KEYNOTES AND PLENARY PAPERS

Talking in the Zooniverse: A Collaborative Tool for Citizen Scientists
Lucy Fortson, Stuart Lynn
School of Physics and Astronomy, University of Minnesota – Twin Cities, Minnesota, USA; Citizen Science Department, Adler Planetarium, Illinois, USA

TUESDAY, MAY 20, 2014

Social Computing, New Media and Networks Tuesday, May 20 10:20-12:20

1. Identifying and Shifting Social Media Network Patterns with NodeXL
Marc Smith
Connected Action, Inc., and Social Media Research Foundation, California, USA

2. Elite Size and Resilience Impact on Global System Structuration in Social Media
Sorin Adam Matei, Wutao Tan, Michael Zhu, Chuanhai Liu, Elisa Bertino, Jeremy Foote
Purdue School of Communications, Purdue University, Indiana, USA

Thomas Ernste
University of Minnesota – Twin Cities, Minnesota, USA

4. Design and Implementation of Web-based Collaborative Social Curation
Abbas Ali Butt, Jaehyuk Park, Yong-Moo Kwon
IMRC - Korea Institute of Science and Technology (KIST), Seoul, South Korea; University of Science and Technology, Daejeon, South Korea

5. Combining Smart Energy Meters with Social Media: Increasing Energy Awareness using Data Visualization and Persuasive Technologies
Julie Marie Røsok
Østfold University College, Halden, Norway

Virtual Teams and Collaborative Teamwork Tuesday, May 20 13:20-15:20

1. Leadership Styles and Their Effect on the Structure of Communication Response Patterns among Global Virtual Teams
Ian Brooks, Kathy Swigger
University of North Texas, Texas, USA

2. Asynchronous Understanding of Creative Sessions using Archived Collaboration Artifacts
Lutz Gericke, Matthias Wenzel, Christoph Meinel
Hasso-Plattner-Institut, Potsdam, Germany

3. Notifications Management in Distributed Development Environments: A Case Study
Hani Bani-Salameh, Clinton Jeffery
The Hashemite University, Zarqa, Jordan; University of Idaho, Idaho, USA
4. Semantic Conflict Reduction Through Automated Feature Reservation in Multi-user Computer-Aided Design
   Ammon Hepworth, Bryce DeFigueiredo, Devin Shumway, Nathan Fronk, C. Greg Jensen
   Brigham Young University, Utah, USA

Human Centered Systems and Collaboration Awareness  Tuesday, May 20  15:40-17:00

1. Supporting Practice-centered Awareness in Computer-Mediated Collaboration across Communities of Practice
   Obinna Anya, Hissam Tawfik
   IBM Research - Almaden, California, USA; Liverpool Hope University, U.K.

2. A Case Study in Seeding Collaboration Transformation with Experience Themes
   Faith McCreary, Marla Gomez, Cindy Pickering, Susan Michalek, Anne McEwan, Deidre Ali
   Intel Corporation, Oregon, USA; Emerson Network Power, Ohio, USA

   Víctor R. Martínez Palacios, Víctor M. González
   Instituto Tecnológico Autónomo de México (ITAM), Mexico City, Mexico

The Second International Symposium on Big Data and Data Analytics in Collaboration (BDDAC 2014)  Tuesday, May 20  10:20-12:20

1. Large-scale Entity Extraction and Probabilistic Record Linkage
   Flavio Villanustre, Reed Elsevier
   LexisNexis Risk Solutions, Georgia, USA

2. sCooL: A System for Academic Institution Name Normalization
   Ferosh Jacob, Faizan Javed, Meng Zhao, Matt Menair
   CareerBuilder.com, Georgia, USA

3. Deep Linguistic Analysis based NLP for Accurate Sentiment Analysis in Social Media
   Antonio Valderrabanos, Enrique Torrejón
   BITEXT, Madrid, Spain

