

## **Methods and Systems for Intelligent Human Computer Interaction (Editorial)**

This special issue is devoted to one of the important topics of the modern intelligent information systems – intelligent interaction with users. This subject encompasses speech and language communication, image and object recognition, and the use of different modalities, possibly in a multi-modal way. Significant efforts have been made in the area of speech and language communication systems (Cole et al, 1995) including the use of multiple modalities (Waibel et al, 1995).

Various methods have been explored in the pursuit of intelligent human computer interaction. Neural networks are among these methods. Several neural network models have been widely used and are well presented in the current special issue including: multi-layer perceptrons; self-organizing maps (Kohonen, 1988 and 1997); adaptive resonance theory (Carpenter and Grossberg, 1991); fuzzy neural networks and neuro-fuzzy systems (Kasabov, 1996); methods based on principles from the biological brains (Amari and Kasabov, 1997) to mention just a few.

The first four papers discuss issues of speech and language communication. The second group of four papers is devoted to recognition and classification of images and objects.

Paper nine is on integrating visual and auditory inputs in a common framework. The final paper discusses a general approach of applying the soft computing paradigm to building intelligent, adaptive systems.

### References

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