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
Conference Chair RCIS 2012
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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

TECHNICAL SECRETARIAT

GRUPO PACÍFICO
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 08:00h until 19:00h.
- **Friday, May 18th**: From 08:00h until 19:30h.

REGISTRATION FEES

<table>
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<tr>
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<th>Before March 23th (included)</th>
<th>After March 23th</th>
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<tr>
<td>Authors and attendees</td>
<td>450 euros</td>
<td>495 euros</td>
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<td>Authors and attendees</td>
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<td>Doctoral consortium paper</td>
<td>315 euros</td>
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<td>Industrial Track Pass</td>
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<td>(only Industrial day)</td>
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<td>Conference dinner</td>
<td>20 euros</td>
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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 Ameur
- 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) Means short paper
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

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

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 Daramola, 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. SOROLLA
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 Ralytė
- 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. SOROLLA
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 Martinez 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

(S) Means short paper
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 QUERFYING

Chair: *Jolita Ralyté*

  *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 Chaumette*

**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*

*(S) Means short paper*
• 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 Uribeta, Ana Moreira, Silvia Gordillo and Gustavo Rossi

S. SOROLLA 1
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 Beuvens 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. SOROLLA 1
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) Means short paper
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 Ghezel

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

A: Venue: Hotel Beatriz Rey Don Jaime
   Avda. Baleares Nº2, 46023 Valencia

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

(S) Means short paper
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
  María Jose Villanueva, Ana Rosa Guzmán, Francisco Valverde and Ana M. Levin
- Mastem: Multi-Agent System to Teaching and Evaluation of Mathematic
  Jessyka 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