



International Conference on Intelligent
Networking and Collaborative Systems
(INCoS 2009)

Conference Program



November 4-6, 2009
Open University of Catalonia
Barcelona, Spain
<http://www.uoc.edu/symposia/incos2009>

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INCoS 2009 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 areas:

- Intelligent networking for social networks, virtual organizations and campuses
- 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

In addition, three workshops and one forum focus on specific areas and address outstanding challenges in the scope of the conference:

- 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. In addition, the Industrial Track is arranged in collaboration with 22@Barcelona and KIMbcn firms. 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 quality papers to 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 the conference program 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 the Second Edition of INCoS 2010 conference to be held in Aristotle University of Thessaloniki, Greece!

Programme chairs

Santi Caballé, Open University of Catalonia, Spain

Youakim Badr, INSA de Lyon, France

General chairs

Begoña Gros, Open University of Catalonia, Spain

Fatos Xhafa, University of London, United Kingdom

(On leave from Technical University of Catalonia, Spain)

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

Barcelona, Spain
November 4th, 2009

Conference Chairpersons

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Begoña Gros, Open University of Catalonia, Spain
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Ajith Abraham, Norwegian University of Science and Technology, Norway

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Conference Sessions

Intelligent Networking for Social Networks, Virtual Organizations and Campuses

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Maria Grigoriadou, National and Kapodistrian University of Athens, Greece
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Angel Juan, Open University of Catalonia, Spain
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Vasilis Komis, University of Patras, Greece
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Abelardo Pardo, University Carlos III of Madrid, Spain
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Simos Retalis, University of Piraeus, Greece

Wireless and Sensor Systems for Intelligent Networking and Collaborative Systems

Xavier Vilajosana, Open University of Catalonia, Spain (Chair)
Carles Antón-Haro, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), Spain
Ignasi Vilajosana Guillen, WorldSensing S.L.N.E, Spain
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Rafael González Cabero, Universidad Politécnica de Madrid, Spain
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José Luis Vázquez, Poletti Universidad Complutense de Madrid, Spain
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Rajkumar Buyya, University of Melbourne and Manjrasoft, Australia
Gonzalo Méndez, Universidad Complutense de Madrid, Spain
Alfredo Cuzzocrea, University of Calabria, Italy
Edgar Magana, CISCO Systems, USA
Eduardo Huedo, Universidad Complutense de Madrid, Spain
Gregorio Martinez, University of Murcia, Spain

Security, Organization, Management and Autonomic Computing for Intelligent Networking and Collaborative Systems

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Jan Martinovic, VSB-Technical University of Ostrava, Czech Republic
Jiri Dvorsky, VSB-Technical University of Ostrava, Czech Republic
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Jan Kozuszniak, VSB-Technical University of Ostrava, Czech Republic
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Data Mining and Knowledge Management for Intelligent Networking and Collaborative Systems

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Dinos Ferentinos, Informatics Laboratory of AUA, Greece
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John Dron, Athabasca University, Canada
Magdalini Eirinaki, San Jose State University, USA
Ambjorn Naeve, Royal Institute of Technology, Sweden
Wolfgang Prinz, Fraunhofer FIT, Germany

Workshops

2nd Workshop on Information Network Design (WIND 2009)

Chairs

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Akira Arutaki, Kyushu Institute of Technology, Japan
Toru Hasegawa, KDDI R&D Laboratories., Japan
Mario Koeppen, Kyushu Institute of Technology, Japan
Masato Tsuru, Kyushu Institute of Technology, Japan
Shigeki Yamada, National Institute of Informatics, Japan
Kaori Yoshida, Kyusyuu Institute of Technology, Japan

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Masato Uchida, Kyushu Institute of Technology, Japan
Albert Zomaya, University of Sydney, Australia

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Stelian Dimitrov, Sofia University St.Kliment Ohridski, Bulgaria
Jonathan Raper, City University London, United Kingdom

Workshop on Adaptive Systems for Collaborative Learning (IWASCL 2009)

Chairs

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Thanasis Daradoumis, Open University of Catalonia, Spain
Thrasylvoulos Tsiatsos, Aristotle University of Thessaloniki, Greece

Workshop Program Committee

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Kyparissia Papanikolaou, School of Pedagogical & Technological Education, Greece
Alexandros Paramythiis, Johannes Kepler University Linz, Austria
Thrasylvoulos Tsiatsos, Aristotle University of Thessaloniki, Greece

Doctoral Ph.D Forum

Chair

David Megías, Open University of Catalonia, Spain

Ph.D Forum Program Committee

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Industrial Track

Chairs

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Anna Majò, 22@ Barcelona, The Innovation District, Barcelona, Spain

