

Special Session on Sensor Networks (Within SSCI- MCDM)

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Objective:

The recent development of sensors integrated with memory, power supply and wireless networking capabilities enables wide-ranging applications for both military and civilian domains. Sensor nodes come bundled with a limited supply of energy and computation resources. These sensor networks have to cater to multiple tasks with different requirements. The proliferation of sensor and networking technologies has transformed the once simple question of “what do we need to detect and how do we best detect it?” into a more complex, multi-criteria sensor management problem with issues related to the number and type of sensors, spectrum resource management, sensor placement, calibration and fusion processing. In addition, the sensor network management algorithms should also cater to strict real-time constraints and changing mission requirements.

The special session focuses on recent developments in computationally intelligent multi-criteria decision making techniques required to optimally allocate the sensor/network resources to the various objectives, given the resource constraints.

The topics of interest include but are not limited to

- Real-time multi-criteria decision making approaches for sensor networks
- Sensor network applications involving multi-criteria decision making
- Multi-Objective Optimization in Machine Learning Applications
- Multi-objective optimization of sensor network deployment
- Multi-objective design of sensor networks
- Multi-criteria decision making techniques for sensor fusion
- Utility/cost functions design for multi criteria decision making in sensor networks
- Automatic decision support design for mission management in sensor networks

Important Deadlines:

- Submission: October 31st, 2008 (with a maximum slip of two weeks)
- Notification of Acceptance: December 15, 2008
- Final Submission: January, 15, 2008

Submission Details:

<http://www.ieee-cis.org/conferences/mcdm2009/upload.php>