**ICWE 2011 | OVERVIEW PROGRAM**

**PhD Symposium**
ROOM: AKAMAS B
8:30 9:00 Welcome
9:30 Coffee Break
10:00 Session: USER INTERFACES
10:30 Session: USER INTERFACES
11:00 Session: USER INTERFACES
11:30 Session: USER INTERFACES
12:00 Lunch
12:30 Coffee Break
13:00 Session: USER INTERFACES
13:30 Session: USER INTERFACES
14:00 Session: USER INTERFACES
14:30 Session: USER INTERFACES
15:00 Session: USER INTERFACES
15:30 Session: USER INTERFACES
16:00 Session: USER INTERFACES
16:30 Session: USER INTERFACES
17:00 Session: USER INTERFACES
17:30 Session: USER INTERFACES

**Tutorial:** Multi-Dimensional Context-Aware Adaptation for Web Applications @ Room: APHRODITE A

**Tutorial:** Automating the Use of Web APIs through Lightweight Semantics @ Room: AKAMAS C

**Tutorial:** Improving Quality in Use of Web Applications in a Systematic Way @ Room: AKAMAS B

**Consolidated Workshop:** 7th Model-Driven Web Engineering Workshop (MDWE 2011)
The Web and Requirements Engineering (WeRE)
2nd International Workshop on Quality in Web Engineering (QWE 2011) @ Room: AKAMAS A

**Workshop:** 2nd International Workshop on Enterprise Crowdsourcing @ Room: AKAMAS B

**Workshop:** First International Workshop on Search, Exploration and Navigation of Web Data Sources (ExploreWeb) @ Room: AKAMAS A

**Workshop:** Third International Workshop on Lightweight Composition on the Web (ComposableWeb 2011) @ Room: AKAMAS C

**Tutorial:** Engineering the Personal Semantic Web @ Room: APHRODITE B

**Coffee Break @ Coral Beach Hotel (VENUE) - TERRACES**
**Lunch @ Coral Beach Hotel (VENUE) - CALYPSO Restaurant**

**Monday, 20 June**

**Tuesday, 21 June**

**Wednesday, 22 June**

**Thursday, 23 June**

**Friday, 24 June**

**Conf. Conference Conference Conference**

Opening Welcome
9:00

Invited Talk: "Web Application Engineering" @ Room: AKAMAS A
9:00

Coffee Break
9:30

Session: "Web Application Engineering" @ Room: AKAMAS A
10:00

Lunch
12:00

Coffee Break
12:30

Session: "Web Application Engineering" @ Room: AKAMAS A
13:00

Invited Talk: "Web Service Engineering" @ Room: AKAMAS A
14:00

Coffee Break
14:30

Session: "Web Service Engineering" @ Room: AKAMAS A
15:00

Coffee Break
15:30

Session: "Web Service Engineering II" @ Room: AKAMAS A
16:00

Session: "Web Services, SOA & REST" @ Room: AKAMAS C
16:30

Session: "Web Services, SOA & REST" @ Room: AKAMAS C
17:00

Session: "Web Services, SOA & REST" @ Room: AKAMAS C
17:30

Closing Ceremony @ Room: AKAMAS A

19:45 Departure from Coral Beach Hotel (VENUE) LOBBY AREA
# Table of Contents

**Welcome** 3  
**Keynote** 4  
**Workshops** 6  
Third International Workshop on Lightweight Composition on the Web (ComposableWeb 2011) 6  
First International Workshop on Search, Exploration and Navigation of Web Data Sources (ExploreWeb) 8  
2nd International Workshop on Enterprise Crowdsourcing 10  
Consolidated Workshop: MDWE, WeRe and QWE 12  
**Tutorials** 16  
Multi-Dimensional Context-Aware Adaptation for Web Applications 16  
Engineering the Personal Social Semantic Web 18  
Automating the Use of Web APIs through Lightweight Semantics 20  
Improving Quality in Use of Web Applications in a Systematic Way 22  
**PhD Symposium** 24  
**Conference** 26  
Wednesday, 22nd June 26  
Thursday, 23rd June 28  
Friday, 24th June 30  
**Demos & Posters** 32  
**Conference Organization** 34  
**Social Events** 38  
**General Information** 39  
**Venue Hotel – Map** 42  
**Venue Hotel – Floor Plan** 43
Dear participants!

It is with great pleasure that I welcome you to the 11th International Conference on Web Engineering (ICWE 2011), hosted by the Department of Computer Science of the University of Cyprus and taking place in Paphos, Cyprus. Cyprus is a beautiful island in the eastern part of the Mediterranean sea, renowned for its beaches, archaeological sites, food and night life, as well as the warm and sunny weather. The region of Paphos, where the conference takes place, is located in the western part of the island and it is famous for the Coral Bay beach, the archaeological sites of the Tombs of Kings and the Aphrodite baths, and the vivid nightlife of downtown Paphos.

The University of Cyprus started operating in 1992 and is the leading academic institution on the island. The Department of Computer Science was one of the founding departments of the University and it currently has a 25-strong faculty (including a number of visiting academic staff) that covers a wide spectrum of research in contemporary Computer Science, as well as attracting substantial funding from the Framework Programme and other EU, international and national funding sources.

I would like to thank all the Chairs for an excellent cooperation. I would also like to thank the invited speakers for agreeing to enhance the program with their inspiring talks, and the tutorial presenters and workshop organizers for further enriching the program with most interesting tutorials and focused workshops. Thanks are also due to the various Committees members as well as to the local organizing team and in particular Christos Metouris and Konstantinos Kakousis. And of course to the authors of all submitted papers for contributing their work to ICWE.

Enjoy the excellent technical program of ICWE 2011 but also the sunny weather, the sandy beaches and the warm sea, the delicious Cypriot food and nightlife, the hospitality of the Cypriot people and, of course, the excellent technical program of ICWE 2011

George A. Papadopoulos, General Chair
University of Cyprus, Cyprus

We are very glad to welcome you all at this beautiful inland of Cyprus. This year’s call for papers attracted a total 88 submissions from 37 countries. Papers’ topics cover a broad range of areas, namely, the Semantic Web, Web Services, Mashups, Web 2.0, Web quality, Web development, etc. Submitted papers were reviewed by at least three reviewers from the Program Committee which encompasses 67 experts in Web Engineering. Based on their reviews, 22 submissions were accepted (24% acceptance rate). In addition, 13 posters, 3 demos and 4 tutorials are also part of the conference program. The conference hosts keynotes by Prof. Stephano Ceri (Politecnico di Milano) and Dr. Tim Furche (Oxford University). Last but not least, we attempted to recognize all the effort that goes in reviewing the submissions through the "best review" award. The nominees are proposed by the authors of accepted papers, and finally appointed by the PC Chairs. This year’s prize goes to Dr. Olaf Hartig.