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IEEE Systems, Man and Cybernetics Society
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Plenary Talks

Plenary Talk 1

The Critical Nodes Detection Problem in Networks

Professor Panos M. Pardalos

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Abstract

We study two problems that involve in detecting critical nodes in networks. In the first problem, we seek a set of vertices with a specified cardinality whose deletion results in maximum number of disconnected components. In an alternate version of the problem, we desire the specified amount of disconnectivity and try to minimize the number of vertices to be deleted in order to achieve this. This is referred to as the critical node detection problem, and finds applications in supply chain networks, epidemic control and identification of influential individuals in social networks, and telecommunication networks. In a supply chain network, it is important to ensure connectivity between supply and demand nodes. These nodes could be secured or made more resilient in order to retain connectivity in the network. In this talk, we review the recent work in this area and provide formulations based on integer linear programming. We also discuss new complexity results and present heuristic techniques to solve the problems.

Plenary Talk 2

Bridging the Gap Between the Human Being and Computer as a Key Issue in Human Consistent, Intuitive Collaborative Systems: the Role of Verbalization of Data Mining Results

Professor Janusz Kacprzyk
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Abstract

We consider a crucial problem in all kinds of computer based systems in which a human being plays an essential role, i.e. how to bridge the gap between the human being and the computer. Notably, for the human being the only fully natural means of communication and articulation is natural language, the human being's cognitive capabilities are limited and not growing, the human being may be unreliable, prone to fatigue, etc. These gaps can seriously harm the design and implementations of intelligent collaborative systems.

We consider basically the problem of a proper, human consistent presentation of results of data mining to be used for, e.g., decision making/support. Traditionally, the most popular approach is the use of computer graphics, and this has been successfully applied in many real world problems.

A much less popular form of presentation is verbalization in which the results to be used by the human being are presented in natural language. Clearly, there may be many cases when visualization is impossible, for instance in transportation or military applications, and voice, in natural language, does not distract attention.

We use the conceptually and numerically simple concept of a linguistic data(base) summary boiling down to the derivation of short sentence(s) in natural language that summarize the contents (semantics) of even very large data sets that can be incomprehensible in a raw form to the human being. We use fuzzy logic to effectively and efficiently represent and process imprecision, notably its related concept of a protoform. We show how the process of linguistic summarization may be implemented. We consider relations between the linguistic data summarization and natural language generation (NLG), an important area of modern information technology.

We present an implementation to a human consistent, intuitive collaborative decision support system at a computer retailer that makes use of data from local and remote sources of data, and adapts to human information needs.

Plenary Talk 3

Collaborative Scheduling in Distributed Systems

Professor Helen Karatza
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Abstract

Distributed systems have become increasingly common because they offer significant computational power and are cost-effective and scalable. Scheduling in distributed systems has been a major research goal for many years. It has been demonstrated that scheduling has a substantial impact on distributed systems performance and also that can preserve individual application performance so that certain jobs do not suffer from large delays.

In collaborative or cooperative scheduling in distributed systems, the nodes of the system cooperate by exchanging messages, in order to generate solutions to the scheduling problem. For example, in a distributed system a single job may be decomposed into a collection of tasks with precedence constraints among them. The tasks may be scheduled on different nodes of the system. The jobs may have end-to-end deadlines or data dependencies with other jobs. Moreover, failures may occur on some nodes of the system and thus task migration to other nodes may be required. In this case, in order to make a scheduling decision, all the nodes of the system must collaborate effectively.

A Grid is a decentralized heterogeneous system in which resources are located at different sites. Therefore, in such a dynamic distributed computing environment, where resource availability varies dramatically, the collaborative resource allocation and cooperative job scheduling are essential.

The performance evaluation of such systems is often possible only by simulation rather than by analytical techniques, due to the complexity of the systems. Simulation can provide important insights into the efficiency and tradeoffs of collaborative scheduling in distributed systems.