4. Handling Class Imbalance in Customer Behavior Prediction
   Nengbao Liu, Wei Lee Woon, Zeyar Aung, Afshin Afshari
   Masdar Institute of Science and Technology, Abu Dhabi, United Arab Emirates

5. Defining Architecture Components of the Big Data Ecosystem
   Yuri Demchenko, Cees de Laat, Peter Membrey
   University of Amsterdam, The Netherlands; Hong Kong Polytechnic University, Hong Kong SAR, China

The Fifth International Collaborative Robots and Human Robot Interaction (CR-HRI 2014)
Tuesday, May 20  13:20-15:20 &  Tuesday, May 20  15:40-17:00

   Selma Šabanović
   School of Informatics and Computing, Indiana University - Bloomington, Indiana, USA

2. Alignment or Collaboration? How Implicit Views of Communication Influence Robot Design
   Kerstin Fischer
   IFKI - University of Southern Denmark, Denmark

3. Human-Like Motion of a Humanoid in a Shadowing Task
   Yasser Mohammad, Toyoaki Nishida
   Arunkumar Ramaswamy, Bruno Monsuez, Adriana Tapus
   ENSTA-ParisTech, Palaiseau, France; VeDeCom Institute, Versailles, France

5. Studying Verbal Feedback in Human Collaborations to Inform Robot Speech Production
   Aaron St. Clair, Maja Matarić
   University of Southern California - Los Angeles, California, USA

6. PopArm: A Robot Arm for Embodying Video-Mediated Pointing Behaviors
   Yuya Onishi, Kazuaki Tanaka, Hideyuki Nakanishi
   Osaka University - Suita, Osaka, Japan

Tuesday, May 20 10:20-12:20 & Tuesday, May 20 13:20-15:20

1. CollAC: Collaborative Access Control
   Stan Damen, Jerry den Hartog, Nicola Zannone
   Technische Universiteit Eindhoven, The Netherlands

2. A Non-Technical XACML Target Editor for Dynamic Access Control Systems
   Bernard Stepień, Amy Felty, Stan Matwin
   University of Ottawa, Ontario, Canada; Dalhousie University, Nova Scotia, Canada

3. Securing Cognitive Radio Networks against Belief Manipulation Attacks via Trust Management
   Onur Savas, Gahng Seop Ahn, Julia Deng
   Intelligent Automation, Inc., Rockville, MD 20855, Maryland, USA

4. Addressing Privacy Issues in Location-based Collaborative and Distributed Environment
   Andrea Saracino, Daniele Sgandurra, Dayana Spagnuelo
   Istituto di Informatica e Telematica - Consiglio Nazionale delle Ricerche (CNR), Italy; Universidade Federal de Santa Catarina, Brazil

5. REDIR: Automated Static Detection of Obfuscated Anti-Debugging Techniques
   Adam J. Smith, Robert F. Mills, Adam R. Bryant, Gilbert L. Peterson, Michael R. Grimalia
   Air Force Institute of Technology; Cyber Research Laboratory - Riverside Research, Ohio, USA

6. Mobile Malware Security Challenges and Cloud-Based Detection
   Nicholas F. Penning, Michael Hoffman, Jason Nikolai, Yong Wang
   Dakota State University - Madison, South Dakota, USA

7. Enhanced Mobile Security Using SIM Encryption
   Nader Nassar, Richard Newhook, Grant Miller
   CIO Lab - Somers, IBM Corporation, New York; CIO Lab – Egg Harbor City, IBM Corporation, New Jersey; CIO Lab - Arvada, IBM Corporation, Colorado, USA

   Yong Wang, Karthik Vangury, Jason Nikolai
   Dakota State University - Madison, South Dakota, USA

9. EMV-TLS, A Secure Payment Protocol for NFC Enabled Mobiles
   Pascal Urien
   Telecom ParisTech, Paris, France
10. Pay2You Places: The Mobile Payment with Geo-location
Marc Pasquet, Ndiaga Faye, Joan Reynaud
Laboratoire GREYC, UNICAEN (Université Normande, France), ENSICAEN, CNRS, Caen, France