Oscar Diaz, Program Chair, University of the Basque Country, Spain
Sören Auer, Program Chair, Universität Leipzig, Germany
“THE ANATOMY OF A MULTI-DOMAIN SEARCH INFRASTRUCTURE”

PROF. STEFANO CERI

ABSTRACT

The Search Computing (SeCo, www.search-computing.eu) project focuses on building answers to complex search queries, like "Where can I attend an interesting conference in my field close to a sunny beach?", by using ranking and joining of results as the dominant factors for service composition. SeCo is funded by an ERC Senior Grant, started in November 2008, and will last until 2013; in the talk, I will argue that search should evolve from general-purpose monolithic engines, owned by few market leaders, towards a flexible and modular scenario, targeted to supporting complex queries and to exposing specialized data sources of the "hidden web"; I will give substance to this argument by showing that indeed such a component-based infrastructure is "under construction" and presenting its rationale and current state of development.

BIOGRAPHY

Prof. Stefano Ceri (http://home.dei.polimi.it/cedi/) is Professor of Database Systems at Politecnico di Milano focusing on database technology to incorporate data distribution, deductive and active rules, object orientation, XML query languages. His recent work focuses on design methods for data-intensive WEB sites, stream reasoning, and search computing. He has authored more than 300 articles and nine international books and is co-editor of the book series "Data Centric Systems and Applications" (Springer-Verlag). He is responsible of several EU Projects projects including "Large Knowledge Collider" (2008-2011) and was awarded an IDEAS Advanced Grant of the European Research Council (ERC), on "Search Computing" (2008-2013). He co-invented WebML, a model for the conceptual design of Web applications, and co-founded of Web Models, a startup of Politecnico di Milano focused on WebML commercialization by means of the product WebRatio (www.webratio.com). He is the director of Alta Scuola Politecnica (www.asp-poli.it).
"HOW THE MINOTAUR TURNED INTO ARIADNE... ONTOLOGIES IN WEB DATA EXTRACTION"

DR. TIM FURCHE

ABSTRACT

The Web has been a stellar success: there are now more web pages than stars in the Milky Way. The flip side of this success is that navigating and understanding this information to make informed decisions has become overwhelmingly hard: To rent an apartment, say in Oxford, you need to sift through the web sites of hundreds of real-estate agencies, and yet always feel like you missed that even nicer place. Humans require automated support to profit from this wealth of data. To enable automation, the linked open data initiative and others have been asking data providers to publish structured, semantically annotated data. Small data providers, such as most UK real-estate agency, however, are not equipped to shoulder this burden. They are just starting to deal with the transition from simple, table- or list-like directories to web applications with rich interfaces. In this talk, we argue that fully automated extraction of structured data can be the way out of this dilemma. Ironically, automated data extraction has seen a recent revival thanks to the use of ontologies and linked open data to guide the data extraction. First results from the ERC DIADEM project illustrate that high quality, fully automated data extraction at a web scale is possible, if we combine domain ontologies with a phenomenology describing how the concepts of a domain are represented on the web. The talk concludes with a summary of the current state of data extraction and a brief discussion of the major open problems.

BIOGRAPHY

Dr. Tim Furche leads the DIADEM lab at the Oxford University, UK, as senior postdoc. DIADEM (diadem-project.info) is an ERC advanced investigator grant on web data extraction recently awarded to Georg Gottlob. His research interests include data extraction, XML and semi-structured data, in particular query evaluation and optimisation, and advanced Web information systems. He has authored over 40 peer-reviewed scientific publications, some of them cited over 200 times. His main contributions are on XPath optimisation and evaluation, on linear time and space querying of large graphs, and on languages for web data extraction, querying, and search. Tim Furche regularly contributes to scientific conferences and journals, especially in the areas Web and Semantic Web as an author, reviewer and program committee member. From 2004-2008 he co-coordinated the working group on Reasoning-aware Querying in the EU Network of Excellence REWERSE.
In the context of the Web, the word “mashup” is used to denote Web applications that are materialized by integrating data, services and/or presentation of other (data) sources or applications. Some applications focus on integrating RSS feeds, others on integrating RESTful services or SOAP services, others on Atom feeds, and there are those that focus on integrating user interfaces. We believe mashups – and especially mashup tools with their models, languages and instruments for mashup development – do bring innovation, in that they tackle integration at the user interface level (most mashups do integrate presentation content, not “just” data), they aim at simplicity more than completeness of features (up to the point that advanced Web users, not only programmers, can develop composite applications), and they allow fairly sophisticated development tasks in the web browser.

Over the last years, we have seen many efforts invested in research on mashups, in both the industrial and the academic context, yet we are still far from a common understanding of the problems that drive the research, of the approaches that best fit given problems, and even of the benefits of the results achieved so far.

In light of these considerations, the goal of ComposableWeb is to stimulate the discussion of key issues, approaches, open problems, innovative applications, and trends in the area of web mashups and lightweight composition on the Web, so as to accelerate progress. ComposableWeb aims at bringing together researchers and practitioners with different research interests and belonging to communities like Web Engineering, Service Engineering, Business Process Management, Databases, Semantic Web, Software Composition and Software Engineering.

Please find here the preliminary program of ComposableWeb 2011, which will be held on June 20, 2011. As soon as we have the final versions of the papers as they will be presented during the workshop (hopefully by the end of this week, meaning June 10), we will publish them on this page.
WORKSHOPS

SCHEDULE

09.00  SESSION 1
- **WORKSHOP INTRO**
- An Evaluation of Mashup Tools Based on Support for Heterogeneous Mashup Components. *Saeed Aghaee and Cesare Pautasso*
- An Approach to Construct Dynamic Service Mashups using Lightweight Semantics. *Dong Liu, Ning Li, Carlos Pedrinaci, Jacek Kopecky, Maria Maleshkova and John Domingue*
- Task-Based Recommendation of Mashup Components. *Vincent Tietz, Gregor Blichmann, Stefan Pietschmann and Klaus Meißner*

10:30  COFFEE BREAK

11:00  SESSION 2
- Integration of Telco Services into Enterprise Mashup Applications. *Olexiy Chudnovskyy, Frank Weinhold, Hendrik Gebhardt and Martin Gaedke*
- Orchestrated User Interface Mashups Using W3C Widgets. *Scott Wilson, Florian Daniel, Uwe Jugel and Stefano Soi*
- Cross-Domain Embedding for Vaadin Applications. *Janne Lautamäki and Tommi Mikkonen*

12:30  LUNCH

14:00  SESSION 3
- Web Linking-based protocols for guiding RESTful M2M interaction. *Jesus Bellido, Rosa Alarcon and Cristian Sepulveda*
- Secure Mashup-Providing Platforms - Implementing Encrypted Wiring. *Matthias Herbert, Tobias Thieme, Jan Zibuschka and Heiko Roßnagel*

15:30  COFFEE BREAK

16:00  SESSION 4
- **DEMONSTRATIONS OF TOOLS, PROTOTYPES, AND NOVEL IDEAS**
- **DISCUSSION AND WORKSHOP CLOSING**
The goal of this workshop is to gather researchers and practitioners in the diverse fields related to exploration and navigation of search results and web data sources.

