2015 IEEE 19th International Conference on Computer Supported Cooperative Work in Design

(CSCWD 2015)

Calabria, Italy
6-8 May 2015
# Table of Contents

## Keynote Papers

Andrea Omicini. [Event-Based vs. Multi-Agent Systems: Towards a Unified Conceptual Framework.](#) 1

Wil M.P. van der Aalst, Wei Zhe Low, Moe T. Wynn and Arthur H.M. ter Hofstede. [Change Your History: Learning from Event Logs to Improve Processes.](#) 7

Gregory M.P. O’Hare, Dominic Carr and Michael. J. O’Grady. [Collaborative Sensing: Delivering an Intelligent and Adaptive Sensing Infrastructure.](#) 13

## Regular Papers

Yuki Kaeri, Kenji Sugawara, Yusuke Manabe and Claude Moulin. [Prototyping a Meeting Support System using Ubiquitous Agents.](#) 18

Edenilson Silva, Cesar A. Tacla, Jean-Paul Barthes, Milton Ramos and Emerson Paraíso. [A Collaborative Virtual Workspace for Software Development.](#) 24

Majd Saleh, Marie-Helene Abel and Veronique Misseri. [Investigating the Similarity Between Collaboration Systems and Digital Ecosystems.](#) 30

Cristian Lai, Carole Salis, Fabrizio Murgia, Franco Atzori, Marie Florence Helga Wilson. [ANDASA, a web platform for enhancing networks of knowledge and innovation.](#) 36

Pierre-Emmanuel Arduin. [On the Measurement of Cooperative Compatibility to Predict Meaning Variance.](#) 42

Ning Wang, Marie-Hélène Abel, Jean-Paul Barthès and Elsa Negre. [Mining User Competency from Semantic Trace.](#) 48

Nathália Lopes, Maria Gilda P. Esteves, Jano Souza and Patrícia Prado. [A Checklist for Peer Knowledge Validation in Project-Based Organizations.](#) 54

Marie-Hélène Abel, Véronique Misséri and David Versailles. [About the Relevance of Digital Ecosystems for Collaborative Expert Group Projects.](#) 60

Bin Lei, Hao Chen, Liangcai Zeng and Quanjie Gao. [Second-order Consensus Algorithm with Input Constraints for Swarm Robots Formation Control.](#) 66


Fernanda Ribeiro, Melise Paula and Jano Souza. [The use of Information Visualization Techniques in the Collaborative Context.](#) 79

Zedadra Ouarda, Jouandeau Nicolas, Hamid Seridi and Giancarlo Fortino. [Design and Analysis of Cooperative and Non Cooperative Stigmergy-based Models for Foraging.](#) 85

Rui Wang, Qimin Peng and Xiaohui Hu. [Software Architecture Construction and Collaboration based on Service Dependency.](#) 91

Rong Yin, Feng Zhang, Min Liu, Feng Gui, Fei Li and Weiming Shen. [Communication Model of Embedded Multi-protocol Gateway for MRO Online Monitoring System.](#) 97
Ahlem Askri, Mansour Rached and Sadok Ben Yahia. Mono-objective and multi-objective models for the pickup and delivery problem with time windows.

Luiz Felipe Oliveira, Daniel Schneider, Jano Souza and Sérgio A. Rodrigues. Leveraging the crowd collaboration to monitor the waiting time of day-to-day services.

Jorge E. Luzuriaga, Miguel Perez, Pablo Boronat, Juan Carlos Cano, Carlos Calafate and Pietro Manzoni. Impact of Mobility on Message Oriented Middleware (MOM) Protocols for Collaborative Applications in Transportation.

Lucian Luncean, Costin Badica and Alex Becheru. Initial Evaluation of an Ontology for Transport Brokering.

You Song, Ye Zhang, Li Deng, Pengyu Du, Yunfeng Luo and Shuyuan Zhang. A Cooperative Design Model Based on Vertex-Colored Graph.

Alfredo Milani and Valentina Franzoni. Semantic Context Extraction from Collaborative Networks.

Tianchi Zhang, Ji Li, Jing Zhang, Jianpei Zhang and Haiyuan Chen. Survey on Modeling.

Jean-Paul Barthes and Marcio Fuckner. ONTOCODESIGN: an Exercise in Using Agents to Cooperatively Develop the CSCWD Ontology.


