

**12<sup>th</sup> International Conference on Applied Computing (AC)**  
**&**  
**14<sup>th</sup> International Conference on WWW/INTERNET (ICWI)**  
**2015**

**Maynooth, Greater Dublin, Ireland**  
**CONFERENCE PROGRAM**

**Saturday 24<sup>th</sup>, October 2015**

**08:30-19:00 Welcome Desk**

**10:00-10:10 Session O – Opening Session**  
**(Room JHL5)**

**OPENING SESSION**

*Prof. Hans Weghorn and Prof. Pedro Isaías*

**10:10-11:10 Session KL1 – Keynote Presentation**  
**(Room JHL5)**

**ENABLING PROVENANCE ON THE WEB:  
STANDARDIZATION AND RESEARCH QUESTIONS**

*By Professor Luc Moreau, University of Southampton, UK*

**11:10-11:35 Coffee Break**

**11:35-12:50 Session FRP 24.1**  
**Case Studies and Applications**  
**(Room JHL5)**

**Chair: Robert Roggio**

**HARDWARE VALIDATION FOR CONTROL OF  
THREE-PHASE GRID-CONNECTED MICROGRIDS USING  
ARTIFICIAL NEURAL NETWORKS (F064)**  
*Shuhui Li, Eduardo Alonso, Xingang Fu, Michael Fairbank,  
Ishan Jaithwa and Donald C. Wunsch*

**ALGORITHMS PERFORMANCE ANALYSIS IN VIRTUAL  
ENVIRONMENTS OF CLOUD COMPUTING WITH  
HADOOP BENCHMARK PLATFORM USING STATISTICAL  
METHODS (F014)**

*Ricardo Soares Bôaventura, Gustavo Prado Oliveira, Manoel Braz  
de Andrade Maciel, Keiji Yamanaka, Hugo Xavier Rocha,  
Igor Santos Peretta and Edmilson Rodrigues Pinto*

**KEY TECHNOLOGIES FOR LINKING BODY SENSOR  
NETWORKS IN PERSONAL SPORTS APPLICATIONS TO  
ANDROID SMARTPHONES (R044)**

*Hans Weghorn*

**11:35-13:05 Session FP 24.2**  
**Human Computer Interaction and Usability**  
**(Room JHL6)**

**Chair: Huberta Kritzenberger**

**ACCESSIBILITY CHECKERS FOR THE WEB: HOW  
RELIABLE ARE THEY, ACTUALLY? (F057)**

*Till Halbach and Wojtek Lyszkiewicz*

**USABILITY EVALUATION OF THE TOUCH SCREEN AND  
MOUSE AS INPUT DEVICES BY PEOPLE WITH  
INTELLECTUAL DISABILITIES (F063)**

*Tânia Rocha, Diana Carvalho, Ramiro Gonçalves, José Martins,  
Frederico Branco and Maximino Bessa*

**EXPLORING USER PERCEPTIONS OF ONLINE PRIVACY  
DISCLOSURES (F043)**

*Helia Marreiros, Richard Gomer, Michael Vlassopoulos,  
Mirco Tonin and Monica C. Schraefel*

**13:00-14:30 Lunch Break**

**14:30-15:30 Session FP 24.3**  
**Software Engineering**  
**(Room JHL5)**

**Chair: Andrea Trentini**

**METHODS FOR USING SCRUM IN LARGE  
DEVELOPMENT ORGANIZATIONS: A META REVIEW  
(F037)**

*David P. King Jr. and Robert F. Roggio*

**SUPPORT OF USER ORIENTED SOFTWARE EVALUATION  
AND SELECTION (F052)**

*Junko Shirogane*

**14:30-15:30 Session FSP 24.4**  
**e-Government // Applications and Uses**  
**(Room JHL6)**

**Chair: Andre Constantino da Silva**

**A DEVELOPMENT MODEL FOR E-GOVERNMENT BASED  
ON ICT GOVERNANCE CONCEPTS (F071)**

*Gabriel Ulian Brigano, Bruno Bogaz Zarpelão, Rodolfo Miranda  
de Barros and Leonardo de Souza Mendes*