The workshop will be mainly focused on the following disciplines:

- Exploratory search
- Navigation and visualization of (open) Web data
- Access to Web data
- Modeling of data sources on the web

The joint application of the data integration, hypertext navigation, concept exploration, and exploratory search techniques is not trivial, because the new Web datasources are characterized by some peculiar features that need to be considered, including: rank awareness of results, partial retrieval of result lists from data sources, partial or approximate match between values, and so on. This imposes new requirements both to the data integration and navigation applications, which cannot solely rely on past solutions. The workshop will represent a unique venue for discussing all the aspects related to navigation and exploration of new Web data sources.
WORKSHOPS

SCHEDULE

09:00     Keynote Speech
09:00     Welcome
09:15 Soren Auer. Exploration and other stages of the Linked Data Life Cycle
10:15 Q&A
10:30 Coffee Break
11:00 A. Linked Data Exploration
   • A2. Marcelo Cohen and Daniel Schwabe. Support for reusable explorations of Linked Data in the Semantic Web
12:00 Discussion on Linked Data Exploration
12:30 Lunch
14:00 B. Tags Cloud and NLP
   • B1. Frederico Durao, Peter Dolog, Martin Leginus and Ricardo Lage. SimSpectrum: A Similarity Based Spectral Clustering Approach to Generate a Tag Cloud
   • B2. Han-Gyu Ko and In-Young Ko. Generation of Semantic Clouds based on Linked Data for Efficient Multimedia Semantic Annotations
   • B3. Mamoun Abu Helou. Segmentation of Geo-Referenced Queries
15:30 Coffee Break
16:00 C. Web Data Navigation and Visualization
   • C2. Rober Morales-Chaparro, Juan Carlos Preciado and Fernando Sanchez-Figueroa. Data-driven and User-driven Multidimensional Data Visualization
17:00 Discussion on Navigation, Computation and Querying over Web Data
17:30 Conclusions
Crowdsourcing, a successful mechanism operating on Web 2.0 of harvesting information and expertise from the online communities, has evolved over the past few years from its humble beginnings as isolated purpose-built initiatives, such as Wikipedia and Mechanical Turk to a growth industry. This workshop has the following objectives: (1) Identify requirements arising from deploying Web architectures to source (business) tasks through the social networks (e.g. potentially resulting in Web standards for collaborative applications). (2) Identify emerging topics and challenges within the enterprise crowdsourcing paradigm and provide a forum for further exploration and advancement in the enterprise domain. (3) Bring together academic and industrial communities that are active in the crowdsourcing area.
WORKSHOPS

SCHEDULE

14:00  Session 1

**Invited Talk: Michael Nebeling.**


- Lukas Biewald, CrowdFlower: Massive Multiplayer Human Computation for Fun, Money, and Survival

15:30  Coffee Break

16:00  Session 2

- Jayakanthan Ranganathan, Tata Consultancy: *Enterprise Crowdsourcing Solution for Software Development in an Outsourcing Organization*
- Maja Vukovic, IBM T.J. Watson Research: *Managing Enterprise Data Centers using Crowdsourcing*
CONSOLIDATED WORKSHOP: MDWE, WeRE AND QWE

DATE: Tuesday, June 21st (FULL-DAY)  
TIME: 09:00 – 17:30  
(COFFEE BREAKS AT 10:30 & 15:30, LUNCH AT 12:30)

7TH MODEL-DRIVEN WEB ENGINEERING WORKSHOP (MDWE 2011)

The MDWE’2011 workshop aims at providing a discussion forum for researchers and practitioners on model-driven development of Web applications. The workshop will be the ideal venue for meeting, disseminating and exchanging ideas and problems, identifying the key issues and exploring together the possible solutions and future research directions.

Accordingly, we invite submissions from both academia and industry about topics that comprise Model-Driven Architecture (MDA) and other model-driven approaches (e.g., Software Factories, Product Line Engineering, Aspect-Oriented Development, etc.) for the development of Web systems, use of metamodels, model transformations, UML profiles, domain specific modeling languages, semantic Web and design patterns in the development of Web applications. Further topics of interest are the interoperability models for Web applications and resources (Web pages, Web services, mockups, portlets, distributed components, etc.) and the use of tools and frameworks for supporting model-driven Web development. Finally, we also welcome contributions that foster discussions on the analysis of advantages, problems and limitations of such MDSD in the Web Engineering domain, maintenance, evolution, management of model-driven generated Web systems and model-driven analysis of Web applications, such as quality, performance or reliability analysis.
The **Web and Requirements Engineering (WeRE)**

The International Workshop on the Web and Requirements Engineering (WeRE) intends to be an international forum for exchanging ideas on both using Web technologies as a platform for requirements engineering, and applying requirements engineering in the development and use of web-based applications. Papers are solicited that present on-going work focusing on new ideas and experiences with Requirements Engineering and the Web. The workshop will be a forum for discussion and exchange of ideas among researchers, designers, and users who are working or are interested in any combination of these two main topics.

**Purpose**

In the last decade, the number and complexity of web-based applications and the amount of information they offer has been growing exponentially. In the context of Software Engineering, design methods and methodologies have been introduced to support the development of these complex applications in a systematic way. However, most of these methodologies focus on design and neglect other tasks, notably requirement analysis and quality management. However, in the development of traditional (non-web) applications both practitioners and process experts regard requirements engineering as a phase of crucial importance in the development process. It is well-known that the most common and time-consuming errors as well as the most expensive ones to repair, are often errors caused by inadequate engineering of requirements. Moreover, web-based applications demand new requirements engineering techniques that can accommodate a large, open and changing community of, can deal with navigational requirements and broad in scope so that they can account for business processes as well as web usability. These new techniques will need to offer more participatory environments to support effective collaboration among stakeholders. In this context, the Web (especially Web 2.0 applications), provide a convenient platform to allow stakeholders and users alike more active participation in requirements engineering.
2ND INTERNATIONAL WORKSHOP ON QUALITY IN WEB ENGINEERING (QWE 2011)

The "Quality in Web Engineering" workshop (QWE) is aimed at bringing together professionals and researchers interested in discussing recent trends and perspectives in the role of quality in Web Engineering. The main purpose will be to assess the effectiveness of existing approaches for evaluating and managing the quality of Web resources (review guidelines, usability models, usability evaluation methods, usability checkers, accessibility verifiers, information quality tools, logging tools, automatic metric capture tools, statistical tools, etc.), with the final objective of allowing participants to discuss and get to know the most innovative and advanced experiences for guaranteeing the quality of Web applications in general, and Web 2.0 applications in particular. Special emphasis will be posed on Web Engineering methods, the way they improve the development process and the quality of final applications, and the way they can be further empowered by taking into account quality principles and by integrating sound quality assessment methods.

