CSCWD 2013 Final Technical Program

June 27-29, 2013, Whistler Conference Centre, Whistler, BC, Canada

Wednesday June 26, 2013

17:00 – 20:00   Registration & Reception (Valley Foyer, Whistler Conference Centre)

Thursday June 27, 2013

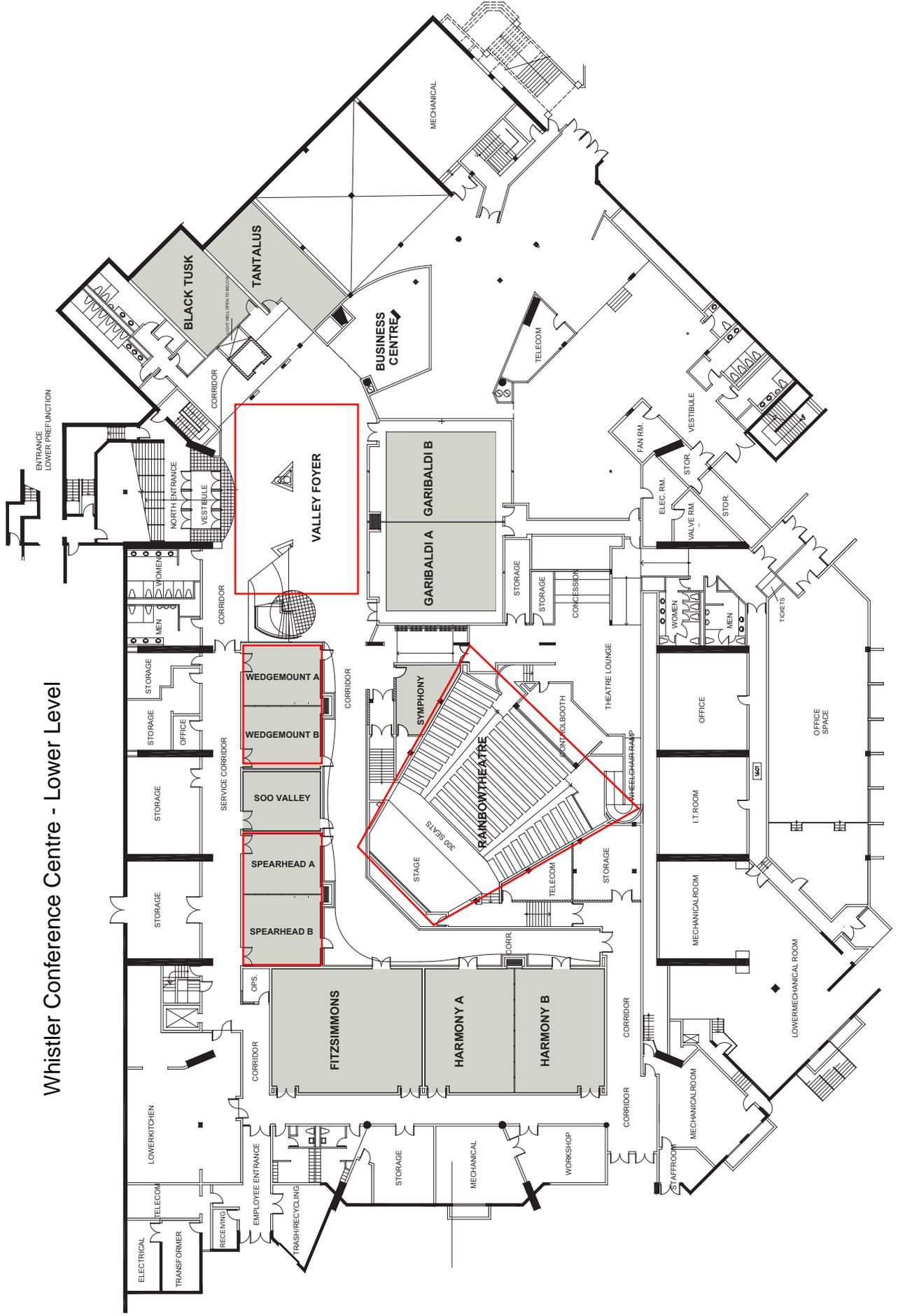|	
07:30 - 17:30	Registration (Valley Foyer)
08:30 - 09:00	Opening Plenary (Rainbow Theatre)
09:00 – 10:00	Keynote Speech: Mengchu Zhou, Internet of Things: Recent Advances and Applications (Rainbow Theatre)
10:00 – 10:20	Coffee/Tea Break (Valley Foyer)
10:20 – 12:00	Session A1 (Rainbow Theatre)	Session B1 (Wedgemount)	Session C1 (Spearhead)
12:00 – 13:00	Lunch (Valley Foyer)
13:00 – 15:00	Session A2 (Rainbow Theatre)	Session B2 (Wedgemount)	Session C2 (Spearhead)
15:00 – 15:20	Coffee/Tea Break (Valley Foyer)
15:20 – 17:00	Session A3 (Rainbow Theatre)	Session B3 (Wedgemount)	Session C3 (Spearhead)
18:00 – 21:00	IEEE SMC CSCWD TC & CSCWD Steering Committee Meeting

