

**Joint TACLe – EACO Workshop on
Analysis Techniques for Energy-Aware COmputing (EACO)**

Wednesday, 10th September 2014, 11:30 - 18:00

Thursday, 11th September 2014, 9:00 - 14:00

Room G.01 in The Systems Centre, Ground Floor, Merchant Venturers Building,
Woodland Road, Bristol BS8 1UB

Purpose of the EACO workshop series: To bring together researchers and engineers with interests in energy-aware computing for discussions to identify intellectual challenges that can be developed into collaborative research projects. We strive to go significantly beyond the state of the art.

Special focus of this workshop is on analysis techniques for energy efficient software and systems with the aim to foster knowledge exchange between the TACLe and the EACO communities, and to establish new research collaborations to join forces in advancing the state of the art in energy-aware computing. The programme contains a series of presentations from TACLe members, from members of the EACO community, and also invited presentations from guest speakers.

Please note that places are limited and refreshments/lunch can only be provided for registered attendees. **Registration will close at noon on Monday, 8 September 2014.** Please register asap. Thank you.

Preliminary Agenda (subject to change, all times are approximate)

Wednesday, 10th September 2014

11:30 Registration

12:00 Welcome, Introductions, Aim of this EACO workshop: Kerstin Eder and David May, University of Bristol, Kevin Hammond, University of St Andrews

~12:30 Lunch including Networking

13:30 “Energy Efficient Software”, Lee Smith, ARM Fellow

14:15 “A high-level model of embedded flash energy consumption”, James Pallister, University of Bristol

14:35 “Power & energy modelling of multi-core processors for system-level design space exploration”, Oscar Palomar, BSC

~15:00 Discussion followed by a short Coffee Break

15:30 “Timing Analysis of Parallel Software Using Abstract Execution”, Björn Lisper, Mälardalen University

16:15 “Using Static Program Analysis Techniques for Energy Analysis”, Simon Wegener, AbsInt Angewandte Informatik GmbH

~16:45 Discussion and Conclusion from Day 1 followed by a Drinks Reception and Networking

18:00 END of formal part Day 1

Thursday, 11 September 2014

9:00 Registration

9:15 Welcome

9:20 "Static Analysis of Energy Consumption", Manuel Hermenegildo, IMDEA

9:40 "Hardware parametric static energy analysis", Marko van Eekelen, University of Nijmegen

10:00 "Energy Modelling and Static Analysis for Energy Transparency", Kyriakos Georgiou, Steve Kerrison and Jeremy Morse, University of Bristol

~10:40 Discussion followed by a short Coffee Break

11:20 "Coordination for Energy", Clemens Grelck, Universiteit van Amsterdam

11:40 "Compositional resource analysis in Hume using automatic amortisation", Kevin Hammond, University of St Andrews

Discussion

12:10 "Machine Guided Energy Efficient Compilation", Simon Hollis, University of Bristol

12:25 "Declarative Machine Learning for Energy Efficient Compilation", Kerstin Eder, University of Bristol

~12:30 Discussion followed by Lunch including Networking

14:00 END of formal part

14:15 Room G.01 remains available for informal discussions and brainstorming

17:00 CLOSE, Room G.01 will be locked