One of the goals of this year's edition will be to discuss the impact of these issues in modern Web applications, commonly referred to as Web 2.0 applications. The current trend in the creation of such applications is to increase the user involvement in the creation of contents, annotations, and evaluations. An emerging practice, that is currently gaining popularity even among users with only little programming skills, is the development of mashups through the integration of contents and functions that are provided by third parties that open their APIs toward developers and end users.

This new generation of applications proves the initially unexpected value of integrating end users in the creation process of online applications. However, while several efforts have been so far devoted to the production of authoring environments and development tools, and to the definition of corresponding enabling technologies, there is a lack of proposals for the definition of key quality principles and evaluation methods.
WORKSHOPS

SCHEDULE

09:15  **SESSION 1: MDWE. CHAIR: GEERT-JAN HOUNEN**
- Opening and presentation of participants
- A Model-Driven Framework for Developing Web Service Oriented Applications (25+5 min) Achilleas Achilleos, Georgia Kapitsaki and George Papadopoulos
- Developing Enterprise Web Applications using the Story Driven Modeling approach (25+5 min) Christoph Eickhoff, Nina Geiger, Marcel Hahn and Albert Zuendorf

10:30  **COFFEE BREAK**

11:00  **SESSION 2: MDWE. CHAIR: SANTIAGO MELIÁ**
- Aspect-Oriented Modeling of Web Applications with HiLA (25+5 min) Gefei Zhang and Matthias Hölz
- Model-Driven Web Form Validation with UML and OCL (25+5 min) Eban Escott, Paul Strooper, Paul King and Ian J. Hayes
- Model-Driven Modernization of Legacy Web Systems into Rich Internet Applications (25+5 min) Roberto Rodriguez-Echeverria, Jose Maria Conejero, Pedro J. Clemente, Juan Carlos Preciado and Fernando Sanchez-Figueroa

14:00  **SESSION 3: WERE**
- Detecting Conflicts and Inconsistencies in Web Application Requirements Mario Matías Urbieta, María Jose Escalona, Esteban Robles Luna and Gustavo Rossi
- Streamlining Complexity: Conceptual Page Re-modeling for Rich Internet Applications Andrea Pandurino, Davide Bolchini, Luca Mainetti and Roberto Paiano
- Discussion

15:30  **COFFEE BREAK**

16:00  **SESSION 4: QWE**
- Quality Models for Web 2.0 Sites: a Methodological Approach and a Proposal Roberto Polillo
- Exploring the Quality in Use of Web 2.0 Applications: The Case of Mind Mapping Services Tihomir Orehovacki, Andrina Granic and Dragutin Kermek.
- Discussion: Present and Future Trends in Web 2.0 Quality Design and Assessment
MULTI-DIMENSIONAL CONTEXT-AWARE ADAPTATION FOR WEB APPLICATIONS

JEAN VANDERDONCKT AND VIVIAN GENARO MOTTI

DATE: MONDAY, JUNE 20TH (FULL-DAY)  
TIME: 09:00 – 17:30  
(COFFEE BREAKS AT 10:30 & 15:30, LUNCH AT 12:30)

PRESENTERS

Jean Vanderdonckt, is a professor in Computer Science at Université catholique de Louvain (Belgium), Louvain School of Management (IAG-LSM) where he leads the Louvain Interaction Laboratory (LILAB). LILAB members conduct research, development, and consulting services in the domain of user interface engineering, a domain that is located midway between software engineering, human-computer interaction, and usability engineering. Jean Vanderdonckt is the founder and the coordinator of the UsiXML Consortium (www.usixml.org) that structures activities towards the definition and the usage of UsiXML (User Interface eXtensible Markup Language) as a common User Interface Description Language. He is the coordinator of HCI activities within the Similar network of excellence (www.similar.cc), The European research taskforce creating human-machine interfaces SIMILAR to human-human communication), and the scientific coordinator of the ITEA2 Call3 UsiXML project. He is also a founding member of the European COST n°294 Action MAUSE (www.cost294.org) on usability engineering and the next one called TwinTide. He represents Belgium for the ISO 24744 standard. He is a Senior member of IEEE, ACM, SIGCHI. He and the BCHI team has co-authored and edited several books and published more than 100 publications in the fields of software engineering and HCI.

Vivian Genaro Motti is a PhD Candidate at Université catholique de Louvain and a member of Louvain Interaction Laboratory (LILAB) where she researches about user interface adaptation in context-aware applications. She is a research assistant for Serenoa Project. She obtained her Master degree at University of Sao Paulo (ICMC – Sao Carlos, SP, Brazil) in 2009. There she investigated usability issues in ubiquitous computing using user-centered design techniques. She has teaching experience in Hypermedia, Human-Computer Interaction, and Web Technologies. She published papers in EICS, ACM Symposium on Document Engineering (DocEng), EuroITV, WebMedia. Her experience as a researcher includes topics such as: web 2.0, mashups, ubiquitous computing, usability, and accessibility.
ABSTRACT

Most of the web applications developed nowadays considers a pre-defined context of use: an able-bodied user in a stable environment using a Desktop PC. However, the context of use varies, users compose a heterogeneous group, with different profiles, wishes and requirements, they interact from different platforms and using different modalities. Therefore, implementing a web application taking into account a specific context of use may difficult or even prevent the user interaction, and implementing different versions of the application for each context of use requires significant efforts. In order to improve the usability, accessibility and to accommodate different scenarios of use the applications can be adapted. Adaptation consists in transforming certain aspects of an application in different levels according to the context of use. Many efforts have been reported in both domains of research and development aiming to support the development of adaptive or adaptable applications. These efforts are wide spread; therefore it is a hard task to find unified and consistent knowledge that joins information about adaptation in an efficient way to support its implementation. The main goal of this tutorial is to present an overview of the state of the art of adaptation for web interfaces concerning multi-dimensionality and context-awareness. The specific goals include: (i) the presentation of fundamental concepts, such as: what is adaptation, relevant context information for adaptation and how to consider it to implement context aware adaptive and adaptable applications for web, multi-dimensions for adaptation; (ii) the presentation of techniques currently used to adapt web applications, as well as, the methods, models and user-interface languages in this domain; (iii) the presentation of adaptive and adaptable web applications to illustrate: the context-awareness and multi-dimension adaptation in practice.
TUTORIALS