Intelligent Human-Machine Interfaces, Multimodality and Collaborative Interaction
Tuesday, May 20 15:30-17:00

1. Device Ecologies to Support Collaborative Learning in Classrooms
Emma Mercier (Invited)
University of Illinois at Urbana-Champaign, Illinois, USA

2. Cross-Device Transfer in a Collaborative Multi-Surface Environment without User Identification
Stacey D. Scott, Guillaume Besacier, Phillip J. McClelland
University of Waterloo, 200 University Ave, Waterloo, ON, Canada

3. Acting Together by Mutual Control: Evaluating a Multimodal Interaction Concept for Cooperative Driving
Markus Zimmermann, Stefan Bauer, Niklas Lütteken, Iris Maria Rothkirch, Klaus Bengler
Institute of Ergonomics, Technische Universität München, Germany

POSTER SESSION & RECEPTION Tuesday, May 20 17:40-21:00

POSTER PAPERS

1. Information Exchange and Fusion in a Collaborative Environment using Semantic Information Requirements
Joshua M. Powers, Keith D. Shapiro, David S. Monk
Securboration Inc., Florida, USA; CST Corporation, Scott AFB, Illinois, USA

2. An Effective Approach Using Eco-feedback to Motivate Energy Conservation Behaviors
Hieu Huynh Chi
Ostfold University College, Halden, Norway

3. Saving Energy with Pleasure: Designing EnergyRace Web Application
Ksenia Dmitrieva
Østfold University College, Halden, Norway

Que Tran
Ostfold University College, Halden, Norway

5. Collaborative System to Investigate Mental Models: the Information Architecture Automatic Tool (IAAT)
Cristina Olaverri-Monreal, Joel Goncalves
Technische Universität München, Germany

6. A New Scheme to Evaluate the Accuracy of Knowledge Representation in Automated Breast Cancer Diagnosis
Juan Shan, Lin Li
Pace University, New York, USA; Murray State University, Kentucky, USA

7. Disaster Relief Management and Resilience Using Photovoltaic Energy
Salahuddin Qazi, William Young
State University of New York Institute of Technology, New York, USA; SUN Tree Consulting, Florida, USA

TECHNICAL POSTERS
1. **From Microscope to Computer: Using Facebook to Assist Medical Laboratory Scientists in Nigeria Access and Navigate eLearning Courses**  
Jarret Cassaniti, Lisa Mwaikambo, Rebecca Shore, Nandini Jayarajan  
Center for Communication Programs, Johns Hopkins University, Maryland, USA

2. **Semantic Search & Integration to Climate Data**  
Ranjeet Devarakonda, Girirprakash Palanisamy, Line C. Pouchard, Biva Shrestha  
Oak Ridge National Laboratory, Tennessee, USA

3. **Triggering Creativity through Semantic Cross-domain Web Crawling and Routing**  
Francesco Taglino, Fabrizio Smith  
Institute for System Analysis and Computer Science, CNR, Rome, Italy

4. **Integration of Emerging Learning Technologies in Secondary Schools: A Burkina Faso Case Study**  
Romaric R. Zongo  
University of Minnesota – Twin Cities, Minnesota, USA

5. **Visualization of Energy Consumption: Motivating for a Sustainable Behaviour Through Social Media**  
Caroline Sofie Olsen  
Østfold University College, Halden, Norway

**INDUSTRIAL POSTERS**

1. TBA  
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(TBA)

**WEDNESDAY, MAY 21, 2014**

**Collaborative Logistics, Planning, Services, and Management of Business Processes**  
Wednesday, May 21  8:00-10:00

1. **Production, Takt and Lead Time Variation: Production Planning and Tardiness Probabilities in Small-Lot Casting**  
Steinar Kristoffersen  
Møreforsking Molde AS, Norway

2. **Creating Value through Supplier Development: The Case of a Fish Feed Supplier to the Aquaculture Industry**  
Gabriele Hofinger Jünge  
Møreforsking Molde AS, Norway