Plenary Talk 4

Characterising Local Level Topology in Complex Networks

Professor Albert Y. Zomaya

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NSW 2006, AUSTRALIA

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Abstract

Many complex systems are amenable to be described as networks, with a number of nodes which are units of the system, and connecting edges which denote the interactions between them. These networks can be physical (structural) or logical (functional) in nature, and range from biological networks to social and technological networks. Complex networks can be characterized by either considering their global properties, such as network diameter, maximum degree, and assortativity, or analyzing their local level topology. The second approach tends to offer deeper insights into the network's topology and function, since it does not assume homogeneity and it highlights the functional roles of particular modules and nodes. Furthermore, this approach has assisted in classification of networks which cannot be distinguished by considering global properties alone. Studying local level topology has been one of the most recent trends in complex networks research [3]. A number of tools have been proposed, with many of them producing distributions or profiles that which can be used to characterize the network. These tools include role-to-role connectivity profiles [3], local assortativity profiles [4], centrality distributions, motif analysis and centrality analysis of motifs. Role-to-role connectivity profiles were constructed in [3] based on average neighbor degree, and they demonstrated that two functional classes of networks can be identified based on these profiles. Local assortativity profiles in networks were analyzed in [4], by naturally decomposing network assortativity to individual node's contributions. It has been shown by [4] that four classes of complex networks can be distinguished, namely (i) assortative nets with assortative hubs (ii) assortative nets with disassortative hubs, (iii) disassortative nets with assortative hubs, and (iv) disassortative nets with disassortative hubs. It is demonstrated that local assortativity can be used to highlight functional roles of nodes in biological networks, especially as regulators or regulatees. Motif analysis is another tool that has been used extensively to characterize local structure, especially in biological networks. It is demonstrated in [2] with several examples that certain subgraphs that occur with high frequency in biological networks are connected with certain functional roles of the network. It is also noted that in many biological systems, motifs occur among nodes with high centrality - that is, they do not appear randomly in the network topology but are more likely to evolve in areas of high shortest path density. Distributions of betweenness and closeness centrality, as well as (node) clustering coefficient have also

been used to characterize local topology of networks. Robustness of networks against targeted attacks is strongly connected with their local level topology. Network robustness against targeted attacks was first analyzed by [1], where the targets were hubs. It has been shown since that in most real-world networks, a betweenness centrality based attack, targeting nodes in the order of high betweenness, is much more effective in decomposing the network quickly. A local assortativity based attack is also generally more effective compared to the hub based attack, and in some biological networks, more effective compared even to betweenness based attacks. In summary, characterizing complex networks in terms of their local level topology can aid in classification of networks, highlight functional roles of nodes and modules, and aid in analyzing robustness.

References

- [1] R. Albert, H. Jeong, and A.-L. Barabasi. Error and attack tolerance of complex networks. *Nature*, 406(6794):378–382, July 2000.
- [2] U. Alon. *Introduction to Systems Biology: Design Principles of Biological Circuits*. Chapman and Hall, London, 2007.
- [3] R. Guimera, M. Sales-Pardo, and L. A. Amaral. Classes of complex networks defined by role-to-role connectivity profiles. *Nat Phys*, 3(1):63–69, January 2007.
- [4] M. Piraveenan, M. Prokopenko, and A. Y. Zomaya. Classifying complex networks using unbiased local assortativity. preprint, 2009.

Industrial Track (SynergyS22@Barcelona)

Within the program of INCoS 2009, in the afternoon of the 5th of November 2009, the SynergyS22@Barcelona event will take place at the 20th floor of "Torre Mapfre" (see Map for location), a skyscraper located at the Barcelona Olympic Port.



Mission of the INCoS 2009 Industrial & SynergyS22@Barcelona



22@Barcelona, with the help of KIMbcn (Knowledge Innovation Market Barcelona), organizes the SynergyS22@Barcelona in the context of the Industrial Track of INCoS 2009 in order to extract the maximum value of the scientific congresses, which take place in Barcelona and connect them with the Barcelona's economical activity.

SynergyS22@Barcelona joins the research community with the industry, transforms personal relations into business opportunities and provides the participant companies with the opportunity of a free access to the new emergent technologies and research that could increase their competitiveness.

This event offers the opportunity to perform the first SynergyS22@Barcelona, between the researchers and the companies related to the fields of Intelligent Networking and Collaborative Systems. Companies related to these fields sector will expose their needs, challenges and trends to more than 100 researchers, experts on this promising research field. SynergyS22@Barcelona is aimed to have an informal character in order to have an open and fluent information exchange between the participants.

More information at <http://www.kimbcn.org/synergys/>

Agenda

- 17:00 - 17:30 Registration
- 17:30 - 17:40 Welcome to SynergyS 22@Barcelona
- 17:40 - 17:45 SynergyS presentation
- 17:45 - 18:10 Companies challenges
 Yahoo Research
 CIP Microsoft
 Strands
 Dotopen
 Polymita
- 18:10 - 19:00 Networking coffee

*The event will be in casual wear.