ENGINEERING THE PERSONAL SOCIAL SEMANTIC WEB

FABIAN ABEL AND GEERT-JAN HOUBEN

DATE: MONDAY, JUNE 20TH (HALF-DAY, AFTERNOON)  
TIME: 14:00 – 17:30  
(COFFEE BREAK AT 15:30)

PRESENTERS

Fabian Abel, is working as postdoc in the Web Information Systems group at Delft University of Technology. His research focuses on user modeling and personalization in the Social Web. Fabian did his PhD work at L3S Research Center and was concerned with (distributed) user modeling on the Social Semantic Web covering topics like linking, integrating and enriching user models as well as personalized retrieval of social media content (thesis: "Contextualization, User Modeling and Personalization in the Social Web"). He published more than 40 scientific articles in the field of Social and Semantic Web. In 2010, he co-organized different workshops related to user modeling and personalization on the Social Web like LUPAS at ESWC or UDISW at IUI. In 2011, Fabian continues these efforts and is co-organizing the workshop on User Profile Data on the Social Semantic Web (UWeb) at ESWC 2011 and guest editor of a special issue on the "The Personal and Social Semantic Web" for the Semantic Web Journal.

Geert-Jan Houben, full professor at Delft University of Technology, is expert in Web-based information systems engineering and Semantic Web technology, and author of over 100 scientific publications in the areas of Web engineering and user-adaptation. He is heading the Hera research program on Web information systems, adaptation & personalization, Web query and transformation languages, and SemanticWeb technologies. He (co-) organized, chaired, or served as PC member for numerous conferences and workshops in the field (including more than 10 workshops related to personalization and (Semantic) Web), was PC Chair for UMAP, and serves as editorial board member or managing editor for journals in the area, e.g. for ACM TWEB and JWE.
TUTORIALS

ABSTRACT

Social Web sites, such as Facebook, YouTube, Delicious, Flickr and Wikipedia, and numerous other Web applications, such as Google and Amazon, rely on implicitly or explicitly collected data about their users and their activities to provide personalized content and services. As these applications become more and more connected on the Semantic Web, a major challenge is to allow various applications to exchange, reuse, and integrate the user data from different sources. Such data comes in different avors: user data such as user profiles, social networking/tagging/blogging data, etc. as well as usage data like clickthrough data or query logs. The amount of user data available on the Web is tremendously growing so that sharing and mining these heterogeneous data corpora distributed on the Web is a non-trivial problem that poses several challenges to the Web engineering community. In this tutorial we discuss how we can engineer the Personal Social Semantic Web, a Web where user modeling and personalization is featured across system boundaries. Therefore, we learn user modeling and personalization techniques for Social Web systems. We dive into social tagging, social networking and micro-blogging services and examine appropriate modeling and mining techniques for these systems. We discuss Semantic Web and Linked Data principles that allow for linkage and alignment of distributed user data and show how we can exploit the Social Semantic Web to personalize user experiences. This tutorial is composed of four modules: (i) user modeling, (ii) personalization, (iii) linkage and alignment and (iv) Personal Social Semantic Web. In each module we give an overview of related work and recent trends, discuss selected models, algorithms and techniques in detail and provide various hands-on coding examples.
AUTOMATING THE USE OF WEB APIs THROUGH LIGHTWEIGHT SEMANTICS

CARLOS PEDRINACI, MARIA MALESHKOVA, GUILLERMO ÁLVARO REY AND DONG LIU

DATE: THURSDAY, JUNE 21TH (FULL-DAY)  
TIME: 09:00 – 17:30  
ROOM: AKAMAS C
(COFFEE BREAKS AT 10:30 & 15:30, LUNCH AT 12:30)

PRESENTERS

Dr. Carlos Pedrinaci, is a research fellow of the Knowledge Media Institute at the Open University. He holds an MSc in Computer Science and a PhD in Artificial Intelligence from the University of the Basque Country (Spain). Carlos has published over 50 papers in major conferences and international journals around Semantic Web Services, Knowledge-Based Systems, Knowledge Engineering and Business Process Analysis. Carlos has worked in several international research projects in the area of services such as OBELIX (EU FP5 STREP), DIP (EU FP6 IP), SUPER (EU FP6 IP) and SOA4All (EU FP7 IP). Dr. Pedrinaci has presented several tutorials on Semantic Web Services and their application to enterprises in major conferences such as ICSC 2008, ESWC 2007, ISWC 2007, ICIW 2007. He has also co-organised summer schools notably the Service and Software Architectures, Infrastructures and Engineering (SSAIE) 2009 and 2010.

Maria Maleshkova, is a PhD student focusing on supporting and enhancing the creation of semantic annotations over Web services. She holds a Dipl.- Inform. from the University of Karlsruhe (TH), Germany, and has previously been involved in the organization of the International Semantic Web Conference in 2008 and the Beyond SAWSDL workshop 2009. Maria has been a co-organiser and a lecturer at several conference tutorials, including the Service and Software Architectures, Infrastructures and Engineering (SSAIE) Summer School in 2009 and 2010 and the 1st Karlsruhe Summer School on Service Research 2010.

Guillermo Álvaro Rey, is a senior researcher at iSOCO in Madrid, Spain. He holds a degree in Telecommunications Engineering from the Technical University of Madrid (UPM) and he also obtained a M.Sc. by Research in the Distributed Systems Group of Trinity College Dublin (TCD). In 2008, after three years of work in a project at the Research and Development division of Telefónica (Telefónica I+D), he joined iSOCO to work in areas such as Semantic Web Services and Web 2.0.
**ABSTRACT**

Web services have already achieved a solid level of acceptance and play a major role for the rapid development of loosely-coupled component-based systems, overcoming heterogeneity within and between enterprises. Current developments in the world of services on the Web are marked by the proliferation of Web APIs and Web applications, commonly referred to as RESTful services, which show high potential and growing user acceptance. Still, despite the achieved progress, the wider adoption of Web APIs is hindered by the fact that their implementation and publication hardly follow any standard guidelines or formats. REST principles are indeed a good step in this direction but the vast majority of the APIs do not strictly adhere to these principles. As a consequence, in order to use them, developers are obliged to manually locate, retrieve, read and interpret heterogeneous documentation, and subsequently develop custom tailored software, which has a very low level of reusability. In summary, most tasks during the life-cycle of services require extensive manual effort and applications based on existing Web APIs suffer from a lack of automation. This tutorial introduces an approach and a set of integrated methods and tools to address this drawback, making services more accessible to both experts and non-expert users, by increasing the level of automation provided during common service tasks, such as the discovery of Web APIs, their composition and their invocation. The tutorial covers i) the conceptual underpinnings, which integrate Web APIs with state of the art technologies from the Web of Data and Semantic Web Services; ii) the presentation of an integrated suite of Web-based tools supporting service users; iii) and hands-on examples illustrating how the tools and technologies presented can help users in finding and exploiting existing Web APIs.
TUTORIALS

