

# Technical Program for the 11th Annual IEEE International Symposium On Network Computing and Applications (IEEE NCA12) – Preliminary Version 3

**Thursday August 23rd, 2012**

**7:30 – 8:00 Serrano Foyer Registration and Breakfast**

**8:00- 8:15 Serrano B/C Opening Remarks**

**Thursday Morning Sessions**

**8:15 -9:45 Serrano B/C Overlay Networks/Peer-to-Peer Systems Session Chair: TBD**

Greening the Internet: Energy-optimal File Distribution

*Kshitiz Verma, Gianluca Rizzo, Antonio Fernandez Anta, Ruben Cuevas Rumin and Arturo Azcorra,*

WebCloud: Recruiting social network users to assist in content distribution

*Fangfei Zhou, Liang Zhang, Eric Franco, Alan Mislove, Richard Revis and Ravi Sundaram*

Dynamic Semantic Data Replication for K-Random Search in Peer-to-Peer Networks

*Xiaoqi Cao and Matthias Klusch*

**9:45 -10:00 Serrano Foyer Break**

**10:00 -10:30 Serrano B/C Best Student Paper**

**10:30-10:45 Serrano Foyer Break**

**10:45-11:45 Serrano B/C Theoretical Aspects of Network Computing Session Chair: TBD**

Information Divergence Estimation over Data Streams

*Emmanuelle Anceaume and Yann Busnel*

A Distributed Merge-and-Split Mechanism for Dynamic Virtual Organization Formation in Grid

*Lena Mashayekhy and Daniel Grosu*

**12:00 -13:30 Lunch**

**Thursday Afternoon Sessions**

**13:30 -15:30 Serrano B/C Dependable Network Computing Session Chair: TBD**

Chasing the Weakest Failure Detector for k-Set Agreement in Message-passing Systems  
*Achour Mostéfaoui, Michel Raynal and Julien Stainer*

Towards Byzantine Resilient Directories  
*Ali Shoker and Jean-Paul Bahsoun*

A technique for self-optimizing scalable and dependable server clusters under QoS constraints  
*Ramón Medrano Llamas, Daniel F. García and Joaquín Entrialgo*

**15:00 -15:10 Break**

Application of Regenerating Codes for Fault Tolerance in Distributed Storage Systems  
*Kathrin Peter and Peter Sobe*

**15:30 -16:30 Serrano B/C Performance Modeling/Quality of Services (QoS) Issues Part 1**

**Session Chair: TBD**

Internet Distance Prediction Using Node-Pair Geography  
*Ankur Jain and Joseph Pasquale*

Modelling Web-server Flash Events  
*Sajal Bhatia, George Mohay, Desmond Schmidt and Alan Tickle*

**16:30 -16:45 Serrano Foyer Break**

**16:45 -17:45 Serrano B/C Computation Intensive Applications and Programming Environments Session Chair: TBD**

A Pipelining Approach to Informed Prefetching in Distributed Multi-Level Storage Systems  
*Maen Al Assaf, Xiao Qin, Xunfei Jiang, Ji Zhang and Mohammed Alghamdi*

Two-Dimensional Dynamic Loop Scheduling Schemes for Computer Clusters  
*Anthony Chronopoulos, Satish Penmatsa, Naveen Jayakumar and Eric Ogharandukun*

**Friday August 24th, 2012**

**8:00 – 8:30 Serrano Foyer Registration and Breakfast**

**8:30 – 9:00 Serrano B/C Best Paper - TBA**

**9:00-9:15 Serrano Foyer Break**

**9:15-10:45 Serrano B/C Routing Mechanisms Session Chair: TBD**

Energy Efficient Routing based on Connected Dominating Sets  
*Yacoub massad, Jesus villadangos and Vicent cholvi*

Delay-Aware Query Routing Tree for Wireless Sensor Networks  
*Shaila Pervin, Joarder Kamruzzaman and Gour Karmakar*

Phoenix: A Protocol for Seamless Client Mobility in Publish/Subscribe  
*Zigor Salvador, Mikel Larrea and Alberto Lafuente*

**10:45-11:00 Serrano Foyer Break**

**12:00 -13:30 Serrano A Lunch**

**Afternoon Parallel Session I**

**13:30 -15:00 Serrano B Mobile Ad-Hoc Networks (MANET) Session Chair: TBD**

Spotcast – A Communication Abstraction for Proximity-Based Mobile Applications  
*Behnaz Bostanipour, Benoit Garbinato and Adrian Holzer*

Interest-centric Mobile Ad Hoc Networks  
*Renato C. Dutra, Heberte F. Moraes and Claudio L. Amorim*

A performance evaluation of HRAN: A hybrid routing protocol using bloom filters for wireless mobile ad hoc networks  
*João Trindade and Teresa Vazão*

**15:00-15:15 Serrano Foyer Break**

**15:15 -16:15 Serrano B Performance Modeling/Quality of Services (QoS) Issues Part 2 Session Chair: TBD**

The impact of user's dynamic behavior on web performance  
*Raúl Peña-Ortiz, José Antonio Gil, Julio Sahuquillo and Ana Pont*

A Reservation Scheme for QoS Provision within Mobile Multihop Relay Networks  
*Neila Krichene and Noureddine Boudriga*