3. **Collaborative Engineering: A Framework for Engineering-to-order Companies**  
Pavan Kumar Sriram, Erlend Alfnes, Steinar Kristoffersen  
Norwegian University of Science and Technology (NTNU), Trondheim, Norway; Møreforskning AS Molde, Norway

4. **IT-enabled Collaborative Case Management - Principles and Tools**  
Sebastian Huber, Matthias Lederer, Freimut Bodendorf  
Institute of Information Systems, University of Erlangen-Nuremberg, Germany

5. **Business Process Assignment and Execution in Mobile Environments**  
Tao Peng, Chi-Hung Chi, Annamaria Chiasera, Giampaolo Armellin, Marco Ronchetti, Cristina Matteotti, Cristhan Parra, Aleksey Oleksiy Kashytsa, Gabriele Bonadiman  
University of Trento, Italy; Centro Ricerche GPI, Trento, Italy; GPI, Trento, Italy; CSIRO, Hobart, Australia
Mobile Systems and Wireless Sensor Networks for Collaboration  
Wednesday, May 21 13:20-15:20  

1. Collaborative Sensing and Control in Large-Scale Transportation Systems  
   Tian He,  
   University of Minnesota – Twin Cities, Minnesota, USA  

2. Cross-Layer Medium Access and Data Collection in Wireless Sensor Networks  
   Mohamed Hefeida  
   University of Illinois at Chicago, Illinois, USA  

3. A Secure Wake-up Scheme for Low Power Wireless Sensor Nodes  
   Oliver Stecklina, Stephan Kornemann, Michael Methfessel  
   IHP Microelectronics GmbH, Frankfurt, Germany  

4. An Efficient Lossless Data Reduction Algorithm for Cluster Based Wireless Sensor Network  
   Syed Misbahuddin, Mahjabeen Tahir, Samia Aijaz Siddiqui  
   Bahria University - Karachi Campus and Sir Syed University of Engineering and Technology, Karachi, Pakistan  

   Simon Pettersen Nguyen  
   Ostfold University College, Halden, Norway  

Intelligent Agents and Multi-Agent Systems for Collaboration  
Wednesday, May 21 15:20-17:20  

1. Adopting Pedestrian Navigation Techniques for Multi-Robot Coordination  
   Stephen J. Guy  
   University of Minnesota - Twin Cities, Minnesota, USA  

2. Event-based Awareness Promotion for Distributed Collaborative Activities  
   Guoray Cai, Bo Yu  
   Pennsylvania State University, Pennsylvania, USA  

3. Social Implications of Agent-based Planning Support for Human Teams  
   Wenchao Jiang, Joel E. Fischer, Chris Greenhalgh, Tom Rodden, Sarvapali D. Ramchurn, Feng Wu, Nicholas R. Jennings  
   University of Nottingham, U.K.; University of Southampton, U.K.  

4. A Decentralized Behavioral Model for Collective Foraging Problem  
   Ouarda Zedadra, Nicolas Jouandeau, Hamid Seridi, Antonio Guerrieri, Giancarlo Fortino  
   LabSTIC Laboratory, 8 May 1945 University, Guelma, Algeria; Laboratoire d'Informatique Avancée de Saint-Denis (LIASD), Paris 8 University, Saint-Denis, France; DIMES - Università della Calabria, Italy  

Collaborative Knowledge Management and Discovery  
Wednesday, May 21 8:00-10:00  

1. An XMT-based Approach for Long-Term Preservation of Digital Videos based on the Extensible MPEG-4 Textual Format  
   Alexander Uherek, Sonja Maier, Uwe M. Borghoff  
   Universität der Bundeswehr München, Neubiberg, Germany  

2. Knowledge Discovery in Collaborative Design Projects  
   Xinghang Dai, Matta Nada, Ducellier Guillaume
3. **A Methodology for Building Log of Collaboration Processes**
Claudia Diamantini, Laura Genga, Domenico Potena, Giuseppa Ribighini
Università Politecnica delle Marche, Ancona, Italy

