The 18th CREST Open Workshop
Managing and Optimising Multiplicity Computing
22nd – 23rd March 2012
Engineering Front Executive Suite, Roberts Building

Programme

++++++++++22 March 2012 – DAY 1++++++++++

10:00  Arrival, Coffee and Pastries

10:30  Welcome and Introductions
Mark Harman, CREST Centre, SSE Group, Department of Computer Science UCL, UK

Alexander Wolf, Department of Computing, Imperial College London, UK

11:45  Discussion: establishing terms and goals.

12.00  From boolean to quantitative theories of software systems
Thomas Henzinger, Institute of Science and Technology (IST), Austria

12:30  Building a Multiscale Data Processing Appliance
Gustavo Alonso, ETH, Zurich, Switzerland

13:00  Sandwich lunch at the venue

14:00  Extreme Specialization
Steven Hand, University of Cambridge Computer Laboratory, UK

14:30  Actor Programming Languages for Scalable Parallel and Distributed Systems
Gul Agha, Department of Computer Science, University of Illinois, USA

15.00  Refreshments

15:30  Working Title: Genetic Improvement as a Means of Achieving Diversity
Bill Langdon, CREST Centre, SSE Group, Department of Computer Science UCL, UK

16:00  Automatic Workarounds: Exploiting the Intrinsic Redundancy of Software to Improve Reliability
Antonio Carzaniga, Faculty of Informatics, University of Lugano, Switzerland

16.30  Safe Software Updates via Multi-Version Execution
Cristian Cadar, Department of Computing, Imperial College London, UK

17.00  Discussion: SBSE and testing for Multiplicity and Diversity
Mark Harman, CREST Centre, SSE Group, Department of Computer Science UCL, UK

18.00  Wrap up

18.15  Light Dinner at the venue
23 March 2012 – Day 2

9:30  Arrival, Coffee and Pastries

10:00  Perspectives on Multiplicity Computing
       Joe Sventek, Department of Computing Science, University of Glasgow, UK

10:30  Multicore Software Engineering: Perspectives For The Next Decade
       Victor Pankratius, Karlsruhe Institute of Technology, Germany

11:00  Bottom-Up Cloud Optimization using Control Theory
       Jeremy Singer, Computing Sciences, University of Glasgow, UK

11:30  Refreshments

12:00  Working Title: SBSE on Multiple cores
       Enrique Alba, Department of Computer Science, University of Málaga, Spain

12:30  Evolutionary Algorithms facing large-scale computing
       Marc Schoenauer, INRIA Saclay - Île-de-France, Université Paris Sud, France

13:00  Sandwich lunch at the venue

14:00  A search based approach for security testing
       Mariano Ceccato, FBK (Fondazione Bruno Kessler), Italy

14:30  Searching for Diverse Software Engineering Solutions
       Robert Feldt, Department of Computer Science and Engineering, Chalmers University of Technology, Sweden

15:00  Multiple Views of Multiplicity Computing: Opportunities Viewed through a Cyber-Security Lens
       Richard Schantz, The Distributed Systems Technology Group, BBN Technologies, USA

15.30  Refreshments

16:00  Discussion: Next steps for Multiplicity Computing
       Alexander Wolf, Department of Computing, Imperial College London, UK

16.45  Wrap up

17.15  Close