Friday June 28, 2013

08:30 - 09:30	Keynote Speech: Thomas Froese, Trends in Information and Communication Technologies for Construction: Past, Present and Future (Rainbow Theatre)
09:30 – 10:00	Coffee/Tea Break (Valley Foyer)
10:00 – 12:00	Session A4 (Rainbow Theatre)	Session B4 (Wedgemount)	Session C4 (Spearhead)
12:00 – 13:00	Lunch (Valley Foyer)
13:00 – 15:00	Session A5 (Rainbow Theatre)	Session B5 (Wedgemount)	Session C5 (Spearhead)
15:00 – 15:20	Coffee/Tea Break (Valley Foyer)
15:20 – 17:00	Session A6 (Rainbow Theatre)	Session B6 (Wedgemount)	Session C6 (Spearhead)
19:00 – 22:00	Conference Banquet (Valley Foyer)

Saturday June 29, 2013

08:30 – 09:30	Keynote Speech: Kuo-Ming Chao, Sharing Summarised Semantic Data Rather Than Just Data (Rainbow Theatre)
09:30 – 10:00	Coffee/Tea Break (Valley Foyer)
10:00 – 11:40	Session A7 (Rainbow Theatre)	Session B7 (Wedgemount)	Session C7 (Spearhead)
11:40 – 12:00	Best Paper Awards and Closing Ceremony (Rainbow Theatre)
12:00 – 13:00	Lunch (Valley Foyer)

Whistler Conference Centre - Lower Level

BLACK TUSK

TANTALUS

BUSINESS CENTRE

MECHANICAL

ENTRANCE
LOWER PREFUNCTION

CORRIDOR

NORTH ENTRANCE

VESTIBULE

VALLEY FOYER

GARIBALDI A **GARIBALDI B**

TELECOM

VESTIBULE

WOMEN

MEN

CORRIDOR

STORAGE

STORAGE

STORAGE

STORAGE

OFFICE

WEDGEMOUNT A

WEDGEMOUNT B

CORRIDOR

SERVICE CORRIDOR

SOO VALLEY

SPEARHEAD A

SPEARHEAD B

SYMPHONY

STORAGE

CONCESSION

WOMEN

MEN

FAN RM.

ELEC. RM.

VALVE RM.

STOR.

STOR.

TICKETS

RAINBOW THEATRE

300 SEATS

STAGE

CONTROL BOOTH

THEATRE LOUNGE

WHEELCHAIR RAMP

TELECOM

STORAGE

OFFICE

I.T. ROOM

OFFICE SPACE

MECHANICAL ROOM

LOWER MECHANICAL ROOM

CORRIDOR

CORRIDOR

MECHANICAL ROOM

STAFF ROOM

FITZSIMMONS

HARMONY A

HARMONY B

OPS.