Conference Agenda

Day 1 – Wednesday, Nov. 4th

Registration at the conference place

Reception Desk, Wednesday, 8:00

INCoS 2009 Welcome

Begoña Gros, Vice rector of Innovation at the Open University of Catalonia and General co-Chair of INCoS 2009

Fatos Xhafa, General co-Chair of INCoS 2009

Ajith Abraham, General co-Chair of INCoS 2009

Santi Caballé, Program Committee co-Chair of INCoS 2009

Youakim Badr, Program Committee co-Chair of INCoS 2009

2nd Floor. Room A, Wednesday, 9:00

Keynote Panos M. Pardalos (Plenary Talk 1)

2nd Floor. Room A, Wednesday, 9:30

Coffee Break. 2nd Floor. Room C, Wednesday, 10:30

Intelligent networking for social networks, virtual organizations and campuses I

2nd Floor. Room A, Wednesday, 11:00 (Session chair: Youakim Badr)

14. Zakaria Maamar, Leandro Krug, Youakim Badr, Said Elnaffar. Even Web Services Can Socialize: A New Service-Oriented Social Networking Model

23. Angela Fogarolli and Marco Ronchetti. Domain Independent Semantic Representation of Multimedia Presentations

28. Yuki Okamoto, Phuong Dinh Thi Dong, Fumiko Harada and Hiromitsu Shimakawa. Programming Skill Transfer from Experienced to Novices with Animated Diagrams

6. Manfred Lohr. Mobile Learning by the Example of the Carnuntum Scenario

Security, organization, management and autonomic computing for intelligent networking and collaborative systems I

2nd Floor. Room B, Wednesday, 11:00 (Session chair: Vaclav Snasel)

37. Javier García-Algarra, Pablo Arozarena-Llopis, Sergio García-Gómez and Álvaro Carrera-Barroso. A Lightweight Approach to Distributed Network Diagnosis under Uncertainty

40. Bogdan Ghit, Octavian Voicu, Florin Pop and Valentin Cristea. Distributed Agent Platform with Intrusion Detection Capabilities

52. Jie Wu, Hussam Abdulla and Vaclav Snasel. Application of Binocular Vision and Diamond Search Technology in Computer Vision Navigation

17. Marta Rybczyńska. A Round-based Cover Traffic Algorithm for Anonymity Systems

Lunch. 2nd Floor. Room C, Wednesday, 13:00

Intelligent networking for social networks, virtual organizations and campuses II

2nd Floor. Room A, Wednesday, 14:30 (Session chair: Thanasis Daradoumis)

38. Patricia Santos Rodriguez, Wenceslao Llobet, Davinia Hernández-Leo and Josep Blat. QTI for self-assessment and embedded- assessment in competence oriented scenarios: The Agora Case

29. Phuong Dinh Thi Dong, Fumiko Harada and Hiromitsu Shimakawa. Collaborative Learning Environment to Improve Novice Programmers with Convincing Opinions in Computer Room

49. Benoit Gaudou, Tuong Vinh Ho and Nicolas Marilleau. Introduce collaboration in methodologies of modeling and simulation of Complex Systems

61. Kahina Hamadache and Luigi Lancieri. Role-Based Collaboration Extended to Pervasive Computing

65. Clauzel Damien, Sehaba Karim and Prié Yannick. Modelling and visualising traces for reflexivity in synchronous collaborative systems

Security, organization, management and autonomic computing for intelligent networking and collaborative systems II

2nd Floor. Room B, Wednesday, 14:30 (Session chair: Vaclav Snasel)

30. Mohamed El-Hadedy, Danilo Gligoroski and Svein Johan Knapkog. Low Area Implementation of the Hash Function “Blue Midnight Wish – 256” for FPGA platforms

33. Abdullah Alnajim and Malcolm Munro. An Approach to the Implementation of the Anti-Phishing Tool for Phishing Websites Detection

74. Jieren Cheng, Jianping Yin, Yun Liu, Zhiping Cai, and Chengkun Wu. DDoS Attack Detection Using IP Address Feature Interaction

62. Reza Tavoli, Amir Masoud Rahmani, Mohammad Teshnelab. A New Channel In Reo With Fuzzy Method

Coffee Break. 2nd Floor. Room C, Wednesday, 17:00

Discussion panel

2nd Floor. Room A, Wednesday, 17:30. (Chair: Ajith Abraham) Panelists:

Josep Casanovas, Marta Continente, Marta Fernández, Daniel Golobart, Jordi Graells, Rosa M Martín, Héctor Puente and Lucas Ponce, Presidencial Department of Catalan Government.

