

ROIS 2012

The logo for ROIS 2012 is centered in a white rounded rectangle. The letters 'ROIS' are in a large, yellow, sans-serif font. The letter 'O' is replaced by a realistic image of the Earth from space, showing blue oceans and white clouds. Below 'ROIS', the year '2012' is written in the same yellow, sans-serif font.

6th INTERNATIONAL CONFERENCE ON RESEARCH CHALLENGES IN INFORMATION SCIENCE

May 16 - 18, 2012 Valencia / Spain

PROGRAMME

WELCOME

RCIS 2012 is a conference of RCIS CONFERENCE SERIES and is sponsored by IEEE Spain Section and IEEE Spanish CS Joint Chapter.

The Sixth International Conference on Research Challenges in Information Science (RCIS) aims at providing an international forum for scientists, researchers, engineers and developers from a wide range of information science areas to exchange ideas and approaches in this evolving field. While presenting research findings and state-of-art solutions, you are especially invited to share experiences on new research challenges.



Prof. Óscar Pastor
Coference Chair RCIS 2012

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Oscar Pastor, Universitat Politècnica de València. Spain

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Beatriz Marin, Universitat Politècnica de València. Spain

Proceedings Chair **Sergio España**, Universitat Politècnica de València. Spain

KEYNOTES SPEAKERS

Jean Vanderdonckt, Louvain School of Management, Belgium

Xavier Franch, Universitat Politècnica de Catalunya, Spain

Anna Perini, Center for Information Technology - IRST, FBK, Italy

Vicente Pelechano, Universitat Politècnica de València, Spain

GENERAL INFORMATION

DATES AND VENUE

From Wednesday May 16th to Friday, May 18th , 2012

Hotel Beatriz Rey Don Jaime ****

Avda. Baleares N°2, 46023 Valencia

Telf: (+34)96 337 50 30

<http://www.beatrizhoteles.com/en/rey-don-jaime.html>

TECHNICAL SECRETARIAT



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Marià Cubí, 4 Pral - 08006 Barcelona – Spain

Tel. (34) 932.388.777 - Fax. (34) 932 387 488

rcis2012@pacifico-meetings.com

Technical Secretariat at the Venue and On-Site Registration

The Technical Secretariat and on-site registration desk will be opened at the Venue as follows:

- . **Wednesday, May 16th:** From 07:30h to 20:00h.
- . **Thursday, May 17th:** From 8:00h until 19:00h.
- . **Friday, May 18th:** From 8:00h until 19:30h.

REGISTRATION FEES

	Before March 23th (included)	After March 23th
Authors and attendees (IEEE Members)	450 euros	495 euros
Authors and attendees (Non IEEE Members)	490 euros	550 euros
Doctoral consortium paper	315 euros	370 euros
Industrial Track Pass (only Industrial day)	150 euros	
Conference dinner	20 euros	

VAT 8% included

Regular registration fee includes:

- Admission to all scientific sessions
- Daily coffee breaks
- Daily lunches
- Conference badge and kit
- Welcome cocktail on 16th

CANCELLATION POLICY

- In order to be considered all cancellations must be submitted in writing to rcis2012@pacifico-meetings.com
- Cancellations received before February 23rd, 2012: all amount will be refunded except 50€ as cancellation expenses.
- Cancellations received between February 23rd and March 31st 2012: 70% refund.
- Cancellations received after March 31st, 2012: no refund.

** Reimbursements will be processed after the close of the Conference*

SOCIAL EVENTS

- **Wednesday, May 16th** 19:30h-20:30h
Welcome Reception at the Hotel Beatriz Rey Don Jaime ****
- **Thursday, May 17th** 20:30
Conference Dinner: Hotel Balneario Las Arenas *****
Address: Eugenia Viñes 22-24 - 46011 Valencia
<http://www.hotel-lasarenas.com/>
** Transfers will not be provided*

OFFICIAL LANGUAGE

The official language of the Congress is English. No simultaneous translation will be provided.

BADGES AND SECURITY

It is essential that you wear your personal badge at all times while in the Congress venue and during the Social Events, as it is the official entrance pass to scientific sessions and other Congress activities. For the Social Events, it will also be necessary to present the corresponding ticket as well as the badge.

MEDICAL ASSISTANCE AND INSURANCE

Participants are advised to make their own arrangements regarding travel insurance and medical assistance during the Congress. Neither the Organization nor the Congress Secretariat are able to accept any responsibility whatsoever for damage or injury to persons or their belongings during the Congress.