CORRIDOR

CORR.

CORRIDOR

LOWER KITCHEN

ELECTRICAL

TRANSFORMER

TELECOM

RECEIVING

EMPLOYEE ENTRANCE

TRASH/RECYCLING

STORAGE

MECHANICAL

WORKSHOP

A1: Collaboration Methods and Techniques (1). Chairs: Milton Ramos / Weidong Li

10 Bo Yang, Qingke Zhang, Lin Wang and Yi Li. Inference of Differential Equations by M-MEP for Cement Hydration Modeling

29 Liping Gao, Shuxian Guo, Yuben Zhang, Shanshan Wang, Qingkui Chen and Tun Lu. Solving Two Special Dependency Conflicts in Real-time Collaborative Design Systems

30 Lucas Galete, Milton Ramos, Julio Nievola and Emerson Paraiso. Dynamically Modeling Users with MODUS-SD and Kohonen's Map

42 Xiantao Cai, Fazhi He, Weidong Li, Xiaoxia Li and Yiqi Wu. Multi-Granularity Partial Encryption Method of CAD Model

55 Hong Shen and Xiaoping Li. Cooperative Discrete Particle Swarms for Multi-mode Resource-constrained Projects

A2: Collaboration Methods and Techniques (2). Chairs: Jonice Oliveira / Weidong Li

62 Davide Vega, Roc Meseguer, Felix Freitag and Sergio Ochoa. Effort-Based Incentives for Resource Sharing in Collaborative Volunteer Applications

107 Sergio Palma J. Medeiros, Jano Moreira de Souza, Vanessa Janni Epelbaum and Maria Gilda P. Esteves. Fuzzy Prospective Scenarios in Strategic Planning in Large-Group Decision

108 Matthias Wenzel, Lutz Gericke, Raja Gumienny and Christoph Meinel. Towards Cross-Platform Collaboration - Transferring Real-Time Groupware to the Browser

109 Edson Lucas, Daniel Schneider, Toacy Oliveira and Jano de Souza. A Survey of Languages to Represent Collaboration as a Means of Designing CSCW Facilities in RDL

116 Alexandre P. Uchoa, Maria Gilda P. Esteves and Jano M. Souza. Mix4Crowds - Toward a Framework to Design Crowd Collaboration with Science

137 Jonice Oliveira, Andressa Silva and Raphael Franckini. Collaborative Information Gathering and Recommendation Using Mobile Computing

A3: Collaboration Methods and Techniques (3). Chairs: Zhenhua Duan / Anne James

138 Peng Zhang, Zhenhua Duan and Cong Tian. Simulation of CTCS-3 Protocol with Temporal Logic Programming

140 Adam Grzywaczewski, Rahat Iqbal, Anne James and John Halloran. Supporting Information Exchange Among Software Developers Through The Development Of Collaborative Information Retrieval Utilities

146 Mandeep Pannu, Anne James and Rachid Anane. Hybrid Profiling in Information Retrieval

133 Zhongda Yuan, Yuchun Ma, Jinian Bian, and Kang Zhao. Automatic Enhanced CDFG Generation based on Runtime Instrumentation

134 Guoqiang Liang, Yuchun Ma, Kang Zhao and Jinian Bian. Efficient Custom Instruction Generation Based on Characterizing of Basic Blocks

A4: Agents and Multi-Agent Systems. Chairs: Jean-Paul Barthes / Haibin Zhu

2 Hao Wang, Jian Cao and Xiaogang Wang. A Distributed Algorithm for Agent Coalition Formation with Complex Tasks

4 Xiyu Liu, Jie Xue and Xiaolin Yu. A Muti-Agent Membrane Computing Technique for Conceptual Design

48 Hong Liu. The Cooperative Reinforcement Learning in a Multi-Agent Design System

67 Haibin Zhu and Luming Feng. An Efficient Approach to Group Role Assignment with Conflicting Agents

122 Tiago Santos, Carlos Coutinho, Ricardo Goncalves and Adina Cretan. Negotiation Environment for Enterprise Interoperability Sustainability