**TOWARDS A REMEDIAL AND REHABILITATION  
E-TOURISM SYSTEM (S084)**

*Orestis Meikopoulos, Manolis Vavalis and Magda Foti*

**WEB-BASED INFORMATION SYSTEM TO SUPPORT RISK  
MANAGEMENT FOR THE PREVENTION OF INFECTIOUS  
DISEASE OUTBREAKS (P036)**

*Masashi Inoue and Shinsaku Hasegawa*

**15:30-16:30 Session KL2 – Keynote Presentation**  
**(Room JHL5)**

**APPLIED COMPUTING: THEORY, IMPLEMENTATION,  
APPLICATION**

*By Dr. Dhiya Al-Jumeily, Liverpool John Moores University, UK*

**16:30-17:00 Coffee Break**

**17:00-18:15 Session FRP 24.5**  
**Usability Issues // Technologies for E-Learning**  
**(Room JHL5)**

**Chair: Alberto Marroquin**

**TOWARDS THE IMPROVEMENT OF W3C WEB CONTENT  
ACCESSIBILITY GUIDELINES (F024)**

*José R. Hilera, Eva García, Antonio García, Concha Batanero*

**USABILITY EVALUATION BY TYPICALLY DEVELOPING  
CHILDREN OF A CUSTOM GAME SYSTEM DESIGNED  
FOR CHILDREN WITH CEREBRAL PALSY (F035)**

*Brett Wilkinson and David Hobbs*

**DESIGNING A TABLET-BASED CLASSROOM  
MANAGEMENT SYSTEM (R047)**

*Patrick Armstrong and Brett Wilkinson*

**17:00-18:50 Session FSP 24.6**  
**Social Networks // Web 2.0**  
**(Room JHL6)**  
**Chair: Manolis Vavalis**

**TRAVELTANT: SOCIAL NETWORK-BASED RESTAURANT RECOMMENDER SYSTEM (F062)**  
*Sultan Alfarhood and Susan Gauch*  
**ESTIMATING SENTIMENT OF TWEETS BY LEARNING SOCIAL BOOKMARK DATA (F047)**  
*Yasuyuki Okamura, Takayuki Yumoto, Manabu Nii and Naotake Kamiura*  
**EVOLVING SOCIAL MEDIA: A LOOK AT THE DEVELOPMENT OF VALUE CREATION MODELS (F060)**  
*Refad Bader and Kyeong Kang*  
**TREND ANALYSIS FRAMEWORK (S054)**  
*Radek Malinský and Ivan Jelínek*

**11:00-11:30 Coffee Break**

**11:30-13:00 Session FP 25.3**  
**Networking // Parallel and Distributed Systems**  
**(Room JHL5)**  
**Chair: Bhaskar Dasgupta**

**BOOTTORRENT: PEER-TO-PEER FAST NETWORK BOOT (F077)**  
*Davide Bruschi and Andrea Trentini*  
**TESTING COMMUNICATION PROTOCOLS WITHIN TEST CASES DEPENDENCIES FRAMEWORK (F060)**  
*Alberto Marroquín, Diego Calderón and Stephane Maag*  
**OPTIMISING DATA-PARALLEL PERFORMANCE WITH A COST MODEL IN THE PRESENCE OF EXTERNAL LOAD (F071)**  
*Turkey Alsalkini and Greg Michaelson*

**11:30-12:50 Session FSP 25.4**  
**Ontologies**  
**(Room JHL6)**  
**Chair: Takayuki Yumoto**

**INTERPRETING QUERIES TO RELATIONAL DATABASES VIA DOMAIN ONTOLOGIES (F029)**  
*Walquíria Fernandes Marins, João Carlos da Silva and Plínio de Sá Leitão-Júnior*  
**ONTOLOGY FOR CONCEPTS'S INTEGRATION OF CORPORATE SUSTAINABILITY INDEX (ISE) AND G4 GUIDELINES OF GLOBAL REPORTING INITIATIVE (F052)**  
*Tâmara Batista Reis and Paulo Caetano da Silva*  
**PEDAGOGICAL DIAGNOSTICS AS DOMAIN FOR KNOWLEDGE PATTERNS (S028)**  
*Rostislav Miarka and Martin Žáček*

