

PROGRAMME

June 16th-18th, 2010
Guimarães, Portugal

ISAmI 2010

isami2010.di.uminho.pt
International Symposium on Ambient Intelligence

SOCO 2010

soco2010.di.uminho.pt
5th International Workshop on Soft Computing Models in Industrial Applications

IWPACBB 2010

iwpacbb2010.di.uminho.pt
4th International Workshop on Practical Applications of Computational Biology & Bioinformatics

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WELCOME

We are proud to welcome all of you to the ISAmI, SOCO and IWPACBB Conferences, held in the Cradle of Portugal, the city of Guimarães.

The city of Guimarães, known around the world as the city where Portugal was born, and, nowadays, for its brilliantly recovered Historic Centre, recognized by UNESCO classification as a World Cultural Heritage, represents an excellent opportunity to enter the History of Portugal and, therefore and at the same time, an opportunity to get to know the History of Europe. Guimarães was nominated to be European Capital of Culture, in 2012.



Guimarães is part of the Minho region, naming our institution, the University of Minho.

Founded in 1973, the University of Minho (UMinho) began its academic activity in 1975/1976. UMinho is renowned for the quality of its teaching, the quality of its students, the public recognition given to its Alumni and for its intervention and strong links with the local community and the surrounding region. UMinho has a student population of almost 20.000, out of which more than 1.100 are PhD students.



The Department of Informatics, to which we belong, is responsible for research and teaching in the areas of Information Technologies and Communications of UMinho. The department provides knowledge, expertise and resources in these areas through the teaching of both graduate and undergraduate courses, as well as by carrying out several research projects, under the Research Centre CCTC – Computer Science and Technology Centre.



We would like to thank to all the institutions, enterprises, participants, authors, referees, program and organization committee members and volunteers: without their hard work, the organization of these events would never be possible.

Paulo Novais, Cesar Analide and Miguel Rocha

Organization Chairs

GUIMARÃES

Maps and Venue

Guimarães hosts the 2010 editions of ISAmI, SOCO and IWPACBB Conferences.

Guimarães is a city in the north of Portugal, in the Minho region, approximately 350Km north of the capital, Lisbon, and about 50Km from the second largest city, Porto.

The city of Guimarães has its origin in times previous to the foundation of the Portuguese nationality, and represents more than just the simple birth of a city. Guimarães precedes and prepares the



birth of Portugal in the 12th century, and represents the cradle where its prince and its kingdom were born.

The city of Guimarães is like no other city in Portugal. Its past is so intimately intertwined with the History of Portugal that it is proudly referred to as the Cradle of the Nation.

“AQUI NASCEU PORTUGAL”

“HERE BORN PORTUGAL”

The city centre, classified as a UNESCO World Cultural Heritage, is associated with the emergence of the Portuguese national identity in the 12th century. An exceptionally well-preserved and authentic example of the evolution of a medieval settlement into a modern



town, its rich building typology exemplifies the specific development of Portuguese architecture from the 15th to the 19th century through the consistent use of traditional building materials and techniques.



HOTEL DE GUIMARÃES

Hotel de Guimarães hosts the organization of ISAmI, SOCO and IWPACBB Conferences.

Hotel de Guimarães is located in the centre of Guimarães and is an excellent and modern four stars hotel, where the quality of the services provided and the client’s satisfaction are its primal goal.

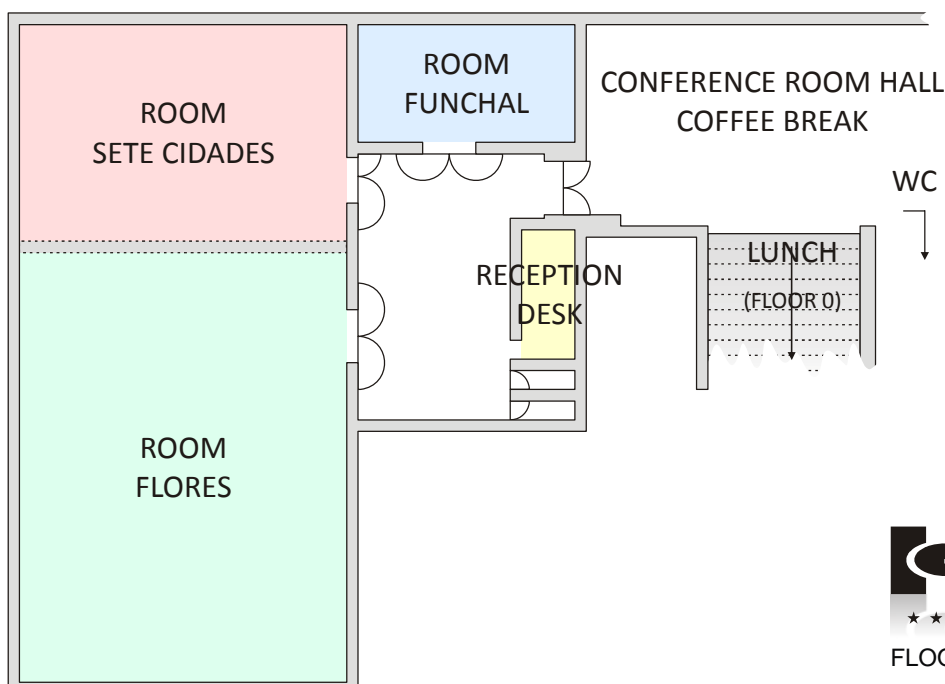
Clean-cut design and cutting-edge technology await guests at Hotel de Guimarães. Visit the restaurant and indulge in regional cuisine with a modern twist. The piano bar boasts stunning views and is the perfect place to relax.

Hotel de Guimarães abides by the Quality Management System, certified in accordance to European norm ISO 9001-2000.

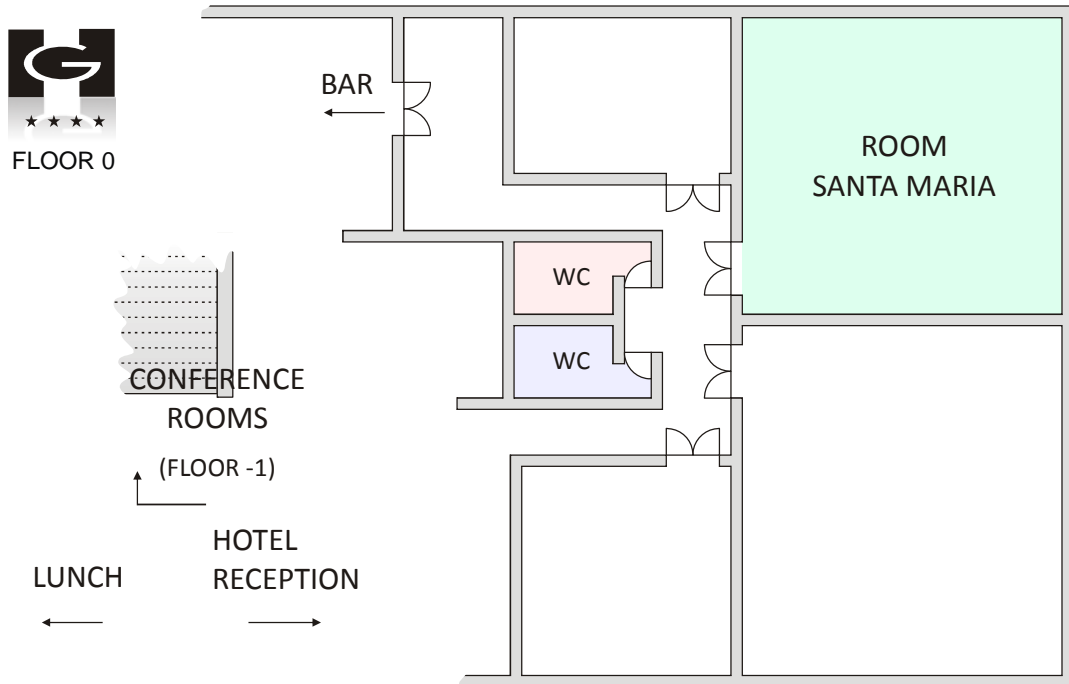


CONFERENCE ROOMS

The Conference Rooms are downstairs, in Floor -1.