A5: Collaborative Workflows. Chairs: Flavia M. Santoro / Pedro Antunes

6 Venlakaisa Hölttä, Petri Mannonen and Sampo Teräs. Design Communication Types in a Buyer-Supplier Relationship

38 Yong Sun, Wenan Tan, Ler Li, Guangzhen Lu and Anqiong Tang. SLAs Detective Control Model for Workflow Composition of Cloud Services

60 Xing Huang, Tun Lu, Xianghua Ding, Tiejiang Liu and Ning Gu. A Provenance-based Solution for Software Selection in Scientific Software Sharing

77 Chun Zhang, Huachao Mao, Gongzhuang Peng and Heming Zhang. A Novel BOM based Multi-Resolution Model for Federated Simulation

100 Pedro Antunes, Valeria Herskovic, Sergio Ochoa and Jose A. Pino. Modeling Highly Collaborative Processes

112 Joanne Manhães Netto, Juliana B. S. França, Flavia A. Santoro, Fernanda Araujo Baiao and Flavia M. Santoro. A Notation for Knowledge-Intensive Processes

A6: Collaboration Platforms, Software Tools, and Services (1). Chairs: Nelson Baloian / Kuo-Ming Chao

61   Md. Anwar Hossain Masud and Xiaodi Huang. ESaaS: A New Software Paradigm for Supporting Higher Education in Cloud Environment

22   Azam Beg, Amr Elchouemi and Raahim Beg. A Collaborative Platform for Facilitating Standard Cell Characterization

33   Cheng Zheng, Weiming Shen and Hamada Ghenniwa. An Intents-based Approach for Service Discovery and Integration

41   Nelson Baloian, Francisco Gutierrez and Gustavo Zurita. A Framework for Developing Distributed Collaborative Applications Using HTML5

57   Tao Wu, Hui He, Xiqian Gu, Ying Peng, Yi Zhang, Yuntao Zhou and Senzhe Xu. An Intelligent Network User Behavior Analysis System Based on Collaborative Markov Model and Distributed Data Processing

A7: Collaboration Platforms, Software Tools, and Services (2). Chairs: Jose Pino / Jiang-Liang Hou

73   Juliana do E. Santo Carvalho, Flavia Maria Santoro, Kate Revoredo and Vanessa Tavares Nunes. Learning Context to Adapt Business Processes

97   Ramon R. Palacio, German Padilla, Alberto L. Morán, Joaquin Cortez and Aurora Vizcaíno.   Supporting Component Presence Notifications in Software Development

120   Tom Nysetvold and Chia-Chi Teng.   Collaboration Tools for Multi-User CAD

148   Jiang-Liang Hou and Yong-Jhih Chen. Development and Application of Optimization Model for Customized Text Summarization

101   David Suarez, Alvaro Monares, Sergio Ochoa, Jose A. Pino and Manuel Ibarra. Improving the Support to Decision Making in Medium-sized Urban Emergencies

B1: Collaboration Technology Applications in Manufacturing (1). Chairs: Xiaoping Li / Hongbo Sun

12   Xia Zhu and Xiaoping Li. An Adaptive Intelligent Method for Manufacturing Process Optimization In Steelworks

17   Xue Bai and Xiyu Liu. Design of E-commerce Development Roadmap for SMEs by DNA Computing Technique

26   Shuo Zhang, Xiaodong Zhang, Yang Hu and Yingzi Li. Simulation Study on Collaborative Behaviors in Mass Collaborative Product Development

40   Pingyu Jiang, Chaoyang Zhang, Lei Zhang, Weidong Li and Peihua Gu. Evaluating Part Machining Processes for Low-Carbon and Energy-Efficiency Contexts on Web