IMPROVING QUALITY IN USE OF WEB APPLICATIONS IN A SYSTEMATIC WAY

LUIS OLSINA AND PHILIP LEW

DATE: TUESDAY, JUNE 21TH (HALF-DAY, MORNING)                              ROOM: APHRODITE B
TIME: 09:00 – 12:30                                                    (COFFEE BREAK AT 10:30)

PRESENTERS

Luis Olsina is a full Professor in the Engineering School at the National University of La Pampa, Argentina, and heads the Software and Web Engineering R&D group (GIDIS_Web). His research interests include Web engineering, particularly, Web quality assurance strategies, quantitative evaluation methods, quality improvement, and ontologies. He earned a PhD in the area of software engineering and a MSE from National University of La Plata, Argentina. In the last 14 years, he has published over 80 refereed papers, and participated in numerous regional and international events both as program committee chair and member. Particularly, he co-chaired the Web Engineering Workshop held in USA in the framework of ICSE 2002 (Int'l Conference on Software Engineering); the ICWE 2002 congress (held in Argentina) and ICWE 2003 (held in Spain); in addition to LA-Web 2005 and 2008 editions and the WE track at WWW’06 (held in Edinburgh, UK). He has been an invited speaker at several conferences and professional meetings, and presented tutorials, for instance, at ICWE’05 (Int’l Conference on Web Engineering held in Australia), ICWE’09 (held in Spain), CEESEC’10 (held in Moscow) and graduate courses in different countries. Recently, Luis and his colleagues have co-edited the book titled Web Engineering: Modelling and Implementing Web Applications published by Springer, HCIS Series, 2008.

Philip Lew is a Professor at the Software School at Beihang University where he teaches Software Quality Assurance. He is also the CEO of XBOSoft, a firm dedicated to providing software quality assurance and testing services. He frequently speaks and provides guidance to private enterprises in the area of test process improvement, software quality metrics, risk-based testing strategies, and test automation. His research interests include software improvement methods, measurement and evaluation of software learnability, usability and user experience. He earned a PhD in Computer Science and Engineering from Beihang University in Beijing, China, and a Bachelor and Master of Engineering from Cornell University in Ithaca, New York.
TUTORIALS

ABSTRACT

Today's web-based applications (WebApps) containing complex business logic and sometimes critical to operating the business, are now requiring increased focus on understanding and improving their quality. One of the first steps to evaluate quality is to define requirements usually through quality models. The ISO 25010 standard describes one such model for general usage in specifying and evaluating software quality requirements. However, ISO 25010 is intended as a general guideline to be adapted based on a specific information need and context, i.e. for evaluating WebApps. In addition, some of ISO model concepts, while founded strongly in theory, are difficult to realize in a real situation particularly when it comes to measuring and evaluating quality in use (QinU). Therefore, WebApps and their quality evaluation has been the subject of abundant research. However, models have been used mostly for the purpose of understanding, rather than improving. In this tutorial, we propose utilizing a quality modeling framework to instantiate quality models with the specific purpose to not only to understand the current situation of an entity, but also to improve it. Our approach instantiates models for both external quality (EQ) and QinU, resulting in a requirements tree for both followed by evaluation. In modeling terms, QinU characteristics and attributes need to be related to EQ characteristics and attributes. That is to say, does the software's new (and improved) version have a positive impact on its QinU? To answer this question for WebApps, we began by first proposing to augment the ISO 25010 standard through using the 2Q2U (Quality, Quality in use, actual Usability and User experience) modeling framework to include information quality as a characteristic of internal/external quality because this is a critical characteristic of WebApps. We further proposed to include learnability in use as a characteristic of usability in use to account for the learning process and the importance of context of use during learning. Using ISO 25010 premise that the relationships ‘depends on’ and ‘influences’ exist between EQ and QinU, we instantiate models for both EQ and QinU specifically for the purpose of improving the QinU of a WebApp. To carry ISO 25010 further, we show a cyclic strategy for improvement and development of relationships. Improving is driven by understanding these relationships, namely, ‘depends on’, and ‘influences’ in alignment with the ISO 25010 quality life cycle model. This is illustrated with a case study showing the underlying strategy from model instantiation to application improvement.
09:00  **Welcome**

09:15  **Invited Talk (Sören Auer, Leipzig University)**

09:45  **Session "Web Data Engineering"**

- A Flexible Graph-Based Data Model Supporting Incremental Schema Design and Evolution. *Katrin Braunschweig, Maik Thiele and Wolfgang Lehner*
- ProLD: Propagate Linked Data. *Peter Kalchgruber*

10:45  **Coffee Break**

11:00  **Session "Web Application Engineering"**

- Causal Relation Detection for Activities from Heterogeneous Sources. *Philipp Katz*
- XML Document Versioning, Revalidation and Constraints. *Jakub Maly*

12:30  **Lunch**

14:00  **Invited Talk (Florian Daniel, Trento University)**

14:30  **Session "Web Service Engineering I"**

- A flexible architecture for Client-Side Adaptation. *Sergio Firmenich, Gustavo Rossi, Silvia Gordillo and Marco Winckler*
- Applications of Mobile Application Interface Description Language MAIDL. *Prach Chaisatien, Korawit Prutsachainimmit and Takehiro Tokuda*
- A Domain-Specific Language for Do-It-Yourself Analytical Mashups. *Julian Eberius, Maik Thiele and Wolfgang Lehner*

15:30  **Coffee Break**

16:00  **Session "Web Service Engineering II"**

- Information extraction from web pages based on their visual representation. *Ruslan Fayzrakhmanov*
- End-User Programming for Web Mashups: Open Research Challenges. *Saeed Aghaee and Cesare Pautasso*
CONFDENCE