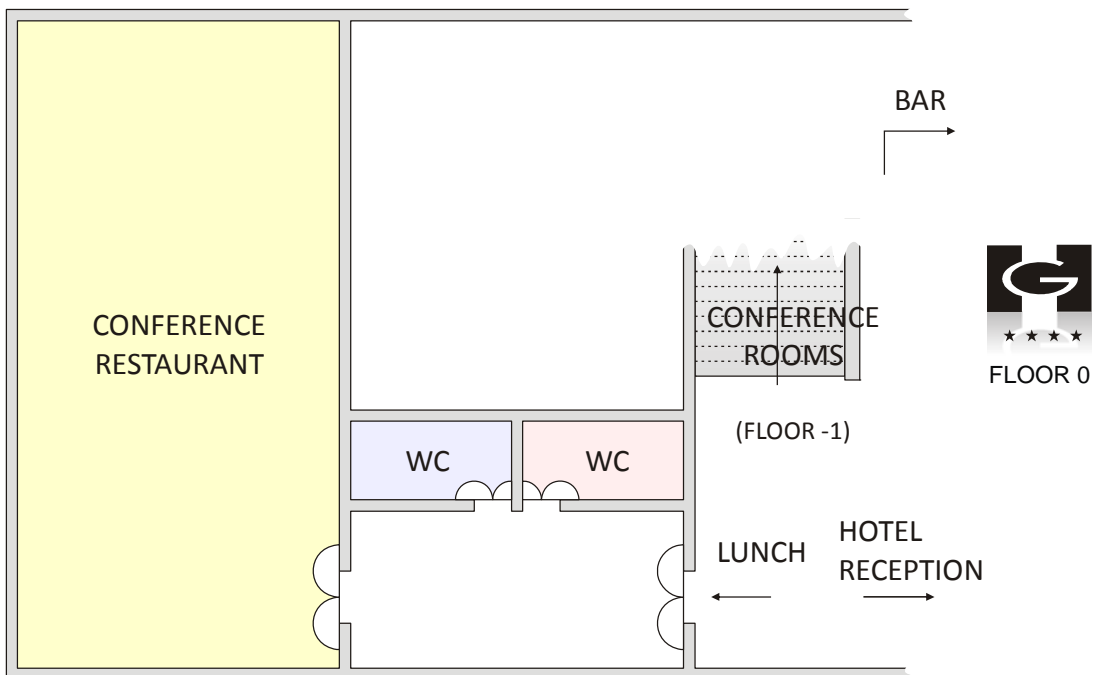
The Doctoral Consortium of ISAmI 2010 will take place in Room Santa Maria, in the left of the Hotel Bar, in the Entrance Floor (Floor 0).



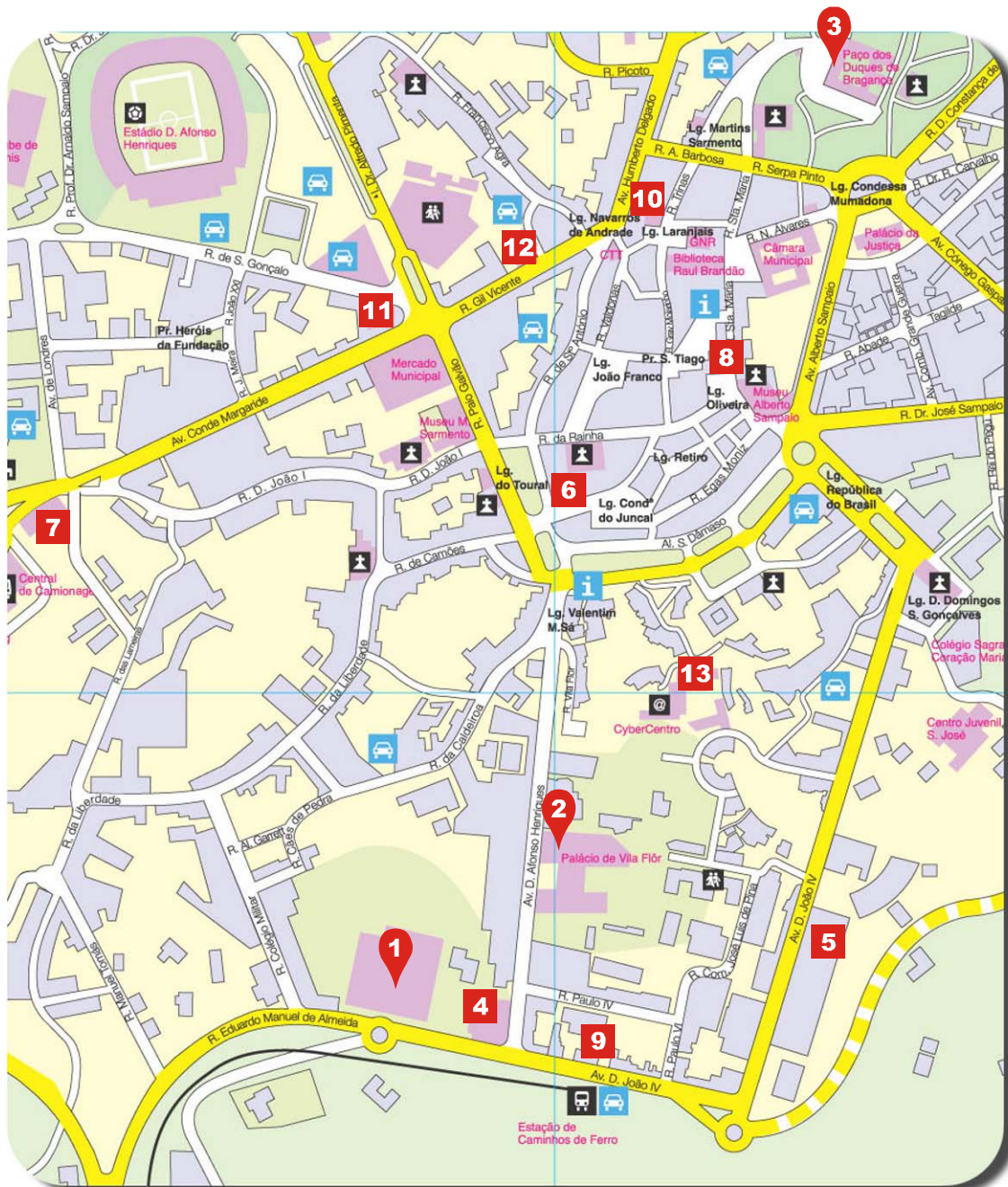
LUNCHES AND COFFEE BREAKS

Coffee Breaks will be served in Floor -1, in the Conference Room Hall.

Conference Lunches will take place in the Restaurant, in Floor 0 (the Entrance Floor).



