

# Welcome Message

Welcome to the first International Conference on Intelligent Networking and Collaborative Systems. INCOS is a multidisciplinary conference that covers latest advances in intelligence social networks and collaborative systems and held from November 4 to 6 at the Open University of Catalonia.

With the fast development of the Internet, we are experiencing a shift from the traditional sharing of information and applications as the main purpose of the Web to an emergent paradigm, which locates people at the very centre of networks and exploits the value of people's connections and relations. Web 2.0 has come to play a major role in this context by enabling a new generation of social networks and web-based communities and dramatically changing the way we use and interact with the Web. Social network analysis is also a rapidly growing field to investigate the dynamics and structure of intelligent Web-based networking and collaborative systems.

Virtual campuses and organizations strongly leverage intelligent networking and collaborative systems by a great variety of formal and informal electronic relations, such as business-to-business, peer-to-peer and many types of online collaborative learning interactions. This has resulted in entangled systems that need to be managed efficiently and in an autonomous way. In addition, latest and powerful technologies based on Grid and Wireless infrastructure as well as Cloud computing are currently enhancing collaborative and networking applications a great deal but also facing new issues and challenges. Well-known social networks lack of knowledge management and adaptive solutions and the information shared among peers is rather static. Virtual communities of practice also provide poorly interactive solutions and lack of full support for organization, management, mobility and security.

The principal aim of this conference is to stimulate research that will lead to the creation of responsive environments for networking and, at longer-term, the development of adaptive, secure, mobile, and intuitive intelligent systems for collaborative work and learning. INCOS addresses a large number of themes and focuses on the following research tracks:

- Intelligent networking for virtual organizations and campuses
- Intelligent networking for social networks
- Intelligent collaborative systems for work and learning
- Grid and P2P distributed infrastructure for intelligent networking and collaborative systems
- Wireless and sensor systems for intelligent networking and collaborative systems
- Data mining and knowledge management for intelligent networking and collaborative systems
- Security, organization, management and autonomic computing for intelligent networking and collaborative systems

The conference program committee had a very challenging task of choosing high quality submissions. After a peer review process in which each paper was reviewed by at least two referees, 32 regular papers and were selected for oral presentation in the conference sessions, and 12 short papers and 6 posters were selected for demonstration. Similarly, after a peer review, 19 regular papers and 4 short papers were selected for oral presentation in the following workshops:

- Workshop on Machine Intelligence for Geographic Information Systems (MIGIS 2009)
- Workshop on Adaptive Systems for Collaborative Learning (IWASCL 2009)
- Workshop on Information Network Design (WIND 2009)
- Doctoral Ph.D Forum

The conference and workshop sessions are scheduled to allow participants to choose among parallel sessions. We also offer two tutorials during which presenters will distill the essence of their topics into half-day tutorials. In addition, the Industrial Track is arranged in collaboration with 22@Barcelona firm. This edition of INCOS is blessed to have the presence of the following plenary speakers.

*Prof. Panos Pardalos, University of Florida, USA*

*Prof. Janusz Kacprzyk, Polish Academy of Sciences, Warsaw, POLAND*

*Prof. Helen Karatza, Aristotle University of Thessaloniki, GREECE*

*Prof. Albert Zamaya, University of Sidney, AUSTRALIA*

Many people have collaborated and worked hard to produce a successful INCOS 2009 conference. First and foremost, we would like to thank all the authors for submitting their papers to the conference, for their presentations and discussions during the conference. Our thanks to Program Committee members and external reviewers, who carried out the most difficult work by carefully evaluating submitted papers. We would like to express our sincere thanks to the general chairs, Begoña Gros, Fatos Xhafa and Ajith Abraham, for their work and great efforts in preparing an interesting technical programme. We would like to give special thanks to the members of the local organizing committee. We are very grateful to several institutions and corporations for their sponsorship and assistance. Finally, we hope that you will find these proceedings to be a valuable resource in your professional, research, and educational activities whether you are a student, academic, researcher, or a practicing professional.

We look forward to seeing you again in forthcoming edition of INCoS conference!

**Programme chairs**

Youakim Badr, INSA de Lyon, France

Santi Caballé, Open University of Catalonia, Spain

**General chairs**

Ajith Abraham, Machine Intelligence Research Labs (MIR Labs), USA

Fatos Xhafa, University of London, United Kingdom

(On leave from Technical University of Catalonia, Spain)

Begoña Gros, Open University of Catalonia, Spain

Barcelona, Spain  
October 5<sup>th</sup>, 2009