



**INTELLIGENT SYSTEMS IS'14**  
**Warsaw, Poland**  
**September 24-26, 2014**  
<http://www.ibspan.waw.pl/ieee-is2014/>

## **INVITED SESSION ON Intelligent Robots**

### **Organisers**

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**Scope:** Recent years brought a rapid development of all kinds of robots. In order to control their diverse and complex embodiment and operate safely in non-deterministic environment they need to be endowed with various forms of intelligence. For example, they must be able to actively control their perception and amalgamate information from diverse senses. In order to attain human-like cognitive skills they must use suitable ontologies enabling them to work with contextual information while recognising objects and reacting to events occurring in the environment. Methods of artificial intelligence enable the robots to (re)plan their actions in real time. Intelligent robots must also be equipped with mechanisms for self-improvement via acquisition and integration of new knowledge. Additionally, it is necessary to equip them with the ability of multimodal communication with people, among whom they are supposed to operate. We should also take into account the recent progress in the field of architectures of robot control systems, enabling, among others, distribution of intelligence both in the form of sharing knowledge and delegation of computations to a cloud. Even such a brief and incomplete survey shows that robot intelligence can be manifested in many different ways and is currently a vibrant field of research, crucial for the emergence of new type of robots.

The aim of the invited session on **Intelligent Robots** is to gather researchers and practitioners to report on their recent achievements in the development of intelligent robots dealing with real-world problems. Topics of interest include, but are not limited to:

- Perception for Intelligent Robots
- Cognitive Robotics
- Environment Modelling and Representation for Intelligent Robots
- Robot Action Planning
- Intelligent Robot Control Architectures
- Programming of Intelligent Robots
- Intelligent Service and Field Robots
- Robot Learning
- Human-Robot Interaction

Papers should be submitted by 15<sup>th</sup> May, 2014 and sent by e-mail directly to the organisers of the session. Deadlines:

May 15<sup>th</sup>, 2014 – full paper submission deadline  
June 13<sup>th</sup>, 2014 – notification of acceptance/rejection  
June 27<sup>th</sup>, 2014 – final paper submission deadline