering (IE) is concerned with the design, improvement, and installation of integrated systems of people, material, equipment, and energy. Industrial engineers face many problems with incomplete and vague information in these systems since the characteristics of these problems often require this kind of information. Fuzzy sets approaches are usually most appropriate when human evaluations and the modeling of human knowledge are needed. IE brings a significant number of applications of fuzzy set theory. This special session will cover the papers of industrial engineering applications using the ordinary and extended fuzzy sets as modeling tools. The extended fuzzy set types include type-2 fuzzy sets, hesitant fuzzy sets, intuitionistic fuzzy sets, etc.

Objective and Topics

The objective of the session is to present the new theoretical developments on fuzzy sets and their industrial engineering applications. We especially want to focus on hesitant, intuitionistic, and type-2 fuzzy sets. The possible interest areas of the session may be as follows:

- Fuzzy operation research techniques,
- Fuzzy engineering economics applications,
- Fuzzy Group and multicriteria decision-making,
- Fuzzy applications in human factors engineering and ergonomics,
- Fuzzy applications in manufacturing systems and technology management,
- Fuzzy statistical decision making
- Fuzzy reliability and control of the industrial systems.

Short biography of the organizer(s) and contact information:

Prof. Kahraman is a full professor at Industrial Engineering Department of Istanbul Technical University (ITU). His research areas are engineering economics, quality management, statistical decision making, multicriteria
decision making, and fuzzy decision making. He published about 170 journal papers and about 150 conference papers. He is in the editorial boards of many international journals and edited about 10 international books from Springer and Atlantis Press. He also guest-edited many special issues of international journals and organized international conferences. He was the vice dean of ITU Management Faculty between the years 2004-2007 and the head of ITU Industrial Engineering Department between the years 2010-2013.

**Important Dates**

- Paper submission
  **February 8, 2015**
- Notification of acceptance for papers
  **March 23, 2015**
- Camera-ready paper submission
  **April 21, 2015**
- Early registration deadline
  **April 23, 2015**
- Conference
  **August 2-5, 2015**

**Submission of the papers**

Please submit your papers for this special session to both the organizers and conference online submission system (http://fuzzieee2015.org/) by indicating the title of the special session.