CITY MAP



- | | | | |
|-----------|---|-------------------------|--|
| 1 | HOTEL DE GUIMARÃES **** | Conference Venue | |
| 2 | VILA FLOR CULTURAL CENTRE | 3 | DUQUES DE BRAGANÇA PALACE |
| 4 | Hotel Fundador *** | 5 | Villa Hotel **** |
| 6 | Hotel Toural **** | 7 | Hotel IBIS Guimarães ** |
| 8 | Pousada da Oliveira | 9 | Residencial D. João IV |
| 10 | Pensão Residencial das Trinas | 11 | Pensão Residencial S. Mamede |
| 12 | Albergaria Residencial Palmeiras | 13 | Pousada da Juventude de Guimarães |

SOCIAL PROGRAMME

The Social Programme includes a walk to the city centre, starting from Hotel de Guimarães and ending in the Sacred Hill, where is the Guimarães Castle and the Duques de Bragança Palace.



At the end of the walk, there will be a bus to bring participants back to the Hotel de Guimarães and to the Conference Dinner venue.

At the end of the Conference dinner, there will be a bus available to take participants back to Hotel de Guimarães.



For those not wanting to make the city walk, there will be a bus to take participants from the Hotel de Guimarães to the Conference dinner venue.

PLENARY SPEAKERS

We are proud to present the following invited speakers:

- Magdy Bayoumi, from University of Louisiana, USA;
- Hagit Shatkay, from Queens University, Ontario, Canada;
- Carlos Ramos, from Porto Polytechnic Institute, Portugal;
- Claudine Chaouiya, from Instituto Gulbenkian de Ciência, Portugal;
- Ajith Abraham, from MIR Labs, Europe.

All plenary talks of our invited speakers are open to all attendants of ISAmI, SOCO and IWPACBB Conferences.

Magdy Bayoumi

University of Louisiana, USA

Proposed by SOCO 2010



Magdy A. Bayoumi is Director of The Centre for Advanced Computer Studies (CACS), and Department Head of the Computer Science Department at the University of Louisiana at Lafayette (UL Lafayette). He is also the Z.L. Loflin Eminent Scholar Endowed Chair Professor in Computer Science. Dr. Bayoumi has been a faculty member in CACS since 1985. He received B.Sc. and M.Sc. degrees in Electrical Engineering from Cairo University, Egypt; M.Sc. degree in Computer Engineering from Washington University, St. Louis; and Ph.D. degree in Electrical Engineering from the University of Windsor, Canada. Dr. Bayoumi is the recipient of the 2009 IEEE Circuits and Systems Meritorious Service Award. He is also the recipient of the IEEE Circuits and Systems Society 2003 Education Award, and he is an IEEE Fellow.

Wireless Sensors Networks: Current and Future Challenges

Computers, communication, and sensing technologies are converging to change the way we live, interact, and conduct business. Wireless sensor networks reflect such convergence. These networks are based on collaborative efforts of a large number of sensor nodes. They should be low-cost, low-power, and multifunction. These nodes have the capabilities of sensing, data processing, and communicating. Sensor networks have a wide range of applications, from monitoring sensors in industrial facilities to control and management of energy applications to military and security fields. Because of the special features of these networks, new network technologies are needed for cost effective, low power, and reliable communication. These network protocols and architectures should take into consideration the special features of sensor networks such as: the large number of nodes, their failure rate, limited power, high density, etc. In this talk the impact of wireless sensor networks will be addressed, several of the design and communication issues will be discussed, and a case study of a current project of using such networks in drilling and management off-shore oil and natural gas in the gulf region will be given.



Hagit Shatkay

Queens University, Ontario, Canada

Proposed by IWPACBB 2010

Hagit Shatkay is the director of the Machine Learning and Computational Biology Lab in the School of Computing, at Queen's University, Kingston, Ontario. Her research is in the area of machine learning and its applications to biomedical data. She has been an active member of the bio-text research community since its early days, where her work focuses primarily on biomedical information retrieval, and on the integration of text into the biological data mining process.

She serves on multiple program committees and editorial forums, including co-chairing the BioLINK SIG at ISMB since 2005, area chair for the Text Mining track at ISMB, steering committee for TREC Genomics and many others. She has authored over fifty publications in the areas of Machine Learning, Biomedical Text Mining and Computational Biology.

Prior to joining Queen's University, she was an Informatics Research scientist with the Informatics Research group at Celera Genomics. She holds a BSc and an MSc in Computer Science from the Hebrew University of Jerusalem, and a PhD in Computer Science from Brown University.

On Text, Machine Learning, and Life (at the molecular level)

The genomic era, in which we live since the sequencing of the human genome, is characterized by tremendous amounts of biomedical data, and a significant increase in the number of related scientific publications.

Much biomedical knowledge is hidden within the abundant literature. The ability to rapidly and effectively survey the literature can support both the design and the interpretation of large-scale experiments.

A variety of machine-learning methods are being applied to the biomedical literature in an attempt to meet these goals. The talk will discuss several such applications, focusing on information retrieval methods, and on specific biological problems that can be addressed through the use of text.

Carlos Ramos

Porto Polytechnic Institute, Portugal

Proposed by ISAmI 2010



Carlos Ramos is Vice-President of the Polytechnic Institute of Porto (IPP), where he was the former Director of GECAD (the Knowledge Engineering and Decision Support Research Centre), being currently the coordinator of the Intelligent Systems Division, and tenured coordinator professor at the Institute of Engineering (ISEP/IPP). His main areas of interest are ambient intelligence, knowledge-based systems, decision support systems, and intelligent energy systems. Recently he is developing work in the frontier of Decision Support Systems and Ambient Intelligence, proposing a new architecture for Ambient Intelligence systems and using it in non-conventional applications (Group Decision Support; Control Centres; Paragliding navigation, etc.). He has more than 50 papers in scientific journals and magazines, and more than 250 papers in scientific conferences.

Ambient Intelligence for the Decision Society

Ambient Intelligence (AmI) deals with a new world of ubiquitous computing devices, where physical environments interact intelligently and unobtrusively with people. These environments should be aware of people's needs, customizing requirements and forecasting behaviours. AmI environments can be diverse, such as homes, offices, meeting rooms, schools, hospitals, control centres, vehicles, tourist attractions, stores, sports facilities, and music devices. Artificial Intelligence research aims to include more intelligence in AmI environments, allowing better support for humans and access to the essential knowledge for making better decisions when interacting with these environments. In this talk it will be explained how Ambient Intelligence systems can support decisions of human beings. Several application scenarios will be presented, including in Group Decision Making, Tourism, Control Centres, and Sports.



Claudine Chaouiya

Instituto Gulbenkian de Ciência, Portugal

Proposed by IWPACBB 2010

Claudine Chaouiya obtained her PhD in Computer Sciences in 1992 from Nice Sophia Antipolis University, France. She held a visiting position as assistant professor in Computer Science in Brazil from April 1993 to July 1994. She got an assistant professor position at the University of New Caledonia in September 1994. Her research interest was related to the modelling and validation of 'man-made' systems such as manufacturing systems or communication networks. Eight years ago, she went back to France, in Marseille as an assistant professor position at the ESIL (Luminy Advanced Engineers School, Mediterranean University). There, in collaboration with Denis Thieffry, she began to study logical models of gene interaction networks. She has developed methods to model and analyse biological networks, focusing on dynamical properties of these complex systems. In July 2008, she joined the Instituto Gulbenkian de Ciência in Portugal, where she has set up her own group, working on feasible solutions to handle ever larger regulatory networks. With this intent, specific methods are developed within the logical and the Petri net frameworks. In a close collaboration with biologists, methodological developments are systematically challenged with real case applications, specifying and analysing models for the control of cell proliferation and differentiation.