PROGRAMME

Wednesday, 16 May 2012

07:30-08:30 Registration

S. TURIA

08:30-09:00 CONFERENCE OPENING - OSCAR PASTOR, GENERAL CHAIR

09:00-10:00 KEYNOTE TALK- SELF-ADAPTIVE SERVICE BASED APPLICATIONS:
CHALLENGES IN REQUIREMENTS ENGINEERING?

Anna Perini, FBK, Center for Information Technology - IRSTFBK, Italy
Chair: **Colette Rolland**

10:00-10:30 Coffee Break

S. TURIA

10:30-12:15 SESSION 1: ONTOLOGIES AND DATA WAREHOUSE

Chair: **Martine Collard**

- Ontologies as a Solution for Simultaneously Integrating and Reconciliating Data Sources
Abdelghani Bakhtouchi, Ladjel Bellatreche Stéphane Jean and Yamine Ait Ameer
- Transforming multidimensional models into OWL-DL ontologies
Nicolas Prat, Jacky Akoka and Isabelle Comyn-Wattiau
- A Data Warehouse Logical Design Method Based on the Alignment with Business Processes
Jacques Simonin, Sébastien Bigaret and Julie Gourmelen
- A First Step for Building a Document Warehouse: Unification of XML Documents (S)
Ines Ben Messaoud, Jamel Feki and Gilles Zurfluh

S. SOROLLA1

10:30-12:15 DC SESSION 1: PROCESSES

Mentors: **Peri Loucopoulos, Selmin Nurcan, Victoria Torres**

- Process-based Compliance: Probabilities
Margit Schwab
- A Quality Based Approach for the Analysis and Design of Business Process Models
Sarah Ayad
- Knowledge Service Model for Business Process Design
Ludmila Penicina

S. TURIA

12:15-13:45 SESSION 2: INFORMATION SEARCH, EXTRACTION AND MINING

Chair: **César González-Pérez**

- How to Extract Frequent Links with Frequent Itemsets in Social Networks?
Erick Stattner and Martine Collard
- Challenges to building a platform for a breast cancer risk score
Émilien Gauthier, Laurent Brisson, Philippe Lenca, Françoise Clavel-Chapelon and Stéphane Ragusa
- A Multi-level Hierarchical Index Structure for Supporting Efficient Similarity Search on Tag Sets
Jia-Ling Koh, Nonhlanhla Shongwe and Chung-Wen Cho

S. SOROLLA¹

12:15-13:45 DC SESSION 2: MODELS AND META-MODELS

Mentors: **Oscar Pastor, Renata Guizzardi, Colette Rolland**

- Handling Behavioral Semantics in Persistent Meta-Modeling Systems
Youness Bazhar
- Building CMS-based Web Applications Using a Model-driven Approach
Feliu Trias
- Interactive Use of Inductive Approach for Analyzing and Developing Conceptual Structures
Ilze Birzniece

13:45- 15:00 Lunch

S. TURIA

15:00-16:30 SESSION 3: SECURITY AND TRUST

Chair: **Xavier Franch**

- Extracting Security Requirements from Relevant Laws and Regulations
Fatemeh Zarrabi Jorshari, Haralambos Mouratidis and Shareeful Islam
- A Comparative Review of i*-based and Use Case-based Security Modelling Initiatives
Olawande Dararmola, Yushan Pan, Peter Karpati and Guttorm Sindre
- Dealing with Trust and Control A Meta-Model for Trustworthy Information Systems Development
Michalis Pavlidis, Haralambos Mouratidis and Shareeful Islam and Paul Kearney

S. SOROLLA¹

15:00-16:30 TUTORIAL 1: TECHNICAL ACTION RESEARCH: DESIGNING AND REASONING ABOUT SINGLE CASE EXPERIMENTS

Roel Wieringa

16:30-17:00 Coffee Break

S. TURIA

17:00- 19:00 SESSION 4: INFORMATION SYSTEMS AND SERVICES

Chair: **Selmin Nurcan**

- Applying Transdisciplinarity Principles in the Information Services Co-creation Process

Jolita Ralyté

- A Quality Model for Analysing Web Service Monitoring Tools

Oscar Cabrera and Xavier Franch

- An engineering method for context-aware and reactive systems

Ansem Ben Cheikh, Agnès Front, Jean Pierre Giraudin and Stéphane Coulondre

- Map-TBS: Map process enactment traces and analysis (S)

Charlotte Hug, Rebécca Deneckère and Camille Salinesi

- Evaluating Scalable Matching Tools: a quality-oriented approach (S)