4. **Semantics-based Social Media for Collaborative Open Innovation**
Fabrizio Smith, Francesco Taglino
Institute for System Analysis and Computer Science (IASI) - CNR, Roma, Italy

5. **An Integrated System for Social Information Discovery**
Claudia Diamantini, Domenico Potena, Alessandro Sabelli, Samuele Scattolini
Università Politecnica delle Marche, Ancona, Italy; Mediamente Consulting s.r.l., Empoli, Italy

**Collaborative e-Learning, Crowdsourcing, and Education**
**Wednesday, May 21 13:20-15:20**

1. **Useful Views of Student Artifacts and Activities: Supporting Student Use of an Open-ended Exploratory Construction Tool in the Classroom**
Kristin K. Lamberty
University of Minnesota - Morris, Minnesota, USA

2. **Collaborative m-Learning Practice Using Educ-Mobile**
Susana Isabel Herrera, Cecilia Veronica Sanz
National University of Santiago del Estero, Santiago del Estero, Argentina; National University of La Plata, La Plata, Argentina

3. **Targeted Question Answering on Smartphones Utilizing App Based User Classification**
Yavuz Selim Yılmaz, Bahadır Ismail Aydın, Murat Demirbas
State University of New York - Buffalo, New York, USA

4. **How Quiz-based Tools Can Improve Students’ Engagement and Participation in the Classroom**
Delfina Malandrino, Ilaria Manno, Giuseppina Palmieri, Vittorio Scarano, Giovanni Filatrella
Università degli Studi di Salerno, Fisciano (SA), Italy; Università degli Studi del Sannio, Benevento, Italy

5. **An Architecture for Co-designing Participatory and Knowledge-intensive Serious Games: ARGILE**
Nour El Mawas
Laboratoire d’Informatique de l’Université du Maine (LIUM), Laval, France

**Peer-to-Peer Networks for Collaboration and Social Computing**
**Wednesday, May 21 15:20-17:20**

1. **Enhancing Collaborative Peer-to-Peer Systems using Resource Aggregation and Caching**
Anura P. Jayasumana
Colorado State University - Fort Collins, Colorado, USA

2. **Secure Distributed Data Structures for Peer-to-Peer-based Social Networks**
Jens Janiuk, Alexander Mäcker, Kalman Graff
University of Paderborn, Germany; University of Düsseldorf, Germany

3. **Exploiting Sleep-and-Wake Strategies in the Gnutella Network**
Salvatore Corigliano, Paolo Trunfio
DIMES, University of Calabria, Rende (CS), Italy

4. **Evaluation of Video Streaming Performance over Peer-to-Peer Network**
Shafquat Ali Memon, Syed Raheel Hassan, Nisar Ahmed Memon
WORK-IN-PROGRESS
Wednesday, May 21  8:00-10:00

1. Web 2.0 Within Organisations Bridging the Gap between KM Technology Centred and People Centred Approaches
   Fayez Alqahtani, Jason Watson, Helen Partridge
   King Saud University, Riyadh, Saudi Arabia

2. VDL-based Iconic Co-annotation in Crisis Management
   Xiaoyue Ma, Mohamed Sediri, Nada Matta, Jean-Pierre Cahier
   Xidian University, Xian, Shaanxi, China; Université de Technologie de Troyes, Troyes, France

3. Towards an Inclusive Virtual Dressing Room for Wheelchair-Bound Customers
   Anthony L. Brooks, Eva Petersson Brooks
   Aalborg University, Esbjerg, Denmark

4. Use of the Analogy Reasoning and Experience Feedback for Decision Support in Crisis Situation
   Mohamed Sediri, Nada Matta, Sophie Loriette, Alain Hugerot
   ICD/TechCICO - Université de Technologie de Troyes, France; Aube Emergency Department, Troyes, France

Second International Workshop on Collaboration Technologies and Systems in Healthcare and Biomedical Fields (CoHeB 2014)