Logical models provide insights into regulatory networks dynamics

As biologists delineate ever larger molecular interaction networks involved in essential cellular processes, there is a crucial need for mathematical and computational models to assess dynamical properties of these complex networks. Providing qualitative yet informative models, the generalized logical formalism is well adapted to cope with the lack of quantitative, detailed data on regulatory mechanisms. I will introduce the logical formalism and provide a broad overview of published logical models.

Although logical models are simplified abstractions of the reality, assessing their dynamical properties is still challenging since the number of states grows exponentially with the number of regulatory components. In this context, we develop dedicated techniques to handle the analysis of large logical models. In particular, I will discuss the dynamical role of feedback circuits and present a reduction method.

Finally, I will present the application of these methods to an integrated, comprehensive model of the regulatory network and signalling pathways controlling differentiation of T helper cells.

Ajith Abraham

MIR Labs, Europe

Proposed by SOCO 2010



Ajith's research and development experience includes over 19 years in the Industry and Academia. He works in a multi-disciplinary environment involving soft computing, network security, sensor networks, e-commerce, Web intelligence, Web services, computational grids, data mining and applied to various real world problems. He has given more than 30 plenary lectures and conference tutorials in these areas. He has published over 500 publications and some of the works have also won best paper awards at International conferences and also received several citations. Dr. Ajith Abraham co-Chairs the IEEE SMC Technical Committee on Soft Computing. Currently he is also coordinating the activities of the Machine Intelligence Research Labs (MIR Labs), International Scientific Network of Excellence, which has members from over 50 countries.

Combating Terrorism: Soft Computing Technologies and Challenges

Counter-terrorism has become an important challenge in recent times. In this talk, we present some soft computing approaches to discover terrorist threats and also present some tools to combat cyber terrorism. We first illustrate the concept of social networks and how such networks could be used for analysis (relationships, evolution etc.) with a focus on complexity reduction of huge networks. Further, we present some of the challenges in designing efficient cyber terrorism detection programs using several intelligent techniques. We depict how hacker behaviour could be captured using hidden Markov model and predict possible serious attacks with an online risk assessment. Most of these approaches could be easily deployed in a mobile environment.

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International Symposium on Ambient Intelligence

Programme

	Wednesday June 16 th , 2010	Thursday June 17 th , 2010	Friday June 18 th , 2010
08:00	Registration	Registration	Registration
09:00	Opening Session	Plenary Session	Plenary Session
10:00	Plenary Session Magdy Bayoumi	Carlos Ramos	Ajith Abraham
11:00	Coffee Break	Coffee Break	Coffee Break
12:00	Session A Artificial Intelligence for Aml	Session D Ambient Assisted Living	Session F Context Aware Computing
13:00	Lunch	Lunch	Lunch
14:00	Plenary Session	Plenary Session	Session G
15:00	Hagit Shatkay	Claudine Chaouiya	Applications
16:00	Coffee Break	Coffee Break	Coffee Break
17:00	Session B Poster Session	Session E Agent & Multiagent Systems for Aml	Closing Session
18:00	Session C Doctoral Consortium		
19:00		Social Program	
20:00	Welcome Reception	Conference Banquet	

ISAmI 2010 participants have full admission to the other scientific symposiums as well as to all plenary sessions.

	Wednesday June 16 th , 2010
8:00	Registration
9:00	Opening Session
9:30	Plenary Session
	Room Flores
	Chair: Emilio Corchado
	<ul style="list-style-type: none"> • <i>"Wireless Sensors Networks: Current and Future Challenges"</i> Magdy Bayoumi University of Louisiana, USA
11:00	Coffee Break
11:30	Session A Artificial Intelligence for Aml
	Room Flores
	Chair: Dante Tapia
	<ul style="list-style-type: none"> • <i>"Ontology and SWRL-based Learning Model for Home Automation Controlling"</i> Pablo A. Valiente-Rocha, Adolfo Lozano-Tello • <i>"Accurate Temporal Relationships in Sequences of User Behaviours in Intelligent Environments"</i> Asier Aztiria, Juan Augusto, Rosa Basagoiti, Alberto Izaguirre • <i>"A Study on Autonomic Decision Method for Smart Gas Environments in Korea"</i> Jeong Seok Oh, Jang Sik Park, Jeong Rock Kwon • <i>"An intelligent domotics system to automate user actions"</i> Natalie Ché, Niels Pardons, Yves Vanrompay, Davy Preuveneers, Yolande Berbers • <i>"Automatic Generation of Personal Maps"</i> José Teixeira, Carlos Bento
13:00	Lunch

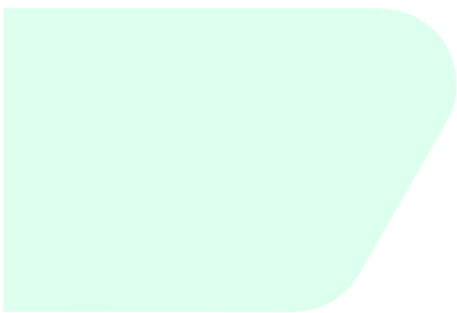
Wednesday June 16 th , 2010		
14:30	Plenary Session	
	Room Flores	
	Chair: Florentino Fdez-Riverola	
	<ul style="list-style-type: none"> • <i>“On Text, Machine Learning, and Life (at the molecular level)”</i> Hagit Shatkay Queens University, Ontario, Canada 	
16:00	Coffee Break	
16:30	Session B: Poster Session	Session C: Doctoral Consortium
	Room Flores	Room Santa Maria
	Chairs: Luís Lima, Ricardo Costa	Chairs: Juan Augusto, Juan Corchado
	<ul style="list-style-type: none"> • <i>“Sentient: An approach to Ambient Assisted Emotional Regulation”</i>, A. Garzo, I. Montalbán, E. León, S. Schlatter • <i>“The OSAmI-Commons project: Deploying a Contextual-awareness Edutainment Service”</i>, S. Molaes, A. Vilas, R. Redondo, J. Arias, G. Balsa • <i>“A Platform with Combined Environmental and Physiological Wireless Data Acquisition for AAL Applications”</i>, O. Gama, H. Martins, C. Pereira, S. Soares, A. Valente, V. Ribeiro, P. Carvalho, P. Mendes • <i>“Smart ambient systems for health monitoring at home”</i>, E. Campo, M. Chan, S. Bonhomme, D. Estève • <i>“Ambient Intelligence and CSCL for Modelling e-Learning Scenarios”</i>, O. García, C. Zato, D. Tapia, A. Luis • <i>“Design and Implementation of a control and guided system for mobile device by means of interfaces adapted to severe physical disability”</i>, A. Alonso, M. Jiménez, L. Val, R. Rosa, A. Izquierdo • <i>“HELTRA - The new help system for users of automatic translation tools”</i>, E. Bittencourt, S. Schosslund, R. Landmann, D. Aguiar, A. Oliveira • <i>“ORIGAmI - Ontology Reuse for Idea Generation in Ambient Intelligent Environments”</i>, C. Freitas, C. Ramos, J. Alferes 	<ul style="list-style-type: none"> • <i>“Methodology for the Integration of Information, Communication and Automation Technologies in Housing Rehabilitation”</i> Sara Eloy, Renato Nunes, Isabel Plácido, José Duarte • <i>“Why Traders Need Ambient Intelligence”</i> Javier Fernández, Juan Augusto, Ralf Seepold, Natividad Madrid • <i>“Awareness Models for the Development of Ubiquitous Systems”</i> Jose Martinez, F.L. Gutierrez Vela, Cesar Collazos • <i>“A Statistical-Relational Activity Recognition Framework for Ambient Assisted Living Systems”</i> Rim Helaoui, Mathias Niepert, Heiner Stuckenschmidt
19:30	Welcome Reception	