WEDNESDAY, JUNE 22\textsuperscript{ND}

\textit{Room: AKAMAS A}

\begin{tabular}{ll}
08:45 & \textbf{Opening Welcome} \\
09:15 & \textbf{Keynote} Dr. Stefano Ceri \\
& \textit{Chair: Oscar Díaz} \\
10:30 & \textbf{Coffee Break} \\
11:30 & \textbf{Session: Mashups} \\
& \textit{Chair: Martin Gaedke} \\
& \begin{itemize}
  \item A Quality Model for Mashups. Cinzia Cappiello, Florian Daniel, Agnes Koschmider, Maristella Matera and Matteo Picozzi
  \item Mobile Mashup Generator System for Cooperative Application of Different Mobile Devices. Prach Chaisatien, Korawit Prutsachainimit and Tokuda Takehiro
  \item DashMash: a Mashup Environment for End User Development. Cinzia Cappiello, Maristella Matera, Matteo Picozzi, Gabriele Sprega, Donato Barbagallo and Chiara Francalanci
\end{itemize} \\
12:30 & \textbf{Lunch} \\
14:00 & \textbf{Session: Semantic Web & Search} \\
& \textit{Chair: Hiroshi Ishikawa} \\
& \begin{itemize}
  \item A semantic web annotation tool for a web-based audio sequencer. Luca Restagno, Vincent Akkermans, Giuseppe Rizzo and Antonio Servetti
  \item Design and Implementation of Linked Data Applications using SHDM and Synth. Mauricio Henrique De Souza Bomfim and Daniel Schwabe
  \item Multi-way Rank Join with Parallel Access. Adnan Abid and Marco Tagliasacchi
\end{itemize} \\
15:30 & \textbf{Coffee Break}
\end{tabular}
WEDNESDAY, JUNE 22ND

ROOM: AKAMAS A

16:00 Session: Web Services, SOA & REST
Chair: In-Young Ko

• Formal Modeling of RESTful Systems Using Finite-State Machines. Ivan Zuzak, Ivan Budiselic and Goran Delac
• Assessing Fault Occurrence Likelihood for Service-Oriented Systems. Amal Alhosban, Khayyam Hashmi, Zaki Malik and Brahim Medjahed
• Bootstrapping Trust of Web Services based on Trust Patterns and Hidden Markov Model. Hamdi Yahyaoui and Sami Zhioua
• CloudFuice: A flexible Cloud-based Data Integration System. Andreas Thor and Erhard Rahm

16:00 Session: Demos I (Presentation) - Ref. Page: 32
Chair: Florian Daniel

16:00 Session: Posters I (Presentation) - Ref. Page: 32
Chair: Marco Winckler

20:00 Welcome Reception at Venue, Coral Beach Hotel - Terraces
THURSDAY, JUNE 23RD

ROOM: AKAMAS A

09:00  SESSION: ADAPTATION
CHAIR: GERTRI KAPPEL

- Architectural Support for Crowdsourced Adaptation of Web Interfaces. Michael Nebeling and Moira Norrie
- A Framework for Concern-Sensitive, Client-Side Adaptation. Sergio Firmenich, Marco Winckler and Gustavo Rossi

09:00  SESSION: DEMOS I (EXHIBITIONS) - Ref. Page: 32

09:00  SESSION: POSTERS I (EXHIBITIONS) - Ref. Page: 32

10:30  COFFEE BREAK

11:00  [KEYNOTE] DR. TIM FURCHE
CHAIR: SÖREN AUE

12:30  LUNCH

14:00  SESSION: WEB 2.0
CHAIR: LUIS OLSINA

- Learning Semantic Relationships between Entities in Twitter. Ilknur Celik and Fabian Abel
- Improving the Exploration of Tag Spaces Using Automated Tag Clustering. Joni Radelaar, Aart-Jan Boor, Damir Vandic, Jan-Willem Van Dam, Frederik Hogenboom and Flavius Frasincar
- Analyzing Cross-System User Modeling on the Social Web. Fabian Abel, Samur Araujo, Qi Gao and Geert-Jan Houben

15:30  COFFEE BREAK
**CONFERENCE**

**THURSDAY, JUNE 23rd**

*Room: AKAMAS A*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session: Web Development</th>
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<tbody>
<tr>
<td>16:00</td>
<td><strong>Chair: Daniel Schwabe</strong></td>
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<tr>
<td></td>
<td>• Graph-Based Search over Web Application Model Repositories. Bojana Bislimovska, Alessandro Bozzon, Marco Brambilla and Piero Fraternali</td>
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<td>• Instantiating Web Quality Models in a Purposeful Way. Philip Lew and Luis Olsina</td>
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<td>• A Layered Approach to Revisitation Prediction. George Papadakis, Ricardo Kawase, Eelco Herder and Claudia Niederée</td>
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<tr>
<th>Time</th>
<th>Session: Posters II (Presentation)</th>
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<tr>
<td>16:00</td>
<td>Ref. Page: 33</td>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:30</td>
<td>ISWE Member Meeting</td>
</tr>
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<td>19:45</td>
<td>Departure from Venue, Coral Beach Hotel - Lobby Area</td>
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<td>20:30</td>
<td>Conference Banquet at Local Restaurant, Latchi Fishing Outlet</td>
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**FRIDAY, JUNE 24**

**Room: Akamas A**

- **09:30**  
  **Session: User Interfaces**  
  *Chair: Takehiro Tokuda*

- **09:30**  
  **Session: Posters II (Exhibitions)** - *Ref. Page: 29*

- **11:00**  
  **Coffee Break**

- **11:30**  
  **Closing Ceremony**

- **12:30**  
  **Lunch**
DEMOs & POSTERS

DEMOs – I

PRESENTATION
DATE: WEDNESDAY, JUNE 22ND
ROOM: AKAMAS C
TIME: 16:00

EXHIBITION
DATE: THURSDAY, JUNE 23RD
ROOM: AKAMAS C
TIME: 09:00

- Matthias Heinrich and Martin Gaedke. WebSoDa: A Tailored Data Binding Framework for Web Programmers Leveraging the WebSocket Protocol and HTML5 Microdata
- Davide Francesco Barbieri, Alessandro Bozzon, Marco Brambilla, Stefano Ceri, Chiara Pasini, Luca Tettamanti, Salvatore Vadacca, Riccardo Volonterio and Serge Zagorac. Exploratory Multi-domain Search on Web Data Sources with Liquid Queries
- Christian Liebing, Marius Feldmann, Jan Mosig and Alexander Schill. Tool Support for a Hybrid Development Methodology of Service-based Interactive Applications

POSTERS – I

PRESENTATION
DATE: WEDNESDAY, JUNE 22ND
ROOM: AKAMAS B
TIME: 16:00

EXHIBITION
DATE: THURSDAY, JUNE 23RD
ROOM: AKAMAS B
TIME: 09:00

- Alessandro Bozzon, Marco Brambilla, Laura Cigardi and Sara Comai. A Constraint Programming Approach to Automatic Layout Definition for Search Results
- Alessandro Bozzon, Marco Brambilla, Luca Cioria, Piero Fraternali and Maristella Matera. Model-Based Dynamic and Adaptive Visualization for Multi-Domain Search Results
- Christoph Trattner. NAVTAG - A Network-Theoretic Framework to Assess and Improve the Navigability of Tagging Systems
- Evanthia Faliagka, Lefteris Kozanidis, Sofia Stamou, Athanasios Tsakalidis and Giannis Tzimas. A personality mining system for automated applicant ranking in online recruitment system
- Enayat Rajabi and Mohsen Kahani. Designing a Step-by-step User Interface for Finding Provenance Information over Linked Data
- Marcos Baez, Fabio Casati and Maurizio Marchese. Knowledge Spaces: Scientific Knowledge Meets the Web
DEMONS & POSTERS