Iyubanit Rodríguez, Macarena Oteo, Samuel Gleisner and Valeria Herskovic. SINCOM: communicating grandparents and grandchildren living at a distance.

Martin Boeckle and Jasminko Novak. Explorative Analysis of Applying Collaborative Visual Annotations in Online Discussions to Support the Ideation of Products or Services.


Hao Chen, Yinsheng Li, Jianping Shen and Jinghao Bian. Online service search based on multi-dimensional semantic service model.

Lun Wang, Tun Lu, Hansu Gu, Xianghua Ding and Ning Gu. Influential User Recommendation through SVD based Topic Diversification.

Marcio Fuckner, Jean-Paul Barthes and Edson E. Scalabrin. Selecting and combining services using goals: A step towards goal-driven processes.


Shaohua Teng, Hao Wu, Wei Zhang, Dongning Liu and Lu Liang. A Cooperative Modeling of User Experience based on the Improved SVM.


Alex Becheru and Lucian Luncean. Organisational Network Analysis within the Academic World: Initial Steps.

Rubén Fuentes-Fernández and Daniela Xavier. Supporting community annotation with tailored tools.

Leovy Eccheverría and Ruth Cobos. Designing the assessment of the collaborative learning process in LMS courses.

Yuhui Wang, Amy J.C. Trappey and Tzu-Han Chow. Incorporating quality function deployment to e-discovery system exploring Voice-over-LTE service technology.
Pasquale Pace, Gianluca Aloj and Giancarlo Fortino. An Application-Level Framework for UAV/Rover Communication and Coordination. 229

Xiaodan Gu, Ming Yang and Junzhou Luo. A Novel Website Fingerprinting Attack against Multi-tab Browsing Behavior. 234

Li-Feng Huang, Xi Liu and Vincent Ng. Associating Sentimental Orientation of Chinese Neologism in Social Media Data. 240

Jing Ye, Yasuhiito Noguchi and Tomoo Inoue. Effect of Multiple Auditory Localization for Multi-Participant Remote Conversation. 247


Davide Vega, Roc Meseguer, Felix Freitag and Sergio Ochoa. Motivating the non-technical participation in technical communities. 259

Josiane M. Pinheiro, Cesar A. Tacla and Emerson C. Paraíso. Are Folksonomies Shared Conceptualizations? 265

Feng Gui, Yunlong Ma, Feng Zhang, Min Liu, Fei Li, Weiming Shen and Hua Bai. A Distributed Frequent Itemset Mining Algorithm Based on Spark. 271

Jiaxin Zhao, Gongzhuang Peng and Heming Zhang. Schedule and cost integrated estimation for complex product modeling based on Weibull distribution. 276

Yanling Feng and Guozhu Jia. Scheduling under hybrid mode with additive manufacturing. 281

Meng Wang, Zhenhua Duan, Cong Tian and Nan Zhang. Verification of A Real Time Scheduling Protocol of Safety-Critical Systems. 286

Neeraj Nehra, Rahat Iqbal, Anne James and Amit Dua. Collaborative P2P Context-Aware Information Propagation in Vehicular Ad Hoc Networks. 292

Haiyan Xu and Xiaoping Li. Group scheduling for complex products with time-dependent deteriorating effect. 297

Wei Shen, Dingfang Chen, Lijie Li and Menglun Tao. Modeling and Simulation of Vibration Energy Harvester with Piezomagnetoelastic Beam Array. 303

Geng Sun, Tingru Cui, Jianming Yong, Jun Shen and Shiping Chen. Drawing Micro Learning into MOOC: Using Fragmented Pieces of Time to Enable Effective Entire Course Learning Experiences. 308

Bo Tang, Tun Lu, Hansu Gu, Xianghua Ding and Ning Gu. Measuring Domain-Specific User Influence in Microblogs: An Actor-Network Theory Based Approach. 314

Qiang Li and Xiaofeng Wang. Collective Traces Modeling in Collaborative Working Environment. 320

Jiacai Wang and Takao Terano. Facilitating collaborative design through feature recognition and scripting representation. 325

Ruizhong Wei and Kun Hou. Indoor Location Based on WiFi. 331

Xin Lu, Sheng Wang and Weidong Li. Development of a WSN based real time energy monitoring platform for industrial applications. 337

Xiwen Fu, Wenfeng Li, Huahong Ming and Giancarlo Fortino. A Framework for WSN-based Opportunistic Networks. 343

Giandomenico Spezzano, Andrea Giordano, Andrea Vinci and Harry Sunarsa. Twitter to Integrate Human and Smart Objects by a Web of Things Architecture.