	Thursday June 17 th , 2010
8:30	Registration
9:00	Plenary Session Room Flores Chairs: Juan Augusto, Juan Corchado <ul style="list-style-type: none"> • <i>"Ambient Intelligence for the Decision Society"</i> Carlos Ramos Porto Polytechnic Institute, Portugal
10:30	Coffee Break
11:00	Session D Ambient Assisted Living Room Flores Chair: Alexei Sharpanskykh <ul style="list-style-type: none"> • <i>"A Multi-User Smart System for Reminding Medication"</i> Rui Marques • <i>"User Recognition in AAL Environments"</i> Ricardo Costa, Paulo Novais, Ângelo Costa, Luís Lima, José Neves • <i>"Domotic Hardware Infrastructure in PERSONA Project"</i> Vicenç Soler, Andrés Peñalver, Simone Zuffanelli, Jordi Roig, Jordi Aguiló • <i>"A user-oriented and context-aware service orchestration framework for dynamic home automation systems"</i> Thomas Coopman, Wouter Theetaert, Davy Preuveneers, Yolande Berbers • <i>"Modeling and Simulating Ambient Assisted Living Environments - A Case Study"</i> Tim Laue, Christoph Stahl • <i>"Adaptive Experience Sampling: Addressing the Dynamic Nature of In-Situ User Studies"</i> Martijn Vastenburg, Natalia Romero Herrera • <i>"Patient Monitoring under an Ambient Intelligence Setting"</i> Pedro Gomes, Alberto Marques, Ângelo Costa, Paulo Novais, José Neves
13:00	Lunch

	Thursday June 17 th , 2010
14:30	Plenary Session Room Flores Chair: Miguel Rocha <ul style="list-style-type: none"> • <i>“Logical models provide insights into regulatory networks dynamics”</i> Claudine Chaouiya Instituto Gulbenkian de Ciência, Portugal
16:00	Coffee Break
16:30	Session E Agent & Multiagent Systems for Aml Room Flores Chair: Ichiro Satoh <ul style="list-style-type: none"> • <i>“Model-driven development for ubiquitous MAS”</i> Jorge Agüero, Miguel Rebollo, Carlos Carrascosa, Vicente Julían • <i>“A Framework for Modeling and Analysis of Ambient Agent Systems: Application to an Emergency Case”</i> Tibor Bosse, Alexei Sharpanskykh • <i>“Semantic and implicit HCI: A step forward Aml delivery at home for patient experience”</i> Ana Calvo-Alcalde, Juan Andrés-Gutiérrez, Jesús Vegas, Rafael Cano-Parra, Esteban Pérez-Castrejón • <i>“Multiagent systems and wearable devices: Helping people live healthier”</i> Juan Fraile, Carolina Zato, Oscar Gil, Fernando de la Prieta • <i>“GLSS - Group Learning in Shared Spaces considering aspects like emotion, mood and personality”</i> Goreti Marreiros, Ricardo Santos, Carlos Ramos • <i>“Agency, Ambience, Assistance: A Framework for Practical AAL”</i> Richard Tynan, G.M.P. O’Hare, Michael O’Grady
18:30	Social Program
20:00	Conference Banquet

	Friday June 18 th , 2010
8:30	Registration
9:00	Plenary Session Room Flores Chair: Emilio Corchado <ul style="list-style-type: none"> • <i>“Combating Terrorism: Soft Computing Technologies and Challenges”</i> Ajith Abraham MIR Labs, Europe
10:30	Coffee Break
11:00	Session F Context Aware Computing Room Flores Chair: Davy Preuveneers <ul style="list-style-type: none"> • <i>“Autonomous and context-aware scheduling for public displays using place-based tag clouds”</i> Fernando Ribeiro, Rui José • <i>“What Context Matters? Towards Multidimensional Context Awareness”</i> V́ctor Penela, Carlos Ruiz, Joś Ǵmez-Ṕrez • <i>“Toward a Behavioral Decomposition for Context-awareness and Continuity of Services”</i> Nicolas Ferry, St́phane Lavirotte, Jean-Yves Tigli, Gáetan Rey, Michel Riveill • <i>“An Agent-based Framework for Context-aware Digital Signage”</i> Ichiro Satoh • <i>“Context Triggered Experience Sampling”</i> David Keyson • <i>“Assessing the usefulness and acceptance of HERMES MyFuture system in two European Countries”</i> Cristina Buiza, Ana Navarro, Mari Gonzalez, Arjan Geven, Manfred Tscheligi, Sebastian Prost
13:00	Lunch

	Friday June 18 th , 2010
14:30	<p>Session G Applications</p> <p>Room Flores</p> <p>Chair: Rui José</p> <ul style="list-style-type: none"> • <i>“EVATAR – A Prototyping Middleware For Embodying Virtual Agents To Autonomous Robots”</i> Nikolaos Dipsis, Kostas Stathis • <i>“Context Aware Management Platform to Invoke remote or local e Learning Services”</i> Valérie Monfort, Fayssal Felhi • <i>“Accurate Human Limb Angle Measurement in Telerehabilitation: Sensor fusion through Kalman, LMS and RLS Adaptive Filtering”</i> Alberto Olivares, J.M. Górriz, J. Ramírez, Gonzalo Olivares • <i>“Rewiring Strategies for Changing Environments”</i> Wim Laurier, Geert Vanderhulst, Geert Poels, Kris Luyten • <i>“A Framework to Enable Two-Layer Inference for Ambient Intelligence”</i> Xiang Su, Davide Fucci, Jukka Riekkii • <i>“Helping Elderly People and Persons with Disability to Access the Information Society”</i> Diego Gachet, Manuel de Buenaga, Víctor Padrón, M. Alanbari
16:30	Coffee Break
17:00	Closing Session



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11:00	Coffee Break	Coffee Break	Coffee Break
12:00	Session A Agents & Multiagent Systems	Session D Intelligent Systems	Session F Hybrid Systems
13:00	Lunch	Lunch	Lunch
14:00	Plenary Session	Plenary Session	Session G
15:00	Hagit Shatkay	Claudine Chaouiya	Evolutionary Computing
16:00	Coffee Break	Coffee Break	Coffee Break
17:00	Session B Hybrid Intelligent Systems & Applications	Session E Applications	Closing Session
18:00	Session C Energy & Environmental Applications	Social Program	
19:00	Welcome Reception	Conference Banquet	
20:00			

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8:00	Registration
9:00	Opening Session
9:30	Plenary Session
	Room Flores
	Chair: Emilio Corchado
	<ul style="list-style-type: none"> • <i>“Wireless Sensors Networks: Current and Future Challenges”</i> Magdy Bayoumi University of Louisiana, USA
11:00	Coffee Break
11:30	Session A Agents & Multiagent Systems
	Room Funchal
	Chair: Victor Alves
	<ul style="list-style-type: none"> • <i>“A Security Proposal Based on a Real Time Agent to Protect Web Services Against DoS Attack”</i> Cristian Pinzón, Angélica González, Manuel Rubio, Javier Bajo • <i>“Approaching Real-Time Intrusion Detection through MOVICAB-IDS”</i> Martí Navarro, Álvaro Herrero, Emilio Corchado, Vicente Julián • <i>“Hybrid Dynamic Planning Mechanism for Virtual Organizations”</i> Sara Rodríguez, Vivian López, Javier Bajo • <i>“Combinatorial Auctions for Coordination and Control of Manufacturing Multiagent Systems: Updating Prices Methods”</i> Juan Villahoz, Ricardo Martínez, Alberto Arauzo
13:00	Lunch