43   Xiaoyu Wen, Xinyu Li, Liang Gao, Wenwen Wang and Liang Wan. Improved Genetic Algorithm with External Archive Maintenance for multi-Objective Integrated Process Planning and Scheduling

B2: Collaboration Technology Applications in Manufacturing (2). Chairs: Wenhui Fan / Xiaozhen Mi

50   Sizhu Zhou and Lun Qin. Parametric Design of Turbodrill Bearing Section based on VB and Solidworks

52   Xiaozhen Mi, Feng Wang, Libin Fu and Daliang Zheng. Study on the Collaborative Design System Based on Skeleton Model for High Speed Train Body

68   Ning Liu and Xiaoping Li. A multilevel Modeling Framework for Semantic Representation of Cloud Manufacturing Resources

74   Yang Yang, Xinyu Li and Liang Gao. Parameters Optimization of a Multi-pass Milling Process based on Imperialist Competitive Algorithm

75   Yanbing Liu, Hongbo Sun, Tianyuan Xiao and Wenhui Fan. Constructing Federate Collaboration Ontology by UML Profiles

76   Xiaohui Wang, Zhiwei Lin and Renwei Xia. SIMP based Topology Optimization of a Folding Wing with Mixed Design Variables

B3: Collaboration Technology Applications in Manufacturing (3). Chairs: Liang Gao / Yinsheng Li

81   Qing Wu, Xinyu Li, Liang Gao and Ying Li. A Simplified Electromagnetism-like Mechanism Algorithm for Tool Path Planning in 5-Axis Flank Milling

85   Zhuangcheng Liu, Shuai Ma, Yanjun Shi and Hongfei Teng. Solving Multi-objective Flexible Job Shop Scheduling with Transportation Constraints using a Micro Artificial Bee Colony Algorithm

91   Sara Bouzid, Corine Cauvet, Claudia Frydman and Jacques Pinaton. A Semantic Support to Improve the Collaborative Control of Manufacturing Processes in Industries

92   Stefan Silcher, Jan Königsberger, Peter Reimann and Bernhard Mitschang. Cooperative Service Registries for the Service-based Product Lifecycle Management Architecture

111   Hongwei Wang, Hao Qin and Heming Zhang. Managing Engineering Analysis Knowledge

B4: Collaboration Technology Applications in Manufacturing (4). Chairs: Marcel Langer / Chen-Fang Tsai

20 Wangwei Chu, Yingguang Li, Wenping Mou, Changqing Liu and Limin Tang. A Reliability Prediction Method of Process Plan for Aircraft Structural Parts based on Fuzzy Comprehensive Evaluation

143 Sudeep Ghimire, Ricardo Jardim-Goncalves, Antonio Grilo and Miguel Beca. Framework for Inter-operative e-Procurement Marketplace

147 Xiaoxia Li, Weidong Li, Xiantao Cai and Fazhi He. A Honey-bee Mating Optimization Approach of Collaborative Process Planning and Scheduling for Sustainable Manufacturing

149 Xingguang Fu, Marcel Langer and Dirk Söffker. Toward a Modeling of Human-centered, Rule-based Cooperative Teamwork

B5: Ontology and Interoperability. Chairs: Cesar Tacla / Emerson Paraiso

13 Amy J.C. Trappey, Charles V. Trappey, Hsin-Yi Peng and Tong-Mei Wang. Ontology-based Dental Implant Connection Patent Analysis

15 Cesar A. Tacla, Eliane de Bortoli, Gustavo Giménez-Lugo, Jean M. Simão, Josiane Dall'Agnol and Emerson Paraiso. An Abstract Model for Identifying Potential Teams and Communities

19 Laurent Wouters, Yuki Kaeri and Kenji Sugawara. Multi-Domain Multi-Lingual Collaborative Design

47 Cheng Zheng, Weiming Shen and Hemada Ghenniwa. Design and Implementation of Intents User Agent

69 Diego Arize, Rita Suzana P. Maciel and José Maria N. David. ThesIS: A Semantic Interoperability Service for a Middleware Service Oriented Architecture