POSTERS – II

PRESENTATION

DATE: THURSDAY, JUNE 23RD
ROOM: AKAMAS B
TIME: 16:00

EXHIBITION

DATE: FRIDAY, JUNE 24TH
ROOM: AKAMAS B
TIME: 09:30

• Andrina Granić, Ivica Mitrovi and Nikola Maranguni. Development of the Evaluation Form for Expert Inspections of Web Portals
• Rosa Romero Gómez, David Díez Cebollero, Susana Montero Moreno, Paloma Díaz Pérez and Ignacio Aedo Cuevas. Taxonomy for Rich-User-Interface Components: Towards a Systematic Development of RIAs
• Jan Kasper Martinsen, Håkan Grahn and Anders Isberg. A Comparative Evaluation of JavaScript Execution Behavior
• Irum Rauf and Ivan Porres. Validating Behavioral RESTful Interfaces using Semantic Web Technologies
• Kevin Koidl, Owen Conlan and Vincent Wade. User-centric Cross-site Personalisation
• Heiko Desruelle, Dieter Blomme and Frank Gielen. Adaptive Mobile Web Applications: A Quantitative Evaluation Approach
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- Raphael Troncy
- Vassilis Tzouvaras
- Wolfram Wöß
Social Events

Welcome Reception

Date: Wednesday, June 22\textsuperscript{nd}
Start Time: 20:00
Location: Venue, Coral Beach Hotel - Terraces

Welcome Reception is the first social gathering between all conference delegates. This will take place at the Terraces of the venue hotel. The terraces are set in a prime location within the hotel where you can have amazing views of Coral Bay while having your cocktail and chatting with fellow colleagues.

Price for accompanying person: 35 Euro

Conference Dinner

Date: Thursday, June 23\textsuperscript{rd}
Time: 20:30 – 23:00
Location: Local Restaurant, Latchi Fishing Outlet
Departure Time: 19:45 (from Venue, Coral Beach Hotel – Lobby Area)

Conference Dinner will be held in a beautiful restaurant at Latchi village located just on Latchi harbor. The restaurant serves excellent fish dishes of Cypriot cuisine in a delicate appearance. Desserts, local wines and drinks will harmoniously complete the rich menu to be tasted. The event can definitely be considered as an opportunity to meet and get to know better fellow delegates in a different yet relaxed environment complemented by Greek festive music.

Price for accompanying person: 60 Euro

Other Optional Social Events

With regard to the optional social events below, please note that information will be provided onsite at the Conference Registration Desk at Coral Beach Hotel:

- Half-Day to Paphos, 21/06/2011 | [15:30-19:00] - Cost per person: €25
- Village Night Out, 21/06/2011 | [20:30-23:00] - Cost per person: €50
- Fish Night Out, 24/06/2011 | [20:30-23:00] - Cost per person: €50
- Full-Day Excursion to Nicosia, 25/06/2011 | [09:00-18:00] - Cost per person: €50
GENERAL INFORMATION

INTERNET ACCESS

Kindly note that free Wireless Internet access will be available in all conference areas and Lobby area of Coral Beach Hotel and Resort (Venue Hotel) during the ICWE 2011 Conference.

The SSID Name for Coral Beach area is: "Coral Beach Hotel" *(no password is required to get connected to this network)*.

TOURIST INFORMATION

For all tourist information concerning sites of interest; visit the official webpage of Cyprus Tourism Organisation [www.visitcyprus.com](http://www.visitcyprus.com).

AIRPORT TRANSFERS

**Taxi Transfers**

- From/to Larnaca International Airport to/from Hotel one way fare: 120 Euro
- From/to Paphos International Airport to/from Hotel one way fare: 50 Euro

Note: The above prices are per taxi per way for maximum up to 3 people sharing. You may book your departure taxi transfer at the ICWE Registration Desk.

PUBLIC TRANSPORTATION

**To Larnaca International Airport:**

Please note that currently, there is no direct bus service from Paphos to Larnaca Airport. However, you can follow the procedure below:

Option 1:

- Step 1 – Take OSYPa bus route 610 or 612 from Coral Bay in order to get to the Central Bus Station (Municipal Market). See the exact timetable at: [www.pafosbuses.com/cyprus](http://www.pafosbuses.com/cyprus). Another option is to take a taxi from the Municipal Market to get to your hotel.
- Step 2 – Use the Intercity Buses (Green Buses) in order to get to Limassol Airport Express shuttle service) at Limassol. Kindly note that Intercity bus service does not operate frequently. Please visit their webpage for more information and drop off points: [http://www.intercity-buses.com/](http://www.intercity-buses.com/)
- Step 3 – Use the Limassol Airport Express coaches at the cost of 8 Euro (one way) in order to reach Larnaca Airport. Please visit their webpage for more information: [http://www.airportshuttlebus.eu](http://www.airportshuttlebus.eu).
GENERAL INFORMATION

TO PAPHOS INTERNATIONAL AIRPORT:

OSYPA Bus Route 612 will be running from Coral Bay directly to Paphos Airport.

For the timetable and further info please visit: www.pafosbuses.com/cyprus.

INTERCITY ROUTES

You will be able to find all the newly operating OSYPA LTD routes within Paphos city centre and suburbs, where all the major sites and attractions are located, at: www.pafosbuses.com/cyprus.

LOCAL TAXI SERVICES

- Acropolis Taxis +357 26 951584
- Anemone Taxis +357 26 912131
- Aphrodite Taxis +357 26 934555

You also can ask the Reception desk of your hotel to call a taxi for you.

USEFUL CONTACT NUMBERS

EMERGENCY NUMBERS

If you are dialling a local number from your mobile, you first need to add the country code prefix 00357 before the number you intend to call.

In an emergency, dial 112 (free of charge). Ask for the emergency service that you require; Ambulance, Police (112 or 199). Give the address or location where help is needed. Making nuisance calls to the 112 emergency services is a criminal offence.

For Directory Enquiries, dial 11892 (to look up telephone numbers in Cyprus).

PRIVATE DOCTORS

- Dr. Michalis Markou - Tel: +357 99 647001, +357 26 947000

PHARMACIES

The nearest pharmacies to the conference venue are:

- Fylaktou Christakis | Michalaki Kyprianou Avenue, 19, Peyia | Tel: +357 26 815526
- Pharmacies (after hours) | Paphos | Tel: +357 90 901416
GENERAL INFORMATION

Hotel Contacts

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If at any given moment during your trip to Cyprus, or at any time throughout your stay, you find that you require assistance, please contact Mr. Petros Stratis at +357 99 653444.