'08 SERENE
INTERNATIONAL WORKSHOP
on Software Engineering for Resilient Systems

RISE/EFTS Joint International Workshop on Software Engineering for Resilient Systems

November 17-19, 2008

Newcastle upon Tyne (UK)

Workshop Program

PROGRAM CHAIRS
Nicolas Guelfi
Henry Muccini
Patrizio Pelliccione
Alexander Romanovsky

November 17, 2008

Welcome and introduction by the chairs
➔ 13:30 – 13:45 (15 min)

Nicolas Guelfi (University of Luxembourg, LUXEMBOURG)

Henry Muccini (University of L'Aquila, ITALY)

Patrizio Pelliccione (University of L'Aquila, ITALY)

Alexander Romanovsky (Newcastle University, UK)

Keynote Talk 1 - chair: Alexander Romanovsky
➔ 13:45 – 15:00 (1 hour + 15 min)
"System Complexity, Dependability and Failures"
Brian Randell

➔ 15:00 – 15:30 (30 min)
Coffee break

Technical session: Architectures and modelling – chair: Paris Avgeriou

➔ 15:30 – 16:00 (30 min)
"A Resilient Architecture for DHT-based Distributed Collaborative Environments"
Simone Cirani, Natalya Fedotova, Luca Veltri

➔ 16:00 – 16:30 (30 min)
"Incorporating Fault Tolerance Tactics in Software Architecture Patterns"
Neil Harrison, Paris Avgeriou

➔ 16:30 – 17:00 (30 min)
"Addressing Degraded Service Outcomes and Exceptional Modes of Operation in Behavioural Models"
Sadaf Mustafiz, Jörg Kienzle, Andrey Berlizev

Discussion
➔ 17:00 – 17:30 (30 min)

Day-1 Close

November 18, 2008

The SERENE ERCIM working group Report - chair: Nicolas Guelfi
➔ 9:00 – 9:15 (15 min)

Keynote Talk 2 - chair: Henry Muccini
➔ 9:15 – 10:30 (1 hour + 15 min)
"Challenges and Results in Component Quality Certification"
Ralf Reussner

➔ 10:30 – 11:00 (30 min)
Coffee break

Technical session: Mobility - chair: Giovanna di Marzo

➔ 11:00 – 11:30 (30 min)

"An Integrated Framework for the Dependability Evaluation of Distributed Mobile Applications"
Máté Kovács, Paolo Lollini, István Majzik, Andrea Bondavalli

➔ 11:30 – 12:00 (30 min)
"Formal development of cooperative exception handling for mobile agent systems"
Linas Laibinis, Elena Troubitsyna, Alexei Iliasov, Alexander Romanovsky

Discussion
➔ 12:00 – 12:30 (30 min)

➔ 12:30 – 14:00
Lunch

Experience/Industry session – chair: Patrizio Pelliccione

➔ 14:00 – 14:30 (30 min)
"The Threat of Uncertainty in Service-Oriented Architecture"
Anatoliy Gorbenko, Vyacheslav Kharchenko, Olga Tarasyuk, Yuhui Chen, Alexander Romanovsky

➔ 14:30 – 15:00 (30 min)
"Experiences in Engineering Active Replication into a Traditional Three-tiered Client-server System"
Gabriel Zenarosa, Soumya Simanta

➔ 15:00 – 15:30 (30 min)
"Supporting Resilience in Air Traffic Management"
Massimo Felici, Valentino Meduri, Alessandra Tedeschi, Carlo Riccucci

➔ 15:30 – 16:00 (30 min)
Coffee break

PhD Forum papers: session 1 – chair: Henry Muccini

➔ 16:00 – 16:30 (30 min)
"Development of a Formalism for Modelling and Analysis of Dynamic Reconfiguration of Dependable Real-Time Systems: A Technical Diary"
Anirban Bhattacharyya, John Fitzgerald

➔ 16:30 – 17:00 (30 min)
"RPL: A Policy Language For Dynamic Reconfiguration"
Richard Payne

Discussion
➔ 17:00 – 17:30 (30 min)

Serene Social Program
➔ 19:30
SERENE dinner at the Grainger Rooms
The Grainger Rooms
7 Higham Place
Newcastle-Upon-Tyne
NE1 8AF

Day-2 Close

November 19, 2008

Technical session: Construction of and reasoning about resilient systems - chair: Alexander Romanovsky

➔ 9:00 – 9:30 (30 min)
"An Evolving Hierarchical & Modular Approach to Resilient Software"
Fernando Barros

➔ 9:30 – 10:00 (30 min)
"Towards Reasoning about Teleo-Reactive Programs for Robust Real-Time Systems"
Ian Hayes

Discussion
➔ **10:00 – 10:30 (30 min)**
➔ 10:30 – 11:00 (30 min)
Coffee break

PhD Forum papers: session 2 - chair: Nicolas Guelfi

➔ 11:00 – 11:30 (30 min)
"A Reconfigurable Component Model Using Reflection"
James Hawthorne, Richard Anthony

➔ 11:30 – 12:00 (30 min)
"Resilience through Dynamic Reconfiguration in Agent Systems"
Ilya Lopatkin

➔ 12:00 – 12:30 (30 min)
"Extended Exceptions for Contingencies"
Thorsten van Ellen, Wilhelm Hasselbring

Project papers - chair: John Fitzgerald

➔ 12:30 – 12:50 (20 min)
"DEPLOY: Industrial Deployment of Advanced System Engineering Methods for High Productivity and Dependability"
Alexander Romanovsky

➔ 12:50 – 13:10 (20 min)
"Services for Fault-Tolerant Conflict Resolution in Air Traffic Management"
Henrique Moniz, Paolo Masci, Alessandra Tedeschi

Discussion
➔ **13:10 – 13:30 (20 min)**

Day-3 Close

Wrap up