Albert Esplugas, Microsoft Innovation Center

Begoña Gros, Magí Almirall, Open University of Catalonia

Poster session*

2nd Floor. Room C, Wednesday, All day

Day 2 – Thursday, Nov. 5th

Registration at the conference place

Reception Desk, Thursday, 8:30

Keynote Janusz Kacprzy (Plenary Talk 2)

2nd Floor. Room A, Thursday, 9:00

Coffee Break. 2nd Floor. Room C, Thursday, 10:00

Keynote Alberto Zomaya (Plenary Talk 4 for WIND 2009 open to INCoS 2009)

2nd Floor. Room A, Thursday, 10:30

Workshop on Information Network Design (WIND 2009) I

2nd Floor. Room A, Thursday, 11:30 (Session chair: Mario Koeppen)

34. Kohei Watabe, Yudai Honma and Masaki Aida. Design of Probe Intervals to Improve Accuracy of CoMPACT Monitor

43. Chisa Takano, Kenji Ishida and Masaki Aida. A Study of Improving Fairness among Flows in Ad hoc Networks

82. Yuki Hanazawa, Yusuke Sasaki and Hiroyoshi Miwa. Efficient Degree Constrained Broadcast Method on P2P Networks

81. Ryota Nakamura, Akito Hashimoto and Hiroyoshi Miwa. Methods of Locating Mirror Servers with High Connectivity and Small Distances (short)

85. Dirceu Cavendish, Yuji Oie, Hiroshi Koide and Mario Gerla. Characterizing Transactions on Multi-Server Systems (short)

Security, organization, management and autonomic computing for intelligent networking and collaborative systems III

2nd Floor. Room B, Thursday, 11:30 (Session chair: Jiri Dvorsky)

47. Stefan G. Weber. Harnessing Pseudonyms with Implicit Attributes for Privacy-Respecting Mission Log Analysis

45. Emerson Loureiro, Paddy Nixon and Simon Dobson. Decentralized Utility Maximization for Adaptive Management of Shared Resource Pools

21. Ibrahim Kamel, Osama Al-Koky and Amer Dakkak. Distortion-Free Watermarking Scheme for Wireless Sensor Networks

Lunch. 2nd Floor. Room C, Thursday, 13:00

Workshop on Information Network Design (WIND 2009) II

2nd Floor. Room A, Thursday, 14:30 (Session chair: Masato Tsuru)

83. Akihiro Fujihara and Hiroyoshi Miwa. Relaxation times of information collections in an epidemically information-sharing process with randomly moving sensors on bounded space
86. Shinya Yamamura, Akira Nagata, Masato Tsuru and Hitomi Tamura. Virtual Segment:Store-Carry-Forward Relay-Based Support forWide-Area Non-Realtime Data Exchange
88. Mikio Mizutani, Yusuke Miyoshi, Kazuya Tsukamoto, Masato Tsuru and Yuji Oie. Network-supported TCP Rate Control for High-speed Power Line Communications
89. Kentaro Ogawa, Kenichi Higuchi and Shinichiro Chaki. Fault Management in Functionally Distributed Transport Networking for Large Scale Networks
90. Takeshi Koga, Kei Ohnishi, Kazuya Tsukamoto and Yuji Oie. Complex Routing for Temporary Information Sharing in Wireless Mesh Networks (short)
93. Rodrigo Verschae, Mario Koeppen and Kaori Yoshida. User modeling for improving QoS using partial user-supplied information (short)
94. Hideyuki Shimonishi, Hideya Ochiai, Nobuyuki Enomoto and Atsushi Iwata. Building Hierarchical Switch Network Using OpenFlow (short)
79. Masahiro Sasabe and Tetsuya Takine. A Simple Scheme for Relative Time Synchronization in Delay Tolerant MANETs (short)

Grid, P2P, distributed infrastructure for intelligent networking and collaborative systems

2nd Floor. Room B, Thursday, 14:30 (Session chair: Mauricio Paletta)

11. Mauricio Paletta and Pilar Herrero. A MAS-based Negotiation Mechanism to deal with Service Collaboration in Cloud Computing
12. Xavier Vilajosana, Ruby Krishnaswamy, Angel A. Juan, Daniel Lázaro and Joan Manuel Marqués. Simulation and Modelling of a Multi-Lane Double Auction Mechanism to Allocate Computational Resources in the Grid
35. Dragos Sbirlea, Alina Simion, Florin Pop and Valentin Cristea. Monitoring Workflow Applications in Large Scale Distributed Systems
78. Pavel Kromer, Vaclav Snasel, Jan Platos, Ajith Abraham and Hesam Izakian. Scheduling Independent Tasks on Heterogeneous Distributed Environments by Differential Evolution
4. Jong-Hyun Park, Won-Ik Park, Young-Kuk Kim, Ji-Hoon Kang. A Personalized Device Recommender System in Ubiquitous Environments

Poster session*

2nd Floor. Room C, Thursday, All day

Industrial track: Synergys (More info: <http://www.kimbcn.org/synergys>)