Claudia Gutiérrez Rodríguez and Sana Sellami

S. SOROLLA¹

17:00- 19:00 DC SESSION 3: IS GENOME MANAGEMENT

Mentors: **Colette Rolland, Martine Collard, Agnes Koschmider**

- Wiki-Genome: A model-driven genome data management environment

Ana María Martínez Ferrandis

- Human Genome Conceptual Modeling: An ontological framework for the design and implementation of Genomic Information Systems

Ainoha Martín Mayordomo

- Design and Development of a Genomic Information System to Manage Breast Cancer Data

Verónica Burriel Coll

- An Agile Model-driven Approach for Simplifying the Development of Genetic Analysis Tools

Maria Jose Villanueva

S. TURIA

19:30-19:45 INAUGURATION ACT

Juan Juliá Igual, Rector Magnificus of Universitat Politècnica de València

19:45-20:30 WELCOME RECEPTION

Thursday, 17 May 2012

S. TURIA

9:00-10:00

KEYNOTE TALK – THE I* FRAMEWORK: THE WAY AHEAD

Xavier Franch, Universitat Politècnica de Catalunya, Spain

Chair: **Jaelson Castro**

10:00-10:30 Coffee Break

S. TURIA

10:30-12:15

SESSION 5: DATA PROVENANCE AND DATA QUERYING

Chair: **Jolita Ralyté**

- Stream Ancestor Function: A Mechanism for Fine-Grained Provenance in Stream Processing Systems,
Watsawee Sansrimahachai, Mark Weal and Luc Moreau
- XSLT Streamability Analysis with Recursive Schemas (S)
Pavel Labath
- QSQL2: Query Language Support for Logic-Based Similarity Conditions on Probabilistic Databases
Sebastian Lehrack, Sascha Saretz and Ingo Schmitt
- Condition Learning from User Preferences
Ingo Schmitt and David Zellhöfer

S. SOROLLA1

10:30-12:15

DC SESSION 4: MISCELLANEOUS

Mentors: **João Falcão e Cunha, Peri Loucopoulos, Victoria Torres**

- Using Configuration Management and Product Line Software Paradigms to Support the Experimentation Process in Software Engineering
Edison Gonzalo Espinosa Gallardo
- Modeling intentionality as an opening to the world
Yves Chamette

S. TURIA

12:15-13:45

SESSION 6: REQUIREMENTS ENGINEERING

Chair: **Renata Guizzardi**

- Systematic derivation of conceptual models from requirements models: a controlled experiment
Sergio España, Marcela Ruiz and Arturo González
- Decision-Making Method Family MADISE: Validation within the Requirements Engineering Domain
Elena Kornyshova and Rébecca Deneckère

- Cloud Computing Security Requirements: a Systematic Review (S)
Iliana Iankoulova and Maya Daneva
- Reuse of Spatial Concerns Based on Aspectual Requirements Analysis Patterns (S)
Sara Silva, João Araújo, Armanda Rodrigues, Matias Urbieta, Ana Moreira, Silvia Gordillo and Gustavo Rossi

S. SOROLLA¹

12:15-13:45 TUTORIAL 2: EMPIRICAL VALIDATION OF RESEARCH METHODS
Roel Wieringa

13:45-14:00 BEST PAPER AWARD

14:00- 15:00 Lunch

S. TURIA

15:00-16:30 SESSION 7: USER-CENTERED APPROACHES

Chair: **Rébecca Deneckère**

- UsiGesture: an Environment for Integrating Pen-based Interaction in User Interface Development
François Beuvs and Jean Vanderdonckt
- Modelling and Developing Distributed User Interfaces based on Distribution Graph
Jérémie Melchior, Jean Vanderdonckt and Peter Van Roy
- Conceptual Meta-Environment for Deaf Children Literacy Challenge
How to Design Effective Artifacts for Bilingualism Construction
Cayley Guimarães, Diego Roberto Antunes, Laura Garcia, André Guedes, Sueli Fernandes

S. SOROLLA¹

15:00-16:30 TUTORIAL 3: THE REPERTORY GRID: A TECHNIQUE FOR ELICITING THE PERSONAL CONSTRUCTS OF INDIVIDUALS
Felix B. Tan