105 Josivan Pereira de Souza, Cesar Augusto Tacla, Franciele Beal, Emerson Paraiso and Gustavo A. Gim´enez-Lugo. An Ontology-Based Agent for Context Aware Software Process Development

B6. Special Session: Coordination of Collaborative Supply Chains & Enterprise Networks. Chairs: Amy Trappey / Naoufel Cheikhrouhou

110 Mansour Rached, Armand Baboli, Zied Bahroun and Jean-Pierre Campagne. Mathematical Model for Assignment Policies and Information Sharing in a Supply Chain

24 Wafa Ghonaim, Hamada Ghenniwa and Weiming Shen. A GSP Double Auction for Smart Exchange

3   Chen-Fang Tsai. An Optimizer of Grey-Genetic Algorithms to Improve the Prediction Efficiency for Taiwan Import and Export Pollution

86 Hamza Ben Abdallah, Naoufel Cheikhrouhou, Zied Bahroun and Mansour Rached. A Bi-objective Model for Collaborative Planning in Dyadic Supply Chain

11 Amy J.C. Trappey, Squall Chun-Yi Wu, Mike F.M. Yeh and Andy Y.F. Kuo. ISO14051-based Material Flow Cost Accounting System Framework for Collaborative Green Manufacturing

B7: Collaboration Technology Applications in Architecture, Engineering, Construction. Chairs: Ta-Ping Lu / Weidong Li

35 Faisal Syafar and Jing Gao. Mobile Collaboration Technology in Engineering Asset Maintenance: A Delphi Study

90 Marianthi Leon and Richard Laing. Towards A Computer Mediated Methodology for Collaborative Design during the Early Architectural Design Stages

123 Guangyuan Wang, Hua Wang, Xiaohui Tao and Ji Zhang. A Self-Stabilizing Protocol for Minimal Weighted Dominating Sets in Arbitrary Networks

131 James Harty and Richard Laing. Facilitating Meaningful Collaboration in Architectural Design through the Adoption of BIM

65 Ching-Lung Lin, Yuan-Chuen Hwang and Hsiu-Chen Lin. Study of the Efficiency Improvement in Power Generation from Photovoltaic

C1: Workshop on Internet of Things and Logistics (1). Chairs: Giancarlo Fortino / Wenfeng Li

124 Yulian Cao, Wenfeng Li, Wei Song and W. Art Chaovalitwongse. Collaborative Material and Production Tracking in Toy Manufacturing

127 Jiehan Zhou, Teemu Leppänen, Erkki Harjula, Mika Ylianttila, Timo Ojala, Chen Yu, Hai Jin and Laurence Tianruo Yang. CloudThings: a Common Architecture for Integrating the Internet of Things with Cloud Computing

129 Jing Sun, Yinsheng Li and Kuo-Ming Chao. A RFID-based Tracing Service of Waste Electrical and Electronic Equipment

132   Wei Wang, Bo Liu, Ming Yang, Junzhou Luo and Xiaojun Shen. Max-Cut Based Overlapping Channel Assignment for 802.11 Multi-Radio Wireless Mesh Networks

144   Giancarlo Fortino, Raffaele Greco and Antonio Guerrieri. Modeling and Evaluation of the Building Management Framework based on the Castalia WSN Simulator

C2: Workshop on Internet of Things and Logistics (2). Chairs: Giancarlo Fortino / Wenfeng Li

145   Xiuwen Fu, Wenfeng Li and Giancarlo Fortino. A Utility-Oriented Routing Algorithm for Community Based Opportunistic Networks

80   Zhuo Zhou and Min Liu. A Data Processing Framework for IoT based Online Monitoring System

32   Emil Jimenez and Ruizhong Wei. Indoor Localization of Ubiquitous Heterogeneous Devices

99   Yulong Zou, Xainbin Wang and Weiming Shen. Eavesdropping Attack in Collaborative Wireless Networks: Security Protocols and Intercept Behavior