20th Floor, Thursday, 17:30

Social dinner

Restaurant "La Miranda del Museu" Thursday, 20:00

Day 3 – Friday, Nov. 6th

Registration at the conference place

Reception Desk, Friday, 8:30

Keynote Helen Karatza (Plenary Talk 3)

2nd Floor. Room A, Friday, 9:00

Coffee Break. 2nd Floor. Room C, Friday, 10:00

Wireless and sensor systems for intelligent networking and collaborative systems

2nd Floor. Room A, Friday, 10:30 (Session chair: Xavi Vilajosana)

5. Doohyun Ko, Hyeong-jong Ju, Sangbin Lee, Sungjun Kim, and Sunshin. ECO: Enhanced Reader Collision Avoidance MAC for Reader-Sensor Networks

19. Nima Jafari Navimipour and Amir Masoud Rahmani. The New Genetic Based Method with Optimum Number of Super Node in Heterogeneous Wireless Sensor Network for Fault Tolerant System

42. Ehsan Pourfakhar and Amir Masoud Rahmani. A New CMAC-Based Local Recovery Approach to Achieve Reliable Multicast in Wireless Mesh Networks

75. Saud Al otaibi and Francois Siewe. Architecture of EHARP Routing Protocols in Ad Hoc Wireless Networks

8. Mani Zarei, Amir Masoud Rahmani, Avesta Sasan and Mohammad Teshnehlab. Fuzzy based trust estimation for congestion control in wireless sensor networks (short)

36. Hyeong-Jong Ju. Enhanced Distributed Address Assignment Scheme for ZigBee-Based Wireless Sensor Networks (short)

Workshop on Adaptive Systems for Collaborative Learning (IWASCL 2009)

2nd Floor. Room B, Friday, 10:30 (Session chair: Stavros Demetriadis)

27. Michael Kickmeier-Rust, Christina Steiner and Dietrich Albert. Non-Invasive Assessment and Adaptive Interventions in Learning Games

54. Miky Ronen and Dan Kohen-Vacs. Designing and Applying Adaptation Patterns embedded in the Script

56. Natalia Padilla Zea, Nuria Medina Medina, Francisco Luis Gutiérrez vela and Patricia Paderewski. Modeling a VGSCS System to Analyze Collaboration

59. Isabela Gasparini, Daniel Lichtnow, Marcelo Pimenta and José Palazzo M. de Oliveira. Quality Ontology for Recommendation in an Adaptive Educational System

95. Mar Pérez-Sanagustín, Javier Burgos, Davinia Hernández-Leo and Josep Blat. Considering the intrinsic constraints for groups management of TAPPS & Jigsaw CLFPs

96. Stavros Demetriadis and Ioannis Magnisalis. Modeling adaptation patterns with IMS-LD specification: a case study as a proof of concept implementation

97. Alberto Bayón, Olga C. Santos, Jorge Couchet and Jesus G. Boticario. An architecture for adaptive collaboration support guided by learning design

Lunch. 2nd Floor. Room C, Friday, 13:00

Data mining and knowledge management for intelligent networking and collaborative systems

2nd Floor. Room A, Friday, 14:30 (Session chair: Salvador Sánchez and Miguel-Angel Sicilia)

76. Nikos Manouselis. Developing a Recommendation Web Service for a Federation of Learning Repositories

24. Miguel-Angel Sicilia. Exploring structural prestige in learning object repositories: some insights from examining references in MERLOT

15. Jing Qiu, Lejian Liao and Peng Li. Relation Extraction from Chinese News Web Documents Based on Weakly Supervised Learning

20. Petr Klement and Vaclav Snasel. Anomaly Detection in Emergency Call Data – the First Step to the Intelligent Emergency Call System Management

Workshop on Machine Intelligence for Geographic Information Systems (MIGIS 2009)

2nd Floor. Room B, Friday, 14:30 (Session chair: Vit Vozenilek)

55. Miloš Kovačević, Branislav Trivić, Branislav Bajat and Radmila Pavlović. Geological Units Classification of Multispectral Images by Using Support Vector Machines

57. Miloš Marjanović, Branislav Bajat and Miloš Kovačević. Landslide susceptibility assessment with machine learning algorithms

58. Vit Vozenilek. Artificial intelligence and GIS: mutual meeting and passing

60. Jan Brus, Zdena Dobešová and Jaromír Kaňok. Utilization of expert systems in thematic cartography

98. Jiri Dvorsky, Vaclav Snasel and Vit Vozenilek. Map Similarity Testing Using Matrix Decomposition

Coffee Break. 2nd Floor. Room C, Friday, 17:00

PhD Forum

2nd Floor. Room A, Friday, 17:30 (Session chair: Robert Clarisó)

