The 19th International Conference on Neural Information Processing
Doha, November 12-15, 2012

Special session: **Neural Cognitive Architectures and Systems**

Aim and scope:

The aim of this session is to bring together researchers and engineers working towards better theoretical understanding and more effective practical implementations of cognitively-plausible artificial neural systems. The session will provide a forum for exchanging ideas and communicating recent accomplishments in this field.

Topics of interest include (but are not limited to):

- Computational models of human cognitive abilities
- Neural models of cognitive memory (associative, episodic, long-term, short-term, etc.)
- Cognitively-inspired neural information encoding and processing
- Cognitively-plausible learning mechanisms (Hebbian learning, competitive learning, etc.) and neural architectures (attractor networks, convolutional networks, etc.)
- Neural mechanisms for knowledge acquisition, knowledge management, and reasoning
- Application of neural cognitive systems to
    - Prediction
    - Decision making
    - Problem Solving
    - Game playing
    - Planning
    - Human-machine interaction
    - Autonomous data recognition and categorization
    - and other areas

Special session organizer: **Jacek Mańdziuk, Professor**

Faculty of Mathematics and Information Science
Warsaw University of Technology
Plac Politechniki 1
00-661 Warsaw, Poland
http://www.mini.pw.edu.pl

Contact: **mandziuk@mini.pw.edu.pl**