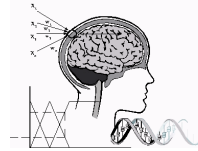




International

*Innovation in Knowledge Based and Intelligent
Engineering Systems*



INVITED SESSION SUMMARY

Title of Session:

Eye Movement Data Processing and Analysis

Name of Chair:

Dr Pawel Kasproski, Silesian University of Technology, Poland
Dr Katarzyna Harezlak, Silesian University of Technology, Poland

Details of Session:

Human eyes play an important role in the interpersonal communication and gathering knowledge regarding the surrounding world. The desire to understand this learning process leads to asking many questions: What is the subject looking at? What does he/she see looking at a given point? Did he/she find searched information? What kind of information was gained when looking at a particular area? Is one looking at expected point of regard? Finding answers to those and other questions is an important task in many fields of interests like psychology, medicine, business, advertising or software developing. This need is reflected in current research areas, among which the cognisance of an eye movement signal has a significant place, because information hidden in this signal can be a valuable source of knowledge. As a result new methods and intelligent systems regarding eye movement data processing and development have to be developed.

The aim of the workshop is to summarize the current state of the art in the eye movement data analysis and enable prospective researchers to present their new ideas concerning this subject.

The scope of the workshop includes but is not limited to:

- Collecting eye movement data
- Accuracy and precision of data
- Calibration of eye movement data signal
- Events detection (fixations and saccades)
- Gaze-based user interfaces
- Eye movement modelling
- Data mining of eye movement signal
- Eye movement based identification
- Improving man machine interactions for people with disabilities
- Eye movement applications in testing interface usability
- Eye movement in security systems
- Eye movement in solving problems
- Usage of eye movement signal in cognitive processes
- Methods improving quality of eye movement signal
- Recognition of people's intentions basing on their eye movement

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