16:30-17:00 Coffee Break

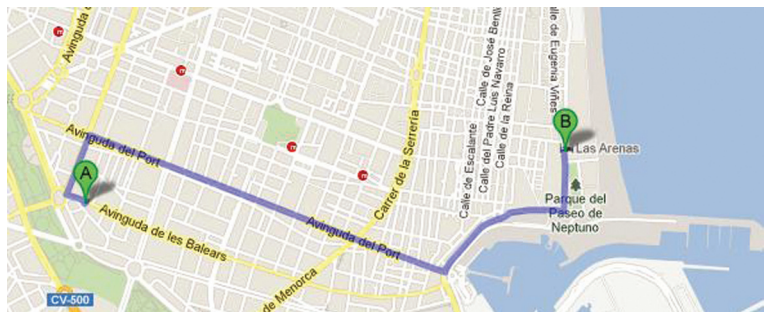
S. SOROLLA 1

17:00- 19:00 **SESSION 8: ONTOLOGIES, CONCEPTUAL MODELING AND INTEROPERABILITY**

Chair: **João Araújo**

- Applying a Foundational Ontology to Analyze Means-End Links in the i* Framework
Renata S.S. Guizzardi, Xavier Franch and Giancarlo Guizzardi
- Interoperability for Model-Driven Development: Current State and Future Challenges
Giovanni Giachetti, Francisco Valverde and Beatriz Marín
- A Conceptual Modelling Language for the Humanities and Social Sciences (S)
Cesar Gonzalez-Perez
- A Unifying Framework for the Definition of Syntactic Measures over Conceptual Schema Diagrams
Dolors Costal and Xavier Franch
- Toward a Knowledge Management Approach Based on an Ontology and Case-based Reasoning (CBR) Application to Railroad Accidents (S)
Ahmed Maalel, Lassad Mejri, Habib Hadj-Mabrouk and Henda Ben Ghezela

20:30-23:30 Congress Dinner at Hotel Las Arenas



A: Venue: Hotel Beatriz Rey Don Jaime
Avda. Balears N°2, 46023 Valencia

B: Congress Dinner Hotel Balneario Las Arenas
Calle de Eugenia Viñes, 22
46011 Valencia

Friday, 18 May 2012

S. SOROLLA 1

9:00-10:00 **KEYNOTE TALK – ANIMATED TRANSITIONS FOR EMPOWERING INTERACTIVE INFORMATION SYSTEMS**

Jean Vanderdonckt, Louvain School of Management, Belgium
Chair: **Oscar Pastor**

10:00-10:30 Coffee Break

S. TURIA

10:30-12:00 **INDUSTRIAL KEYNOTE TALK: AUTOMATING THE DEVELOPMENT OF INFORMATION SYSTEMS WITH THE MOSKITT OPEN SOURCE TOOL**

Vicente Pelechano, Universitat Politècnica de València
Chair: **Peri Loucopoulos**

S. SOROLLA 1

10:30-12:00 **TUTORIAL 4: MODEL-DRIVEN REQUIREMENTS ENGINEERING IN PRACTICE**

Sergio España and Arturo González

S. TURIA

12:00-13:30 **POSTERS AND DEMOS SESSION**

Chairs: **Selmin Nurcan, Sven Casteleyn**

- Diagen: A model-based bioinformatic tool for genetic analysis
Maria Jose Villanueva, Ana Rosa Guzmán, Francisco Valverde and Ana M. Levin
- Mastem: Multi-Agent System to Teaching and Evaluation of Mathematic
Jéssyka F.F. Vilela, Ricardo A. Ramos and Brauliro G. Leal
- Generating Multi-objective Optimized Configurable Business Process Models
Andrés Jiménez-Ramírez, Irene Barba, Carmelo Del Valle and Barbara Weber
- Simulation of Energy Social Smart Grid using Assemblage Theory and Simplicial Complex Tool
Eddie Soulier, Philippe Calvez and Florie Bugeaud
- Persistence in Data Warehousing
Thorsten Winsemann and Veit Köppen
- Web 2.0 Patterns: A Model-driven Engineering Approach
Ana Rosa Guzmán, Victoria López, Francisco Valverde and Jose Ignacio Panach

- The Role of Software in Cultural Heritage Issues: Types, User Needs and Design Guidelines based on Principles of Interaction
Patricia Martin-Rodilla
- Towards a methodological framework for the Government Process Management
Amina Cherouana and Latifa Mahdaoui
- Towards Automated Education Demand-Offer Information Monitoring: the Information Extraction
Peteris Rudzajs

S. TURIA

12:00-13:30 TUTORIAL 5: IMPROVISATIONAL THEATER FOR INFORMATION SYSTEMS: BREATHING COLLABORATION AND CREATIVITY INTO YOUR DEVELOPMENTS
Martin Mahaux, Patrick Heymans

S. TURIA

13:30-13:45 CLOSING CEREMONY

13:45- 15:00 Lunch

S. SOROLLA 2

10:30-19:00 INDUSTRIAL DAY

Be Fit, Fast and Alert when testing, maintaining or solving bugs of your Future Internet applications, FITTEST & FastFIX & ALERT & Io. Test Joint Workshop

16:30-17:00 Coffee Break

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