

# CIT – Intelligent Technologies integrator and supporter in Slovakia



## WHO WE ARE:

**Center for Intelligent Technologies (CIT)** is a joint research unit between the Technical University of Kosice, Slovakia and the Slovak Academy of Science. The main focus is **promoting new trends in IT** and supporting the **applications of intelligent technologies** in Slovakia mainly in industrial and banking environments. CIT is interested in **pattern recognition problems** including classification procedures in the feature space – **neural, fuzzy and hybrid-like classifiers**. CIT is also active in developing e-health in Slovakia. Within e-health CIT is interested in intelligent data analysis and decision support systems for medical staff.

Our activities include education, research and application research towards Intelligent Technologies.

We do have experience with USA-Slovak research projects, collaboration with Japanese universities and participation in FP5, FP6 project mainly SSA and Maria Curie Conferences for Computational Intelligence Domain. We have been working also with industry in financial sector and toward huge Heat production company to incorporate Intelligent systems into their information systems.

## WHAT MAKES US A GOOD PARTNER

- Center for Intelligent Technologies has been established in 1995 and currently has one full professor, 4 permanent PhD staff, 5 PhD students and approx. 20 MSc. Students.
- We have experience in integration of neural, fuzzy and evolutionary systems in problems like decision support, classification, prediction, and optimization. We offer our expertise also in Interactive systems, incremental and distributed learning for various systems. We would prefer working in domains of Robotics, e-health and industry in general.

Our members spent longer period on research stays in Japan namely in Tokyo Institute of Technology and Kyushu University.

## COLLABORATION INTERESTS:

CIT is interested in participating in EU projects in the field of Intelligent Technologies in fundamental level and also in application domains. CIT wants to join the EU community for robotics platforms and offer intelligent technologies and tools based on AI.

We would be able to contribute in number of fields regarding application and research of Computational Intelligence in domains as Robotics, E-health, Ambient Assistant Living, Intelligent Image processing.

## AREAS FOR R&D COLLABORATION:

- Intelligent Systems
- Neural Networks
- Fuzzy Systems
- Evolutionary Systems
- Implementation of Intelligent and Learning approaches in classification, prediction and optimization areas.

## MAIN ACHIEVEMENTS:

Development of the idea of MF-Artmap for classification purposes. Testing and further research is underway. Various applications in real-world related to classification problems.

## REFERENCE PROJECTS:

### Selection of projects:

**FP6 Project Starnet** – IST project for supporting New Member States in IST research – The role of the CIT is a Regional Node to encourage

SME and research units to participate on EU funded research. We organize technological audits, infodays and networking for units to push forward the Computational Intelligence into Technologies, (2005-2007)

**European Social Fund** – Project to inspire High School students towards Artificial Intelligence and better understanding the basic principles of Intelligent technologies (2006-2008)

**Intereg III project Slovakia** – Hungary – Pattern recognition application in ECG curves in mobile applications with the aim of warning procedure. (2006/2007)

**Maria Curie High Level conferences** – organization of events for gathering world leading research people from the domain of Intelligent technologies and present their work in Slovakia (2000-2002)

**Maria Curie Individual Fellowship** – research stay in Siemens PSE Vienna to promote Intelligent Systems in Siemens research work (2001/2002) Participation on Center of Excellence project at Waseda University at Humanoid Robotics Institute in Tokyo, 2005

## OTHER INFORMATION:

Name of the research department: Center for Intelligent Technologies (CIT)

Name of organization: Technical University of Kosice

Legal structure of the organization: Research Centre

Country: Slovakia

Number of researchers: 7

Working languages: English, Slovak

Contact person: Peter Sincak

Head of the center : Prof. Peter Sincak

E-mail: Peter.Sincak@tuke.sk

Tel.: +421 55 602 5161

Web site address: www.ai-cit.sk



For further information please look at [www.ai-cit.sk](http://www.ai-cit.sk)

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