## Sunday 25<sup>th</sup>, October 2015

**08:30-15:45 Welcome Desk**

**08:50-11:00 Session FSP 25.1**  
**Applied Information Systems // Security**  
**(Room JHL5)**  
**Chair: Hans Weghorn**

**SECURITY IN COMMUNITY SENSOR NETWORKS (F056)**  
*Unai Perez and José Enrique Armendáriz-Iñigo*  
**AN INTELLIGENT MULTI-AGENT BASED PROBLEM MANAGEMENT SYSTEM FOR INDUSTRIAL AUTOMATION SYSTEMS (F059)**  
*Huiqiang Wang, Nasser Jazdi and Peter Goehner*  
**DETERMINISTIC FAULT ATTACK OVER THE STREAM CIPHER MICKEY (F040)**  
*Nirmalya Kar, Bhaskar Biswas, Subhrajyoti Deb and Baby Bhattacharya*  
**A WEB COMPUTATIONAL PLATFORM FOR LITTORAL HYDRODYNAMICS MODELLING (S053)**  
*Romain Chailan and Fabien Rétif*  
**ON THE DETECTION OF DENIAL OF SERVICE ATTACKS USING CLUSTERING (S065)**  
*Yousra Chabchoub and Jan Neuzil*

**10:00-11:00 Session FP 25.2**  
**e-Commerce / e-Business**  
**(Room JHL6)**  
**Chair: Helia Marreiros**

**AN EYE TRACKING STUDY OF OPTIONAL DECISION CONSTRUCTS IN B2C TRANSACTIONAL PROCESSES (F031)**  
*Mairéad Hogan, Chris Barry and Ann M. Torres*  
**INTERNET BANKING ADOPTION IN JORDAN: THE SERVQUAL EXTENSION (F033)**  
*Emad Abu-Shanab and Hind Talafha*

**13:00-14:30 Lunch Break**

**14:30-15:30 Session FP 25.5**  
**Data Mining**  
**(Room JHL5)**  
**Chair: Joerg Frochte**

**ON THE DEPENDANCIES OF QUERIES EXECUTION TIME AND MEMORY CONSUMPTION IN C-SPARQL (F013)**  
*Yousra Chabchoub, Zakia Kazi-Aoul, Amadou Fall Dia and Rayane El Sibai*  
**HUMAN-MICROBIOME-RELATIONS EXTRACTION AND VISUALIZATION SYSTEM WITH CONTEXT-DEPENDENT CLUSTERING AND SEMANTIC ANALYSIS (F029)**  
*Shiori Hikichi, Shiori Sasaki and Yasushi Kiyoki*

**14:30-15:20 Session FSP 25.6**  
**Internet Architectures // Mobile Web**  
**(Room JHL6)**  
**Chair: Mairéad Hogan**

**ON EVALUATING INTERNET OF THINGS IN CENTRALIZED AND DISTRIBUTED ARCHITECTURES (F086)**  
*Bruno Schmidt Marques, Igor Fontana de Nardin, Gustavo Rostirolla, Cristiano André da Costa and Rodrigo da Rosa Righi*  
**AN ANDROID HASKELL APPLICATION (S019)**  
*Julián E. Gutiérrez Ferrara and Pablo E. Martínez López*

**15:50 – Social Event - Conference Tour and Dinner**

## Monday 26<sup>th</sup>, October 2015

08:30-13:00 Welcome Desk

09:10-11:00 Session FSP 26.1

**Data Mining**

**(Room JHL5)**

**Chair: Hans Weghorn**

**ANALYSIS OF EXTREME EVENTS USING A DATA MINING APPROACH (F079)**

*Heloisa M. Ruivo, Haroldo F. de Campos Velho, Fernando M. Ramos and Saulo R. Freitas*