48. Jordi Llosa Melich, Ignasi Vilajosana, Xavier Vilajosana, Nacho Navarro, Emma Suriñach and Joan Manuel Marques. Design of a Motion Detector to Monitor Rowing Performance based on Wireless Sensor Networks

16. Jing Qiu, Lejian Liao and Peng Li. Combining Syntactic Structured and Flat Features for Relation Extraction Using Co-training

26. Maria Pérez-Mateo and Montse Guitert. Tools for collaborative learning: the use of wiki

63. Sergio Castillo-Perez and Joaquin Garcia-Alfaro. Spyware-based Menaces Against Web Applications

64. Albert Pastrana and Enric Serradell. Possibilities of open source software in developing local small business

99 Juan José Marin. Learning Free Software Development from Real-World Experience

Poster session*

2nd Floor. Room C, Friday, All day

CONFERENCE CLOSING

2nd Floor. Room A, Friday, 19:00

***POSTER SESSION, 2nd Floor, Room C, All days**

68. sakuna charoenpanyasak. ORDERED VS NON-ORDERED messages in SCTP multihoming over Ad hoc networks

70. Andreea Cirneci, Stefan Boboc, Catalin Leordeanu, Valentin Cristea and Cristian Estan. Netpy: Advanced Network Traffic Monitoring

50. Tse-Ming Tsai, Chia-Chun Shih and Ting-Chun Peng. Explore the possibility of utilizing Blog Semantic Analysis for Domain Expert and Opinion Mining (short)

51. Monika Steinberg and Jürgen Brehm. Social educational games based on Open Content

67. Hiromi BAN. Construction of an e-Learning System for Supporting the Learning of English Sentences (short)

1. Osama Mansour. Group Intelligence: a distributed cognition perspective (short)

80. Akira Noguchi, Takeshi Fujimura and Hiroyoshi Miwa. Traffic Engineering by Polynomially Solvable Link Metric Optimization

84. Yuji Okamoto and Takeo Fujii. Multi-cell Interference Reduction Packet Control for Improving Cell Boundary Throughput for Multi-hop Cellular System

87. Akira Nagata, Shinya Yamamura and Masato Tsuru. Integrating Multiple and Heterogeneous Challenged Networks for Large-Sized Data Transfer

91. Takumi Miyoshi and Kenji Sekiya. On the Packet Similarity of Real-time Streaming Services

Further Information

Conference Dinner

The Conference Dinner will take place at the Restaurant “La Miranda del Museu”

Location: Pl. Pau Vila, 3 Barcelona.

Date: November 5th at 20:00.

Web: <http://www.restaurantportinyol.com/museu/ingles/index.htm>

Wi-Fi Access to Internet

During the conference, there will be free Wi-Fi access to Internet for all registered participants in Room A (Plenary) and B. No specific data for Wi-Fi access is necessary.

Lunches and Coffee Breaks

There will be free Lunch and Coffee Break for all registered participants during the conference days at Room C.

Alternative restaurants

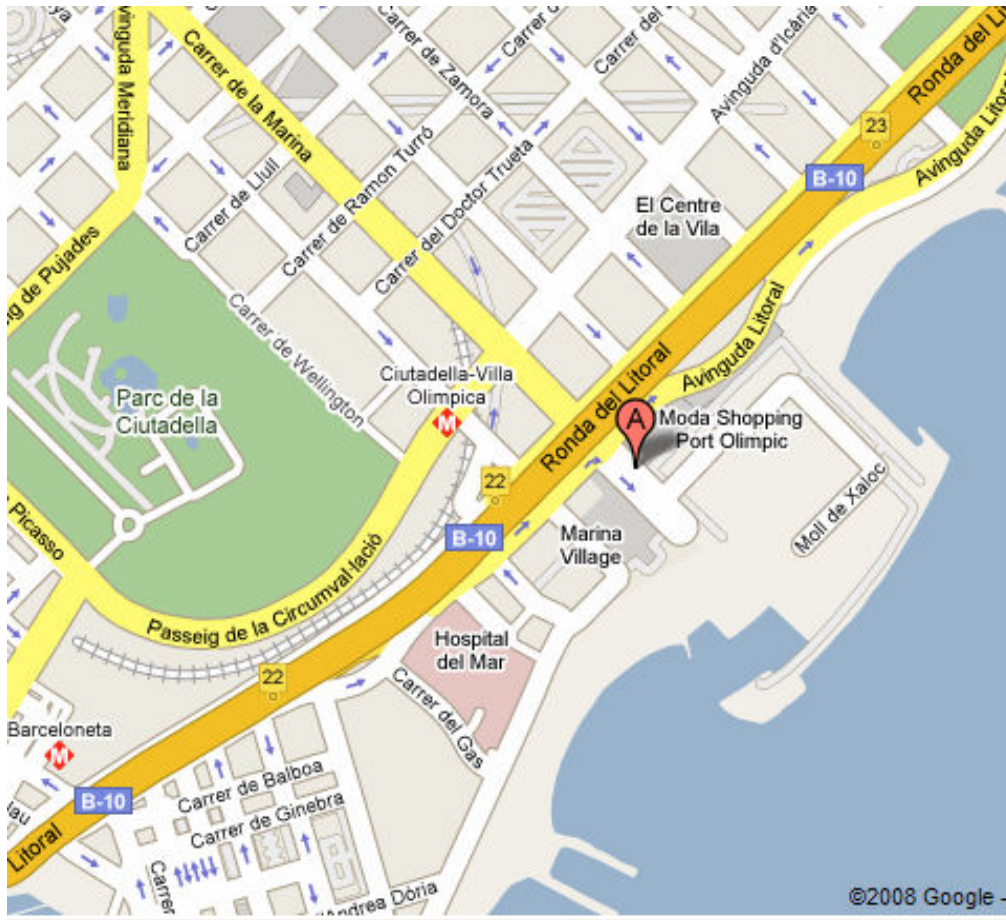
The area around the Mapfre Tower is plenty of well-known restaurants. Just behind the conference’s location, at the seaside in the port area, you will find a large number of all rates restaurants.

