

Call for papers for a special issue of Information Fusion An International Journal on Multi-Sensor, Multi-Source Information Fusion An Elsevier Publication

On "Hybrid Intelligent Fusion Systems"

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The Information Fusion Journal is planning a special issue devoted to Hybrid Intelligent Fusion Systems. Hybrid intelligent systems are becoming popular due to their capabilities in handling many real world complex problems, involving imprecision, uncertainty, vagueness and high-dimensionality. They provide us with the opportunity to use both, our knowledge and raw data, to solve problems in a more interesting and promising way. This multidisciplinary research field is in continuous expansion in the artificial intelligence research community. One of the most promising areas of hybrid systems is that of Multiple Classifier Systems (MCSs), which is currently the focus of intense research. The idea of designing MCSs was originally invented as an alternative way of improving performance of classifier systems by exploiting knowledge derived from different sources. Information fusion overcomes the limitation of traditional approaches based on single classifiers and opens new areas of research. The plethora of publications related to different aspects of designing MCSs as well as their applications in a variety of areas proves growing interests in the domain. Accordingly, the aim of this issue is to discuss the new theoretical trends and the applications of multiple classifiers concept, information fusion and related approaches using hybrid and bio-inspired approaches.

Manuscripts (which should be original and <u>not</u> previously published in full or in part or presented even in a more or less similar form under any other forum) covering new applications as well as the theories and algorithms dedicated designing multiple classifier systems using hybrid and bio-inspired methods are invited. Contributions should be described in sufficient detail to be reproducible on the basis of the material presented in the paper.

Topics of interest to this issue on fusion and ensemble models for design and development of Hybrid Intelligent Systems include, but are not limited to:

- Theoretical foundations of MCSs
- Hybrid or nature-inspired methods of fuser and ensemble design.
- Methods of decision making based on the information from different sources
- Methods of improving qualities of weak classifiers (boosting, bagging, etc.)
- Method of measuring and ensuring diversity in classifier ensembles
- Designing efficient computational systems for multiple classifiers
- Lattice computing systems
- Applications

Manuscripts should first be submitted electronically online at http://ees.elsevier.com/inffus
The corresponding author will have to create a user profile if one has not been established before at Elsevier. Simultaneously, please also send without fail the same exact electronic copy (PDF format preferred), to the Guest Editor(s) listed below.

Guest Editors

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