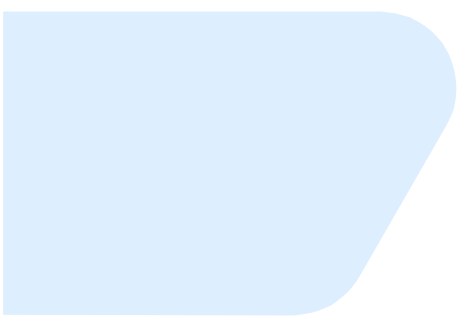
	Wednesday June 16 th , 2010
14:30	Plenary Session Room Flores Chair: Florentino Fdez-Riverola <ul style="list-style-type: none"> • <i>“On Text, Machine Learning, and Life (at the molecular level)”</i> Hagit Shatkay Queens University, Ontario, Canada
16:00	Coffee Break
16:30	Session B Hybrid Intelligent Systems & Applications Room Funchal Chairs: Ajith Abraham, Tribeni Banerjee <ul style="list-style-type: none"> • <i>“Implementation of a New Hybrid Methodology for Fault Signal Classification Using Short -Time Fourier Transform and Support Vector Machines”</i> Tribeni Banerjee, Swagatam Das, Joydeb Roychoudhury, Ajith Abraham • <i>“Advances in Clustering Search”</i> Tarcisio Costa, Alexandre Oliveira, Luiz Lorena • <i>“WSAN QoS Driven Control Model for Building Operations”</i> Alie Mady, Menouer Boubekour, Gregory Provan • <i>“Intelligent Hybrid Control Model for Lighting Systems Using Constraint-Based Optimisation”</i> Alie Mady, Menouer Boubekour, Gregory Provan, Conor Ryan, Kenneth Brown
18:00	Session C Energy & Environmental Applications Room Funchal Chair: Ángel Arroyo <ul style="list-style-type: none"> • <i>“Greenhouse Heat Load Prediction using a Support Vector Regression Model”</i> J. P. Coelho, J. Boaventura Cunha, P. de Moura Oliveira, E. J. Solteiro Pires • <i>“Evaluating the low quality measurements in Lighting Control Systems”</i> Jose Villar, Enrique de la Cal, Javier Sedano, Marco García • <i>“Soft Computing Models for an Environmental Application”</i> Ángel Arroyo, Emilio Corchado, Verónica Tricio • <i>“Fuzzy optimization of start-up operations for combined cycle power plants”</i> Ilaria Bertini, Alessandro Pannicelli, Stefano Pizzuti
19:30	Welcome Reception

	Thursday June 17 th , 2010
8:30	Registration
9:00	Plenary Session
	Room Flores
	Chairs: Juan Augusto, Juan Corchado
	<ul style="list-style-type: none"> • <i>“Ambient Intelligence for the Decision Society”</i> Carlos Ramos Porto Polytechnic Institute, Portugal
10:30	Coffee Break
11:00	Session D
	Intelligent Systems
	Room Funchal
	Chair: Javier Bajo
	<ul style="list-style-type: none"> • <i>“A software tool for harmonic distortion simulation caused by non-linear household loads”</i> J. Baptista, R. Morais, A. Valente, S. Soares, J. Bulas-Cruz, M.J.C.S. Reis • <i>“A Multiobjective Variable Neighborhood Search for Solving the Motif Discovery Problem”</i> David Gonzalez–Alvarez, Miguel Vega–Rodriguez, Juan Gomez–Pulido, Juan Sanchez–Perez • <i>“Solving the Routing and Wavelength Assignment Problem in WDM Networks by using a Multiobjective Variable Neighborhood Search Algorithm”</i> Álvaro Rubio-Largo, Miguel Vega-Rodríguez, Juan Gómez-Pulido, Juan Sánchez-Pérez • <i>“iGenda: an event scheduler for common users and centralised systems”</i> Ângelo Costa, Juan Laredo, Paulo Novais, Juan Corchado, José Neves • <i>“Scalable Intelligence and Adaptation in Scheduling DSS”</i> Ana Almeida, Constantino Martins, Luiz Faria
13:00	Lunch

	Thursday June 17 th , 2010
14:30	Plenary Session Room Flores Chair: Miguel Rocha <ul style="list-style-type: none"> • <i>“Logical models provide insights into regulatory networks dynamics”</i> Claudine Chaouiya Instituto Gulbenkian de Ciência, Portugal
16:00	Coffee Break
16:30	Session E Applications Room Funchal Chair: Ana Almeida <ul style="list-style-type: none"> • <i>“An optimized 3D surface reconstruction method using spacial Kalman filtering of projected line patterns”</i> An-Qi Shen, Ping Jiang • <i>“Decision Making and Quality-of-Information”</i> Paulo Novais, Maria Salazar, Jorge Ribeiro, Cesar Analide, José Neves • <i>“The gene expression programming applied to demand forecast”</i> Evandro Bittencourt, Sidney Schosslund, Raul Landmann, Dênio Aguiar, Adilson Oliveira • <i>“Brain Magnetic Resonance Spectroscopy Classifiers”</i> Susana Oliveira, Jaime Rocha, Victor Alves • <i>“A bio-inspired ensemble model for food industry applications”</i> Bruno Baruque, Emilio Corchado, Jordi Rovira
18:30	Social Program
20:00	Conference Banquet

	Friday June 18 th , 2010								
8:30	Registration								
9:00	Plenary Session Room Flores Chair: Emilio Corchado <ul style="list-style-type: none"> • <i>“Combating Terrorism: Soft Computing Technologies and Challenges”</i> Ajith Abraham MIR Labs, Europe 								
10:30	Coffee Break								
11:00	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Session F</td> <td style="width: 50%;">Hybrid Systems</td> </tr> <tr> <td colspan="2">Room Funchal</td> </tr> <tr> <td colspan="2">Chair: Michał Woźniak</td> </tr> <tr> <td colspan="2"> <ul style="list-style-type: none"> • <i>“GRASP Algorithm for Optimization of Grids for Multiple Classifier System”</i> Tomasz Kacprzak, Krzysztof Walkowiak, Michał Woźniak • <i>“A Scatter Search Based Approach to Solve the Reporting Cells Problem”</i> Sónia Almeida-Luz, Miguel Vega-Rodríguez, Juan Gómez-Pulido, Juan Sánchez-Pérez • <i>“Catalog Segmentation by Implementing Fuzzy Clustering and Mathematical Programming Model”</i> Amir Hassan Zadeh, Hamed Maleki, Kamran Kianfar, Mehdi Fathi, Mohammad Saeed Zaeri • <i>“Multi-Network-Feedback-Error-Learning with Automatic Insertion”</i> Paulo Ribeiro, Areolino Neto, Alexandre Oliveira </td> </tr> </table>	Session F	Hybrid Systems	Room Funchal		Chair: Michał Woźniak		<ul style="list-style-type: none"> • <i>“GRASP Algorithm for Optimization of Grids for Multiple Classifier System”</i> Tomasz Kacprzak, Krzysztof Walkowiak, Michał Woźniak • <i>“A Scatter Search Based Approach to Solve the Reporting Cells Problem”</i> Sónia Almeida-Luz, Miguel Vega-Rodríguez, Juan Gómez-Pulido, Juan Sánchez-Pérez • <i>“Catalog Segmentation by Implementing Fuzzy Clustering and Mathematical Programming Model”</i> Amir Hassan Zadeh, Hamed Maleki, Kamran Kianfar, Mehdi Fathi, Mohammad Saeed Zaeri • <i>“Multi-Network-Feedback-Error-Learning with Automatic Insertion”</i> Paulo Ribeiro, Areolino Neto, Alexandre Oliveira 	
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13:00	Lunch								