49   Daniel Moreno, Sergio F. Ochoa, Rodrigo Santos and Roc Messeguer. Geo-Localized Messages Irradiation using Smartphones: An Energy Consumption Analysis

C3: Collaborative computing (Clouds, Grids, and Web Services). Chairs: Flávia Santoro / Junzhou Luo

44   Lijuan Wang, Jun Shen, Changyan Di, Yan Li and Qingguo Zhou. Towards Minimizing Cost for Composite Data-Intensive Services

53   Geng Sun, Jun Shen, Junzhou Luo and Jianmin Yong. Evaluations of Heuristic Algorithms for Teamwork-Enhanced Task Allocation in Mobile Cloud-Based Learning

78   Raafat Omar Aburukba, Hamada Ghenniwa and Weiming Shen. Bidding Specification Language and Winner Determination for Grid Computing Scheduling

130   Jinghui Zhang, Junzhou Luo and Fang Dong. Scheduling Parallel Task Graphs on Non-dedicated Heterogeneous Multicluster Platform with Moldable Task Duplication

135   Ednilson Veloso Moura, Flávia Maria Santoro and Fernanda Araujo Baião. Collaborative Support for Knowledge-Intensive Processes through a Service-based Approach

C4: Collaboration Technology Applications in Healthcare. Chairs: Hwa Gyoo Park / Sergio Ochoa

18   Ta-Ping Lu, Jui-Tien Shih, Cholada Kittipittayakorn and Geng-Feng Lian. Improving Outpatient Service Quality in Department of Orthopedic Surgery by Using Collaborative Approaches

37   Amado Velazquez, Alejandro Hernandez and Sergio F. Ochoa. Design of Exergames with the Collaborative Participation of Older Adults

117   Carla Pereira, Maria Gilda P. Esteves, Sergio Medeiros, Jano Souza and Marcio Antelio. How the Crowd Can Change the Collaborative Work in Patient Care

136   Hwa Gyoo Park. Research on Developing Clinical Collaborative Communication Systems

56   Yingying Deng, Tun Lu, Huanhuan Xia, Dongsheng Li, Tiejiang Liu, Xianghua Ding and Ning Gu. AOPUT: A Recommendation Framework Based on Social Activities and Content Interests

C5: Collaboration Technology Applications in Social Networks and Entertainment (1). Chairs: Rahat Iqbal / Jianming Yong

7   Sandra Regina Rocha Silva and Geraldo B. Xexéo. Child Search Framework: A collaborative information retrieval architecture to assist children in the search process

31   Xujuan Zhou, Xiaohui Tao and Jianming Yong. Sentiment Analysis on Tweets for Social Events

64   Phil Thompson, Anne James and Antonios Nanos. V-ROOM: Virtual Meeting System Trial

66   Iván Claros and Ruth Cobos. Social Media Learning: an Approach for Composition of Multimedia Interactive Object in a Collaborative Learning Environment

79   Feng Zhang and Min Liu. Quantum Ant Colony Algorithm-Based Emergency Evacuation Path Choice

C6: Collaboration Technology Applications in Social Networks and Entertainment (2). Chairs: Jano de Souza / Vincent Ng

88   Étienne Deparis, Marie-Helene Abel, Gaëlle Lortal and Juliette Mattioli. Designing a System to Capitalize Both Social and Documentary Resources

96   Ho Leung Li, Vincent T. Y. Ng and Simon C. K. Shiu. Predicting Short Interval Tracking Polls with Online Social Media

115   Carlos Gomes, Daniel Schneider, Jano de Souza, and Geraldo Xexéo. Cassino Musical: A Game with a Purpose for Social Recruitment and Measurement of Musical Talent

C7:   Collaborative Virtual Environments. Chairs: Chih-Hsing Chu / Marcos Borges