Feng Wang, Chong Su, Guangyu Mu and Xiaozhen Mi. An Axiomatic Design Optimization for Suction Reed Valve Component of Compressors.

Hongwei Ma, Zhihui Hu, Yong Hu, Yanfang Yang and Jiquan Hu. Research on Structure analysis and Simulation Optimization of Parallel Grooved Multi-layer Drum Based on ANSYS Workbench.


Ye Zhong, Wenhong Li, Wenjing Guo, Gabriël Lodewijks and Lanpeng Gong. A method of modeling and service encapsulation on cloud logistics resources.

Shijie Li, Huarong Zheng, Rudy R. Negenborn and Gabriel Lodewijks. Coordination for Efficient Transport over Water.

Fan Feng, Yusong Pang, Gabriel Lodewijks and Wenhong Li. Agent-based Negotiation and Decision-making for Efficient Hinterland Transport Plan.

Mark B. Duinkerken. Routing of AGVs on Automated Container Terminals.

You Song, Wentao Wei, Li Deng, Pengyu Du, Ye Zhang and Dianhui Nie. 3D-CollaDesign : A Real-time Collaborative System for Web 3D Design.

Ruizhong Wei and Xiaochuan Lin. Vector Signature for Face Recognition.

Armando Cruz, Hugo Paredes, Benjamim Fonseca and Leonel Morgado. Fitting Three Dimensional Virtual Worlds into CSCW.


Alessandro Sabato. Pedestrian bridge vibration monitoring using a wireless MEMS accelerometer board.

Bertrand David and Rene Chalon. Situated Cooperative Work in engineering How put togheter predictable and repeatable behaviors with creativity and agility.


Flavio França, Adriana Vivacqua and Maria Luiza Campos. Designing a Gamification Mechanism to Encourage Contributions in a Crowdsourcing Systems.

467


472

Alfredo Cuzzocrea, Mohamed Gaber and Staci Lattimer. Spatio-Temporal Analysis of Greenhouse Gas Data Via Clustering Techniques.

478


484


489


494


499

Tai Feng Li, Peigen Li, Wenlong Li, Liang Gao, Jin Yi and Yuewei Bai. Cuckoo Search-based Range Image Registration for Freeform Surface Inspeccion.

505

Zhenning Sun, Yanfang Yang, Jiquan Hu and Huaiyu Yan. Design of the intelligent braking system with PLC based on the USS interface protocol.

511


516

Jietao Dong, Linxuan Zhang, Tianyuan Xiao and Hui Li. A dynamic part supply method for automated mixed-model assembly lines.

523


528

Amy J.C. Trappey, Lynn Wei-Lin Chen and Charles Trappey. Computer supported formal concept analysis to explore the evolution of patent litigation.

534


540

Jun Chen, Tun Lu, Guo Li, Tiejiang Liu, Xianghua Ding and Ning Gu. Provenance based Diagnosis for Scientific Workflows.

549

Peng Zhi Xie, You Song, Yue Wang, Yunfeng Luo and Ye Zhang. A Solution for Web Service Composition Based on Logic-Interface Orchestration.

555

Fu Peiguo, Peng Qinmin and Hu Xiaohui. A web service composition system based on Semantic Parsing*.

561


570


576


582

Yiqi Wu, Fazhi He, Dejun Zhang and Xiaoxia Li. Feature-based Data Exchange as Service for Cloud Design and Manufacturing.

Gongzhuang Peng, Jiaxin Zhao, Minghui Li, Heming Zhang and Baocun Hou. A SLA-based Scheduling Approach for Multi-tenant Cloud Simulation.

Xiaoping Li, Lihua Qian and Jie Yang. Cloud workflow scheduling with deadline and time slots constraints.


Marcio Cunha and Hugo Fuks. AmbLEDs: Collaborative Healthcare for AAL Systems.

Alessandro Longheu, Vincenza Carchiolo and Michele Malgeri. Personal Health Record feeding via medical forums.


Taotao Ma and Hua Wang. Causal dependencies of provenance data in healthcare environment.