	Friday June 18 th , 2010
14:30	<p>Session G Evolutionary Computing</p> <p>Room Funchal</p> <p>Chairs: Paulo Moura Oliveira, Eduardo Solteiro Pires</p> <ul style="list-style-type: none"> • <i>“A Parallel Cooperative Evolutionary Strategy for Solving the Reporting Cells Problem”</i> Álvaro Rubio-Largo, David González-Álvarez, Miguel Veja-Rodríguez, Sónia Almeida-Luz, Juan Gómez-Pulido, Juan Sánchez-Pérez • <i>“Optimization of Parallel Manipulators using Evolutionary Algorithms”</i> Manuel Barbosa, E.J. Solteiro Pires, António Lopes • <i>“Multi-Criteria Manipulator Trajectory Optimization Based on Evolutionary Algorithms”</i> E. J. Solteiro Pires, P. B. de Moura Oliveira, J. A. Tenreiro Machado • <i>“Combining Heuristics Backtracking and Genetic Algorithm to Solve the Container Loading Problem with Weight Distribution”</i> Luiz Araújo, Plácido Pinheiro • <i>“A Decision Support System for Logistics Operations”</i> María R-Moreno, David Camacho, David Barrero, Miguel Gutierrez
16:30	Coffee Break
17:00	Closing Session



IWPACBB 2010

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4th International Workshop on Practical
Applications of Computational Biology & Bioinformatics

Programme

	Wednesday June 16 th , 2010	Thursday June 17 th , 2010	Friday June 18 th , 2010
08:00	Registration	Registration	Registration
09:00	Opening Session	Plenary Session Carlos Ramos	Plenary Session Ajith Abraham
10:00	Plenary Session Magdy Bayoumi	Coffee Break	Coffee Break
11:00	Coffee Break	Session D Data Mining and data integration	Session F Biomedical Applications
12:00	Session A Microarrays		
13:00	Lunch	Lunch	Lunch
14:00	Plenary Session Hagit Shatkay	Plenary Session Claudine Chaouiya	
15:00	Coffee Break	Coffee Break	
16:00	Session B Phylogenetics and sequence analysis	Session E Bioinformatics applications	Coffee Break
17:00	Session C Poster Session		Closing Session
18:00		Social Program	
19:00	Welcome Reception		
20:00		Conference Banquet	

IWPACBB 2010 participants have full admission to the other scientific symposiums as well as to all plenary sessions.

	Wednesday June 16 th , 2010
8:00	Registration
9:00	Opening Session
9:30	Plenary Session Room Flores Chair: Emilio Corchado
	<ul style="list-style-type: none"> <i>"Wireless Sensors Networks: Current and Future Challenges"</i> Magdy Bayoumi University of Louisiana, USA
11:00	Coffee Break
11:30	Session A Microarrays Room Sete Cidades Chair: Miguel Rocha
	<ul style="list-style-type: none"> <i>"Highlighting differential gene expression between two condition microarrays through heterogeneous genomic data: application to Lesihmania infantum stages comparison"</i> Liliana Kleine, Victor Ruiz <i>"An experimental evaluation of a novel stochastic method for iterative class discovery on real microarray datasets"</i> Hector Gomez, Daniel Glez-Peña, Miguel Reboiro-Jato, Reyes Pavon, Fernando Diaz, Florentino Fdez-Riverola <i>"Automatic workflow during the reuse phase of a CBP system applied to microarray analysis"</i> Juan De Paz, Ana Gil, Emilio Corchado <i>"A comparative study of microarray data classification methods based on ensemble biological relevant gene sets"</i> Miguel Reboiro-Jato, Daniel Glez-Peña, Juan Gálvez, Rosalía Fidalgo, Fernando Diaz, Florentino Fdez-Riverola
13:00	Lunch


	Wednesday June 16 th , 2010
14:30	Plenary Session Room Flores Chair: Florentino Fdez-Riverola <ul style="list-style-type: none"> • <i>“On Text, Machine Learning, and Life (at the molecular level)”</i> Hagit Shatkay Queens University, Ontario, Canada
16:00	Coffee Break
16:30	Session B Phylogenetics and sequence analysis Room Sete Cidades Chair: Fernando Diaz <ul style="list-style-type: none"> • <i>“Two results on distances for phylogenetic networks”</i> Gabriel Cardona, Mercè Llabrés, Francesc Rosselló • <i>“Cramér coefficient in genome evolution”</i> Vera Afreixo, Adelaide Freitas • <i>“An application for study tandem repeats in orthologous genes”</i> José Lousado, José Oliveira, Gabriela Moura, Manuel Santos • <i>“Accurate selection of models of evolution”</i> Mateus Patricio, Federico Abascal, Rafael Zardoya, David Posada
18:00	Session C Poster Session Room Sete Cidades Chair: Daniel Glez-Peña <ul style="list-style-type: none"> • <i>“An efficient multi-class support vector machine classifier for protein fold recognition”</i>, Wiesław Chmielnicki, Katarzyna Stąpor, Irena Roterman-Konieczna • <i>“Pharmacophore-based screening as a clue for the discovery of new P-glycoprotein inhibitors”</i>, Andreia Palmeira, Freddy Rodrigues, Emília Sousa, Madalena Pinto, Helena Vasconcelos, Miguel Xavier • <i>“Scalable Phylogenetics Through Input Preprocessing”</i>, Roberto Blanco, Elvira Mayordomo, Esther Montes, Rafael Mayo, Angelines Alberto • <i>“The median of the distance between two leaves in a phylogenetic tree”</i>, Arnau Mir, Francesc Rosselló • <i>“In Silico AFLP: an Application to Assess what is Needed to Resolve a Phylogeny”</i>, María García-Pereira, Armando Caballero, Humberto Quesada • <i>“A hybrid scheme to solve the protein structure prediction problem”</i>, José Tudela, Julio Ortega, Mancía Anguita • <i>“Feature Selection Using Multi-Objective Evolutionary Algorithms: Application to Cardiac SPECT Diagnosis”</i>, António Gaspar-Cunha • <i>“Employing compact intra-genomic language models to predict genomic sequences and characterize their entropy”</i>, Sérgio Deusdado, Paulo Carvalho
19:30	Welcome Reception

