

Special Issue on Fuzzy Functions, Relations, and Fuzzy Transforms 2013

Call for Papers

The fuzzy functions and fuzzy relations are extremely important for their applications to fuzzy systems. The term “fuzzy system” is understood in a wide sense and, particularly, in relation to the following areas: image processing, approximation reasoning, decision making support systems, control systems, and data analysis. At the same time, fuzzy transforms of functions and relations can be seen as alternatives to the known Laplace, Fourier, and wavelet transforms. They carry out the purpose of simplifying a problem in a transformed domain. By this, fuzzy transforms can be successfully used in the above areas. Important applications are nowadays, for instance, shown in coding/decoding images and videos, watermarking of images and videos, time series analysis, compression data analysis, compression databases, and so forth.

The authors are invited to submit original papers containing theoretical aspects and applications of fuzzy functions and fuzzy relations/transforms. We await authoritative papers with a great expertise. We hope that this special issue will collect the fundamental and theoretical results, show ones other than the above-mentioned applications, and overview the existing ones. Moreover, we expect that important challenges related to the future development of the fuzzy set theory will be formulated. Potential topics include, but are not limited to:

- Theoretical aspects of fuzzy transforms
- Fuzzy systems studied with fuzzy relations/transforms
- Fuzzy optimizations with fuzzy functions and relations/transforms
- Applications of fuzzy relations/transforms to image processing
- Applications of fuzzy relations/transforms to approximation reasoning
- Applications of fuzzy relations/transforms to decision-making support systems
- Applications of fuzzy relations/transforms to control systems
- Applications of fuzzy relations/transforms to data mining

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Manuscript Due	Friday, 5 July 2013
First Round of Reviews	Friday, 27 September 2013
Publication Date	Friday, 22 November 2013

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