## Afternoon Parallel Session II

**13:30 – 15:00 Serrano C Cloud Computing Part 1 Session Chair: TBD**

Performance Aspects of Data Transfer in a New Networked I/O Architecture  
*Cynthia Taylor and Joe Pasquale*

A Density-based Anomaly Detection Method for MapReduce  
*Kai Wang, Ying Wang and Bo Yin*

A Novel Associative Model of Data: Toward a Distributed Large-Scale Data Processing Scheme for Future Computer Clouds  
*Amir Hossein Basirat and Asad I. Khan*

**15:00 -15:15 Serrano Foyer Break**

**15:15-16:45 Serrano C Cloud Computing Part 2 Session Chair: TBD**

Deploying Virtual Clusters through P2P-based Content Distribution  
*Ian Chang-Yen and Dr. Nian-Feng Tzeng*

Task and Server Assignment for Reduction of Energy Consumption in Datacenters  
*Ning Liu, Ziqian Dong and Roberto Rojas-Cessa*

An Online Power Metering Model for Cloud Environment  
*Yanfei Li, Ying Wang, Bo Yin and Lu Guan*

**16:45-17:00 Serrano Foyer Break-End of Parallel Session 2**

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**17:00 - 17:45 Serrano B/C Keynote Address: *Assuring the Trustworthiness of the Smarter Electric Grid*, Professor William H. Sanders University of Illinois, Director of Coordinated Sciences Lab**

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**18:00-19:00 Serrano Foyer Reception (Cocktails)**

**19:00-21:00 Serrano C Banquet**

## Saturday August 25<sup>th</sup>, 2012

**8:00 – 8:30 Serrano Foyer Breakfast**

### Parallel Session I

**8:30 – 9:30 Serrano B Self-configuring, healing, optimizing, protecting concepts**

**Session Chair: TBD**

Anomaly Detection Techniques for Web-based Applications: An Experimental Study  
*João Paulo Magalhães and Luis Moura Silva*

Machine Learning Methodology for Enhancing Automated Process in IT incident Management  
*Haochen Li and Zhiqiang Zhan*

**9:30-9:45 Serrano Foyer Break**

**9:45– 11:15 Serrano B Networking Protocols, Verification and Validation Session Chair: TBD**

Protocol proof checking simplified with SMT  
*Mark Tuttle and Amit Goel,*

ASAP: an Aggressive SpeculAtive Protocol for Actively Replicated Transactional Systems  
*Roberto Palmieri, Francesco Quaglia and Paolo Romano*

SLBN: A Scalable Max-min Fair Algorithm for Rate-Based Explicit Congestion Control  
*Iberto Mozo, Jose Luis López-Presa and Antonio Fernández Anta*

**12:00 -13:30 Lunch**

**13:30-14:30 Serrano B System Area Networks, Scalable Servers Session Chair: TBD**

A New Family of Hybrid Topologies for Large-Scale Interconnection Networks  
*Roberto Peñaranda, Crispin Gomez, Maria E. Gomez, Pedro Lopez and Jose Duato*

Infrastructure Provisioning for Scalable Content-based Routing: Framework and Analysis  
*Raphaël Barazzutti, Pascal Felber, Hugues Mercier, Emanuel Onica, Jean-François Pineau, Etienne Rivière and Christoph Fetzer*

**14:30 -14:45 Serrano Foyer Break End of Parallel Session I**

## Parallel Session II

**8:30 – 10:45 Serrano C      Sensor Networks      Session Chair: TBD**

LooCI: the Loosely-coupled Component Infrastructure  
*Danny Hughes, Klaas Thoelen, Jef Maerien, Nelson Matthys, Wouter Horré, Javier Del Cid, Christophe Huygens, Sam Michiels and Wouter Joosen*

Local Algorithms for Robust Mission Realization in Large-Scale Disconnected Networks  
*Michel Charpentier, Radim Bartos and Ying Li*

**9:30- 9:40 Serrano Foyer      Break**

Cluster-Based Fast Broadcast in Duty-Cycled Wireless Sensor Networks  
*Mustapha Khiati and Djamel Djenouri*

A Localized Algorithm for the Maximum Lifetime Broadcast Problem with Asymmetric Edge Costs  
*Bruno Nunes, Frederico Barboza and Flavio Assis*

**11:00 –12:00 Serrano C      Security Concepts      Session Chair: TBD**

A Multi-Fence Countermeasure Based Inter-domain Source Address Validation Method  
*Jie Li and Wei Zhang*

DiFiSec: An Adaptable Multi-level Security Framework for Event-driven Communication in Wireless Sensor Networks  
*Syed Rehan Afzal*

**12:00 -13:30      Lunch**

**13:30-14:30 Serrano C      Novel Concepts      Session Chair: TBD**

Sensing and Actuation as a Service: a new development for Clouds  
*Salvatore distefano, Giovanni Merlino and Antonio Puliafito*

Proximity Detection and Message Exchange in WLANs  
*Sascha Schnauffer, Johannes Kiess, Hendrik Lemelson, Stephan Kopf, Sebastian Geiger and Wolfgang Effelsberg*

**14:30-14:45 Serrano Foyer Break      End of Parallel Session II**

**15:00 Serrano B/C      Closing Remarks for NCA12**

**Many thanks to all the volunteers who made NCA12 a success.**

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