



Machine Intelligence Research and Application Centre for Learning Excellence

Periodic 6-Monthly Report

Reporting period: 1 December 2003 – 30 November 2004

<i>Project acronym:</i>	MIRACLE
<i>Contract No:</i>	ICA 1-CT-2000-70002
<i>Project start date:</i>	1 December 2000
<i>Duration:</i>	48 months
<i>EU funding:</i>	638 000 Euro
<i>Key words:</i>	Artificial Intelligence, Machine Perception, Biocybernetics
<i>Report No.</i>	08/2004
<i>Report issued on:</i>	2 December 2004
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1. Activity Progress Report

The project was running in this reporting period according to the plan. All the performed activities of the MIRACLE Centre have been tightly connected with the current research areas and have been in line with the department research efforts and its integration into the European Research Area.

The Centre of Excellence award has significantly motivated the staff members of the Centre towards excellent performance. The MIRACLE Centre has become a recognised international workplace for many European scientists and PhD. students. Mutual contacts among European partners and networking have become very intensive and resulted in submitting several project proposals within the FP6.

In this period our efforts have been aimed at organising (or co-organising) several international events – workshops: “Agent Technology and Solutions”, and Computer Vision Winter Colloquia, workshop on Mind and Machine. The major event was the 8th European Conference on Computer Vision: ECVV 2004, which was organised by the MIRACLE Centre – Centre for Machine Perception. More than 500 professionals participated in the ECVV 2004 conference.

The other major event in this period was the 4th Yearly Meeting of coordinators of Centres of Excellence, which was organised by the MIRACLE Centre in cooperation with two Czech centres ARCCHIP and MEDIPRA. The meeting included a seminar focused on “Centres of Excellence and European Research Area” with participation of Mr P. Busquin, EU Commissioner responsible for research, and Czech academic representatives.

Our Centre is involved in several new FP6 projects (2 Networks of Excellence, 1 Integrated project, 1 Coordination Action) which went successfully through the evaluation process and started in 2004. Further 2 projects are at the stage of EC negotiation.

The MIRACLE Centre also actively participated at the IST exhibition in EuroIndia 2004, and International Engineering Fair (MSV 2004) in Brno (CZ) in a separate stand.

The major results achieved in this reporting period are listed below (further details follow in the individual workpackage reports):

- **Research Visits (long-term) to the MIRACLE Centre**
Frederick Schaffalitzki - researcher at University of Oxford, UK, WP3
- **Workshops**
Workshop **Agent Technology and Solutions**, (April 28-30, 2004), WP1, 6
Area Chairs meeting ECCV04 / Computer Vision Winter Colloquium (Jan 12-13, 2004), WP3
Workshop on **Mind and Machine** (June 24-26, 2004), WP 4
Pattern Recognition and Computer Vision Colloquium, Autumn 2004 (Oct 7, 2004), WP3
- **Conference**
ECCV 2004: 8th European Conference on Computer Vision (Prague, May 11-15, 2004), WP3
- **FP6 Projects**
– **ECOLEAD**: European Collaborative networked Organizations LEADership initiative (VTT Technical Research Centre of Finland), IP

- **EURON 2:** European Robotics Network (Kungl Tekniska Hogskola, Sweden), Network of Excellence
- **AgentLink III:** A Coordination Network for Agent-Based Computing (University of Liverpool), coordination action
- **I*PROMS:** Innovative Production Machines and Systems (Cardiff University, UK), Network of Excellence
- **COSPAL:** A microsystem for panoramic vision (coordinator: Linköping University, Sweden), STREPS

- **FP6 Projects under EC Negotiation**

- **NiSIS:** Nature-inspired Smart Information Systems Support, a coordination action under IST FEP/Open (coordinator: University of Sheffield, UK), the review process was successful.
- **VISIONTRAIN:** Marie Curie Training network (INRIA Rhone-Alpes, FR), the review process was successful.

- **Awards**

- **CIA 2004 System Innovation Award** (at the 8th International Workshop for Cooperative Information Agents, September 27-29, 2004 in Erfurt, Germany). The award has been granted for the **A-Globe lightweight multi-agent platform** providing inaccessibility support developed by the Gerstner Laboratory - Agent technology group.
- **2004 special award** of the jury in the competition “**Česká hlava**” (in English “Czech Head”, <http://www.ceskahlava.cz/>) was granted to the system for PC control by eye movements (I4Control) developed by the Gerstner Laboratory - Biocybernetics group. The “Česká hlava” project and related competition are aimed at supporting excellent research work and innovations in the Czech Republic.

- **Publications – book chapters**

Mařík, V. - Pěchouček, M.: Agent Technology. In *Collaborative Networked Organizations/ A Research agenda for emerging business models*. Norwell, MA: Kluwer Academic Publishers, 2004, s. 193-206. ISBN 1-4020-7823-4.

Afsarmanesh, H. - Mařík, V. - Camarinha-Matos, L.M.: Challenges of Collaborative Networks in Europe. In *Collaborative Networked Organizations / A research agenda for emerging business models*. Norwell, MA: Kluwer Academic Publishers, 2004, s. 77-90. ISBN 1-4020-7823-4.

Mařík, V. - Pěchouček, M.: Agent Technology for Virtual Organizations. In *Collaborative Networked Organizations / A research agenda for emerging business models*. Norwell, MA: Kluwer Academic Publishers, 2004, s. 245-252. ISBN 1-4020-7823-4.

EuroIndia 2004: Cooperation Forum on the Information Society New Delhi, India, 24-26 April 2004

The Czech Technical University, Department of Cybernetics – EU Centre of Excellence MIRACLE participated at the EuroIndia 2004 event. We showed the research developments of the IST projects and innovative solutions implemented in collaboration with Czech companies CertiCon a.s., Neovision s.r.o., and the Czech Centre of Applied Cybernetics focusing on e-enabling and industrial software technologies.





EuroIndia 2004: Cooperation Forum on the Information Society



Fourth Yearly Meeting of the coordinators of Centres of Excellence Prague, Czech Republic, 24-26 May 2004

Doctorate Honoris Causa Awarding Ceremony to Mr Philippe Busquin, Member of the European Commission, Bethlehem Chapel



Mr. P. Busquin (right), Mr. V. Mařík (left), Head, MIRACLE CoE, Czech Technical University in Prague

Centres of Excellence and European Research Area, Senate of the Czech Republic



Senator Mrs. Jaroslava Moserová



From left: Senator F. Jehlička, CTU Vice-rector L. Musílek, Mr P. Busquin, Mr J. Wilhelm, rector of Charles University



COE 2004: Fourth Yearly Meeting of the Centres of Excellence