**LEARNING LOAD BALANCING FOR SIMULATION IN HETEROGENEOUS SYSTEMS (F057)**

*Irina Bernst, Christof Kaufmann and Jörg Frochte*

**MULTISPECTRAL IMAGE CLASSIFICATION OF SHADED AND NON-SHADED LAND-COVER PATTERNS (F084)**

*Wanessa da Silva, José Renato Garcia Braga, Haroldo Fraga de Campos Velho and Elcio Hideiti Shiguemori*

**DIMENSIONALITY REDUCTION USING ROUGH SET APPROACH FOR CLIMATE PREDICTION (S087)**

*Juliana Aparecida Anochi and Haroldo Fraga de Campos Velho*

09:30-11:00 Session FSRDP 26.2

**Digital Rights Management // e-Society**

**(Room JHL6)**

**Chair: Emad Abu-Shanab**

**ENABLING CONTENT AND RIGHTS TRANSMISSION IN THE EDUCATIONAL FIELD WITH ARMS (F023)**

*Joaquim Marques and Carlos Serrão*

**A SURVEY OF CYBERBULLYING AMONGST STUDENTS IN IRELAND'S HIGHER EDUCATION SECTOR (S089)**

*Clare Doherty and Michael Lang*

**DIGITAL INCLUSION AND SOCIAL PERSPECTIVE – CRITICAL DISCUSSION BASED ON A SYSTEMATIC REVIEW OF THE LITERATURE (R006)**

*Jheimer Julián Sepúlveda López and Luz Arabany Ramírez Castañeda*

**THE COMPLEXITY OF DIGITAL INCLUSION – RELEVANCE OF THE SOCIAL PERSPECTIVE (D007)**

*Jheimer Julián Sepúlveda López and Luz Arabany Ramírez Castañeda*

11:00-11:30 Coffee Break

11:30-13:00 Session FP 26.3

**Intelligent Systems // Agent Systems and Applications**

**(Room JHL5)**

**Chair: Joerg Frochte**

**FITTING MULTIVARIATE GAUSSIAN DISTRIBUTIONS WITH OPTIMUM-PATH FOREST AND ITS APPLICATION FOR ANOMALY DETECTION (F019)**

*Leandro Aparecido Passos Júnior, Kelton Augusto Pontara da Costa and João Paulo Papa*

**PARAMETER-SETTING FREE HARMONY SEARCH OPTIMIZATION OF RESTRICTED BOLTZMANN MACHINES AND ITS APPLICATIONS TO SPAM DETECTION (F022)**

*Luis A. da Silva, Kelton A. P. da Costa, Patricia B. Ribeiro, Gustavo Rosa and João Paulo Papa*

**LIQUIDITY AND RESILIENCE OF CREDIT NETWORK: A SIMULATION STUDY (F025)**

*Yu Cao and Bhaskar DasGupta*

11:30-12:50 Session FSP 26.4

**Human Computer Interaction and Usability**

**(Room JHL6)**

**Chair: Till Halbach**

**A COGNITIVE BASED MODEL FOR DIALOGUE MANAGEMENT IN MULTIMODAL INTERACTION SYSTEMS (F011)**

*Jonathan S. Prates, Sandro J. Rigo, Cristiano A. Costa and Jorge. L. V. Barbosa*

**IDENTIFYING INTERACTION PROBLEMS ON WEB APPLICATIONS DUE TO THE CHANGE OF INPUT MODALITY: A STUDY ABOUT KINECT, GOOGLE MAPS AND GOOGLE STREET VIEW (S069)**

*André Constantino da Silva, Gustavo Dalapola Ramos Farias, Alan de Souza Figueiredo Gomes and Francisco Eduardo Rodrigues da Silva*

**EXPLORATIONS ON TOUCHLESS GESTURE INTERACTION WITH A 3D WEB APPLICATION (S083)**

*Huberta Kritzenberger*

**INTEGRATING MOBILE DEVICES' RESOURCES AND FUNCTIONALITIES WITH TELEDUC LEARNING ENVIRONMENT (P074)**

*André Constantino da Silva, Fernanda M. P. Freire and Gabriel P. Pereira*

13:00 Best Paper Awards Ceremony and Closing Session  
**(Room JHL5)**

*Prof. Hans Weghorn and Prof. Pedro Isaías*