1. Collaborating Across Telemedicine Specialties for Improved Cancer Care
   Elizabeth A. Krupinski (Invited)
   Department Medical Imaging, University of Arizona -Tucson, Arizona, USA

2. TBA
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3. A Medical Domain Collaborative Anomaly Detection Framework for Identifying Medical Identity Theft
   Apurva Mohan
   Integrated Security Technologies, Honeywell ACS Labs, Minnesota, USA

4. A Home-based Telerehabilitation Randomized Trial for Stroke Care: Effects on Falls Self-Efficacy and Satisfaction with Care
   Neale R. Chumbler, Xinli Li, Patricia Quigley, Miriam C. Morey, Dorian Rose, Patricia Griffiths, Jon Sanford, Helen Hoenig
   University of Georgia - Athens, Georgia, USA; US Department of Veterans Affairs National Surgery Office, Denver, Colorado, USA; James A. Haley VAMC (151R), HSR&D/RRD Center of Excellence: Maximizing Rehabilitation Outcomes, Tampa, Florida, USA; Durham VA Medical Center Older Americans Independence (Pepper) Center, Duke University School of Medicine, Durham, North Carolina, USA; College of Public Health and Health Professions, Gainesville, Florida, USA; Atlanta Dept of Veterans Affairs RR&D, Center for Visual and Neurocognitive Rehabilitation Birmingham/Atlanta GRECC & Emory University School of Medicine, Division of General Medicine & Geriatrics, Atlanta, Georgia, USA; Atlanta Dept. of Veterans Affairs RR&D, Center for Visual and Neurocognitive Rehabilitation Center for Assistive Technology, College of Architecture, Georgia Tech University, Atlanta, Georgia, USA; Physical Medicine & Rehabilitation Service, Durham VA Medical Center, Durham, North Carolina, USA

5. When Technology Alone is Not Enough: A Discussion of a Struggling Telepsychiatry Project and Lessons from Model Programs
6. **A Novel Personal Health Network for Patient-Centered Chemotherapy Care Coordination**
   Katherine K. Kim, Janice Bell, Sarah Reed, Jill G. Joseph, Richard Bold, Kimberlie L. Cerrone, Daniel Altobello, Joydip Homchowdhury
   University of California - Davis, California, USA; Tiatros Inc., California, USA

7. **A Similarity Measurement of Clinical Trials Using SNOMED - A Preliminary Study**
   Duo (Helen) Wei, Tiara Campbell
   The Richard Stockton College of New Jersey, Galloway, New Jersey, USA
   (Will be presented by Juan Shan)

8. **An Internet of Things Resource for Rehabilitation**
   Anthony Lewis Brooks, Eva Petersson Brooks
   Aalborg University, Esbjerg, Denmark
Thursday, May 22  10:20-12:00  &  13:40-15:00

1. Opportunities for Data-Driven Cloud-based Mobile Optimization
   William Myott, Thao Nguyen, Abhishek Chandra, George Karypis, Jon Weissman
   University of Minnesota-Twin Cities, Minnesota, USA

2. Feel Free to Cache: Towards an Open CDN Architecture for Cloud-based Content Distribution
   Zhi-Li Zhang
   University of Minnesota-Twin Cities, Minnesota, USA

3. Nebula: Distributed Edge Cloud for Data-Intensive Computing
   Mathew Ryden, Kwangsung Oh, Abhishek Chandra, Jon Weissman
   University of Minnesota-Twin Cities, Minnesota, USA

   Daniele Spiga, Enrico Fattibene, Matteo Manzali, Davide Salomoni, Valerio Venturi, Paolo Veronesi, Livio Fano, Andrea Valentini, Gian Mario Bilei, Hassen Riahi, Loriano Storch, Claudia Diamantini, Domenico Potena, Giuseppa Ribighini, Emanuele Storti, Damiano Falcioni, Daniele Fani, Barbara Re, Cinzia Amici, Serenella Carota, Francesco Cirillo, Maria Laura Maggiulli, Andrea Sergiacomi, Donatella Settimi
   CERN, Geneve, Switzerland; INFN CNAF, Bologna, Italy; Physics and Geology Department, University of Perugia, Perugia, Italy; INFN Perugia, Perugia, Italy; Department of Information Engineering, Marche Polytechnic University, Ancona, Italy; School of Science and Technology, University of Camerino, Camerino, Italy; Regione Marche, Ancona, Italy