	Thursday June 17 th , 2010
8:30	Registration
9:00	Plenary Session
	Room Flores
	Chairs: Juan Augusto, Juan Corchado
	<ul style="list-style-type: none"> • <i>“Ambient Intelligence for the Decision Society”</i> Carlos Ramos Porto Polytechnic Institute, Portugal
10:30	Coffee Break
11:00	Session D
	Data Mining and data integration
	Room Sete Cidades
	Chair: Sara Madeira
	<ul style="list-style-type: none"> • <i>“Predicting the start of protein alpha-helices using Machine Learning algorithms”</i> Rui Camacho, Nuno Fonseca, Vítor Costa, Natacha Rosa, Ana Ferreira, Vânia Guimarães, Alexandre Magalhães, Miguel Sousa • <i>“A Data Mining Approach for the detection of High-Risk Breast Cancer Groups”</i> Orlando Anunciação, Bruno Gomes, Susana Vinga, Jorge Gaspar, Arlindo Oliveira, José Rueff • <i>“GRASP for Instance Selection in medical data sets”</i> Alfonso Fernandez-Timon, Abraham Duarte, Rosa Hernandez, Angel Sanchez • <i>“Expanding Gene-based PubMed Queries”</i> Sérgio Matos, Joel Arrais, José Oliveira • <i>“Improving cross mapping in biomedical databases”</i> Joel Arrais, João Pereira, Pedro Lopes, Sérgio Matos, José Oliveira
13:00	Lunch

	Thursday June 17 th , 2010
14:30	Plenary Session Room Flores Chair: Miguel Rocha <ul style="list-style-type: none"> • <i>“Logical models provide insights into regulatory networks dynamics”</i> Claudine Chaouiya Instituto Gulbenkian de Ciência, Portugal
16:00	Coffee Break
16:30	Session E Bioinformatics applications Room Sete Cidades Chair: José Luis Oliveira <ul style="list-style-type: none"> • <i>“e-BiMotif: Combining Sequence Alignment and Biclustering to Unravel Structured Motifs”</i> Joana Gonçalves, Sara Madeira • <i>“Applying a metabolic footprinting approach to characterize the impact of the recombinant protein production in Escherichia coli”</i> Sónia Carneiro, Silas Villas-Bôas, Isabel Rocha, Eugénio Ferreira • <i>“Rbbt: A Framework for Fast Bioinformatics Development with Ruby”</i> Juan Pavon, Miguel Vázquez • <i>“Analysis of the Effect of Reversibility Constraints on the Predictions of Genome-scale Metabolic Models”</i> José Faria, Miguel Rocha, Rick Stevens, Christopher Henry • <i>“Genome Visualization in Space”</i> Leandro Marcolino, Bráulio Couto, Marcos dos Santos
18:30	Social Program
20:00	Conference Banquet

	Friday June 18 th , 2010
8:30	Registration
9:00	Plenary Session Room Flores Chair: Emilio Corchado <ul style="list-style-type: none"> • <i>“Combating Terrorism: Soft Computing Technologies and Challenges”</i> Ajith Abraham MIR Labs, Europe
10:30	Coffee Break
11:00	Session F Biomedical applications Room Sete Cidades Chair: Florentino Fdez-Riverola <ul style="list-style-type: none"> • <i>“Structure Based Design of Potential Inhibitors of Steroid Sulfatase”</i> Elisangela Costa, Emília Sousa, Carlos Montanari, Madalena Pinto • <i>“Agent-Based Model of the Endocrine Pancreas and Interaction with Innate Immune System”</i> Ignacio Espinosa, Enrique Aguilera, María Pérez, Ricardo Villares, José García • <i>“State-of-the-art Genetic Programming for Predicting Human Oral Bioavailability of Drugs”</i> Sara Silva, Leonardo Vanneschi • <i>“Enhancing Elementary Flux Modes Analysis using Filtering Techniques in an Integrated Environment”</i> Paulo Maia, Marcellinus Pont, Isabel Rocha, Miguel Rocha, Jean-François Tomb
13:00	Lunch

	Friday June 18 th , 2010
14:30	
16:30	Coffee Break
17:00	Closing Session





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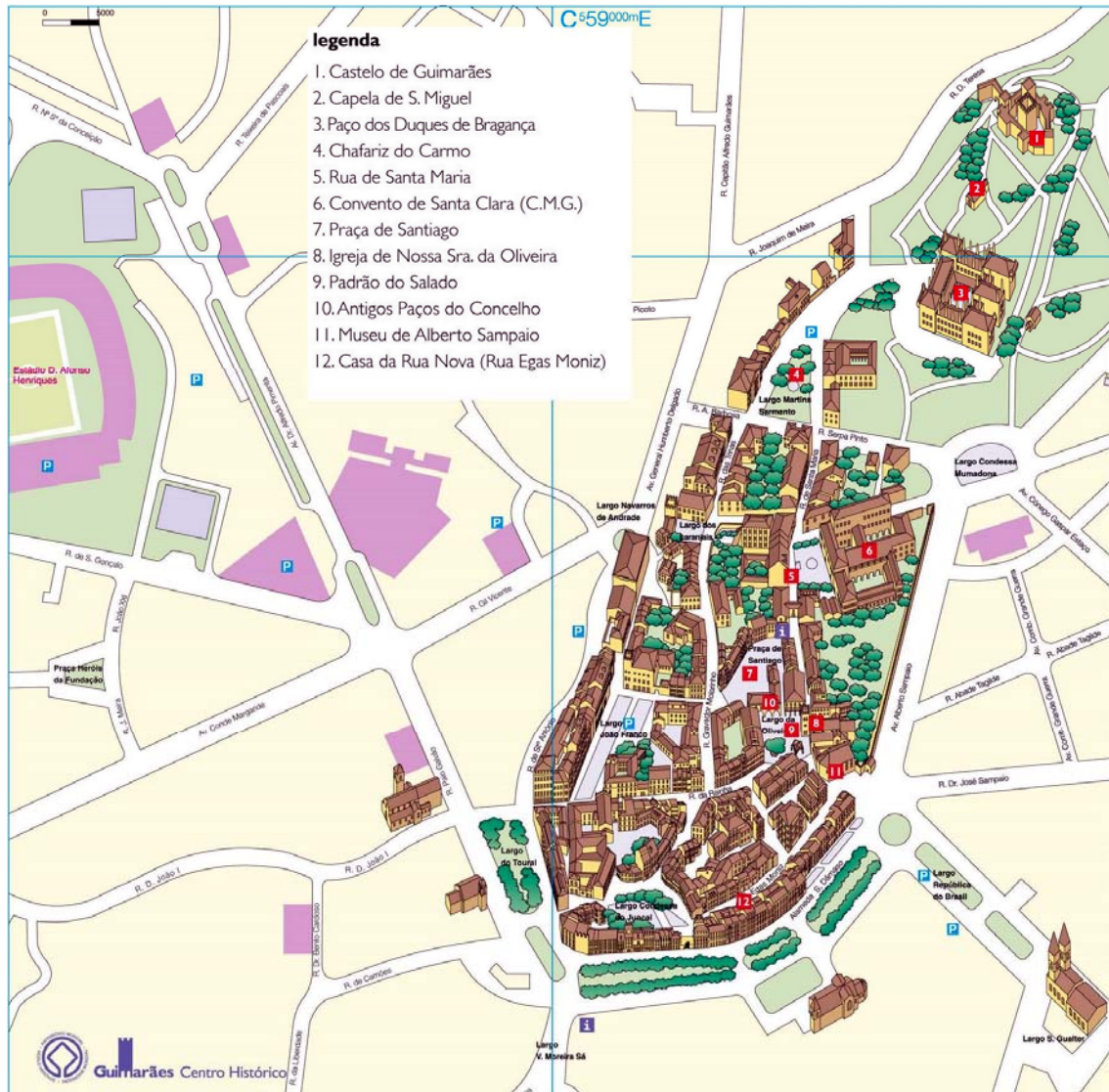
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