Sightseeing Barcelona

You will find tourist information in the conference bag. Enjoy Barcelona!

MAPS

Location of the Conference Site Torre Mapfre

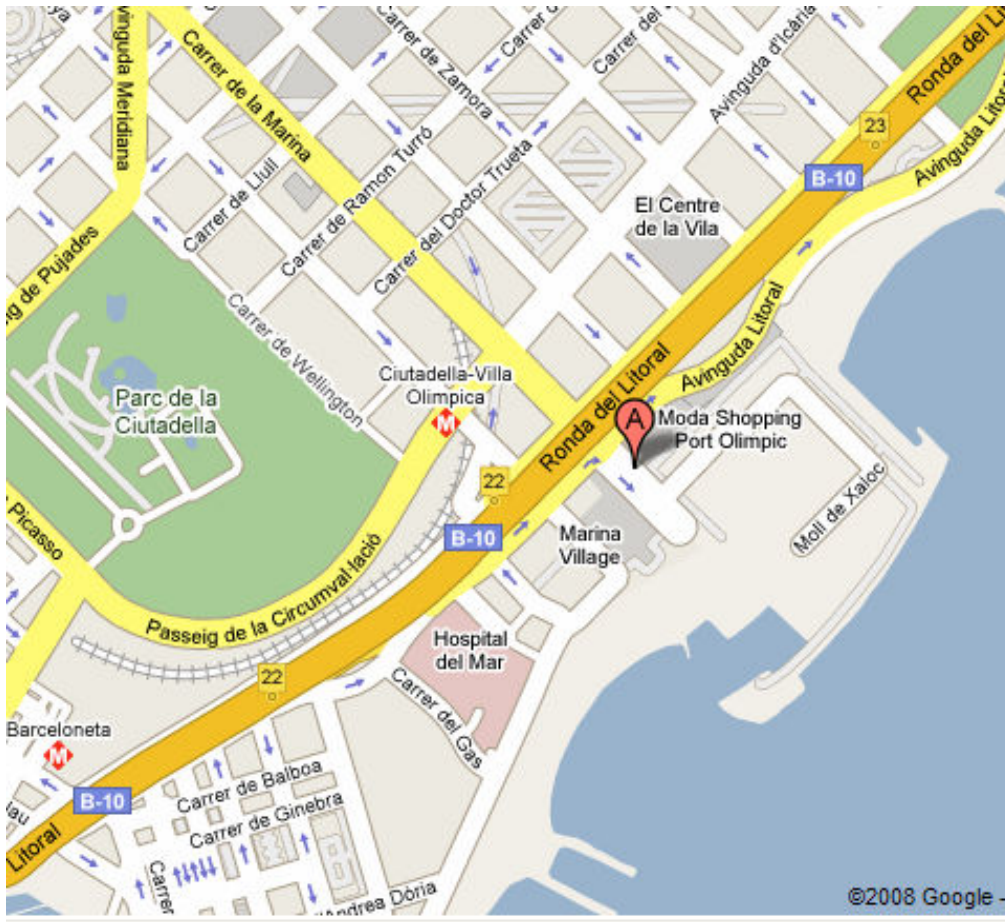


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Location of the Industrial Track - SynergyS22@Barcelona
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