5. Collaborative Marketplaces for eScience: A Medical Imaging Use Case
   Mengsong Zou, Javier Diaz-Montes, Ivan Rodero, Manish Parashar, Ioan Petri, Omer Rana, Xin Qi, David J. Foran
   Rutgers University, New Jersey, USA; Cardiff University, U.K.; Rutgers University - Robert Wood Johnson Medical School, New Jersey, USA; Rutgers Cancer Institute of New Jersey, USA

6. SE+KNN: A Quality of Service Assessment Method to Handle Multiple Attributes
   Hmood Al-Dossari, Jianhua Shao
   King Saud University, Riyadh, Saudi Arabia; Cardiff University, Cardiff, United Kingdom

7. End-to-End QoS Mapping and Aggregation for Selecting Cloud Services
   Raed Karim, Chen Ding, Ali Miri, Xumin Liu
   Ryerson University, Ontario, Canada; Rochester Institute of Technology, New York, USA

The Second International Workshop on Collaboration in Emergency Response and Disaster Management (ERDM 2014)
Thursday, May 22  10:20-12:00  &  13:40-14:35

1. Ontology based Efficient Teamwork Strategies for Web based Agents in Rescue and Relief Operations
   Asifa Altaf, Sarmad Sadik
   National University of Science and Technology, Pakistan

2. An Internet of Things Ontology for Earthquake Emergency Evaluation and Response
   Luca Spalazzi, Gilberto Taccari, Andrea Bernardini
   Università Politecnica delle Marche, Ancona, Italy

3. A Review on Ground Penetrating Radar Technology for the Detection of Buried or Trapped Victims
   Lorenzo Crocco, Vincenzo Ferrara
   IREA - Institute for Electromagnetic Sensing of the Environment and CNR, Naples, Italy; DIET, Sapienza University of Rome, Italy

4. Satellite Assisted Underwater Radio Communication for Emergency Services
   M. Umar Khan, Andres Marin Lopez
   CAST, COMSATS Institute of IT, Pakistan; Universidad Carlos III, Madrid, Spain
5. Modelling The Communication between Emergency Actors in Crisis Management
   Amina Saoutal, Jean-Pierre Cahier, Nada Matta
   Université de Technologie de Troyes, Troyes, France

6. A Software Framework for Patient Data Handling in Emergencies and Disasters
   Robert Olson, Junaid A. Zubairi, Anatoliy Biliciler
   State University of New York - Fredonia, New York, USA

Virtual Environments and Collaboration Applications
Thursday, May 22 14:35-15:50

1. Understanding Data through Collaboration: Developing Collaboration Support Tools for Expert Artists and Scientists
   Daniel Keefe
   University of Minnesota – Twin Cities, Minnesota, USA

2. Scientific Collaboration in Virtual Environments: The Western Consortium Watershed Analysis, Visualization, and Exploration (WC-WAVE) Project
   Sergiu Dascalu
   University of Nevada – Reno, Nevada, USA

3. Multi-Objective Optimization of Dead-Reckoning Error Thresholds for Virtual Environments
   Jeremy R. Millar, Douglas D. Hodson, Gary B. Lamont, Gilbert L. Peterson
   Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

DOCTORAL DISSERTATION COLLOQUIUM
Thursday, May 22 15:00-15:50

1. A Federated Cloud of Things for Emergency Management
   Gilberto Taccari
   Università Politecnica delle Marche, Ancona, Italy
   Dissertation Adviser: Luca Spalazzi
   Discussant and Respondent: TBA

2. TBA
   TBA
   Dissertation Adviser: TBA
   Discussant and Respondent: TBA