CHREC 2009 Annual Workshop
Orlando, FL, December 3-4, 2009

Meeting Agenda

CHREC
NSF Center for High-Performance
Reconfigurable Computing

Thursday December 3rd

Time	Event
07:00-08:00	Registration and Breakfast – *please come early in this period for LM badging*

Session I: General Topics

08:00-08:05	Welcome and Greetings
08:05-08:15	NSF Update
08:15-08:30	State of the Center, Review of LIFE Form Process (for 2010 proposals)

Session II: 2009 Project Reviews – Part A (5-min theme intros, 20-min presentations)

08:30-09:15   Theme #1: Partial Reconfiguration (chair: Tarek El-Ghazawi)
- G7-09: Virtualizing FPGA Resources for HPRCs
- F4-09: Virtual Architecture and Design Automation for Partial Reconfiguration

09:15-10:40   Theme #2: Productivity Tools (chair: Herman Lam)
- F1-09: System-Level Formulation and Design
- F2-09: Translation and Execution Productivity
- B1-09: Reuse Tools for RC Design
- G8-09: Unified Parallel Programming of Tilera using UPC

10:40-11:00   **Break**

11:00-12:05   Theme #3: Architectures (chair: Peter Athanas)
- V1-09: Characterizing and Optimizing Emerging Devices
- V3-09: An API for Autonomous Adaptive Systems
- F5-09: RC Device Architecture Exploration

12:05-13:05   **Lunch**

Session III: 2009 Project Reviews – Part B (5-min theme intro, 20-min presentations)

13:05-14:10   Theme #4: Fault Tolerance (chair: Mike Wirthlin)
- B5a-09: Reliability Techniques for DSP/Comm Systems
- B5b-09: Reliable Architectures for Reconfigurable Computing
- F6-09: Reconfigurable and Hybrid Fault Tolerance

<u>**Session IV: 2010 Project Proposals (5-min theme intros, 10-min presentations)**</u>

14:10-15:05 Theme #1: Architecture (chair: Ann Gordon-Ross)
- F4-10: PR Architecture and Design Toolset for Embedded and Aerospace Systems
- G7-10: Hardware Virtualization: System-level support for HPRCs
- F5-10: Device/Application Mappings – Measurement, Performance, and Prediction
- V1-10: On the Performance, Programmability, and Power of Accelerators
- F2-10: Hardware Virtualization Layer for Ubiquitous RC

15:05-15:25 ***Break***

15:25-16:10 Theme #2: Productivity (chair: Greg Stitt)
- F1-10: Comprehensive Framework for Application Development Productivity
- B1-10: Rapid RC Development Techniques
- G8-10: PGAS Optimizations for Many-core Architectures
- V3-10: A Toolkit for Bitstream Patching

16:10-16:45 Theme #3: Fault Tolerance (chair: Brent Nelson)
- B5-10: Reliability Techniques for RC Systems
- F6-10: Adaptively Fault-Tolerant Reconfigurable Architectures
- B6-10: Reliable Architectures for Reconfigurable Computing

16:45 ***Break for Dinner***

<u>**Session V: Workshop Dinner & Poster Session**</u>

19:00-21:00 Workshop Dinner & Poster Session @ SeaWorld (see map & poster list for details)

Friday December 4th

Time	Event
07:00-08:00	Registration and Breakfast – *please come early in this period for LM badging*

<u>**Session VI: Feedback Review & IAB Forum (closed to students)**</u>

08:00-09:30 Review of LIFE Form Highlights on 2010 Project Proposals

09:30-09:45 Collect and Tally Project Ballots from IAB Members

09:45-10:00 ***Break***

10:00-11:00 IAB Meeting (project vote review, policy discussion, 2010 officer election, etc.)

Session VI Alternate – Student Forum: Students from all sites will meet together @ hotel, Room Crystal E. Activities for this session will be organized by Professors Nelson and Athanas. Students should return to Lockheed-Martin in plenty of time to rejoin the workshop at 11am for Session VII.

<u>**Session VII: Supplemental Reports & Conclusions**</u>

11:00-11:45 New-Member Intros, ROI Presentations, Supplementary Updates

11:45-12:00 Wrap-up and Concluding Remarks

12:00-13:00 ***Box Lunch***

<u>**Session VIII: Optional Hands-on Tools Demos (1-3pm @ Workshop Hotel, Room Crystal E)**</u>

Except where noted otherwise, all events held in Lockheed-Martin R&D Building, 1st Floor Conference Center.