ESTIMedia 2006 – Final Program
Thursday, October 26

(8h30 – 8h40) Opening & Welcome

(8h40 – 9h30) Special Session A: Keynote talk “Real-time processing on configurable multimedia systems” by Kees Vissers, Xilinx Research, USA

(9h30 - 10h10) Regular Session 1: Algorithm Adaptation for Efficient Implementation
Session Chair: Heiko Falk

- Hardware/Software Partitioned Implementation of Real-time Object-oriented Camera for Arbitrary-shape
  Jisu Kim, Hyuk-Jae Lee, Tae-Ho Lee, Myungje Cho, and Jae-Beom Lee

- A Low Complexity MPEG Video Decoder with Arbitrary Downscaling Capability
  Shu Shi, Feng Liu, Xu Cheng

(10h10 – 10h40) Coffee break and poster session 1

(10h40 - 11h40) Regular Session 2: Design Methodology for Multimedia Architectures
Session Chair: Tomas Henriksson

- An Estimation Methodology for Designing Instruction Cache Memory of Embedded Systems
  Nikolaos Kroupis, Dimitrios Soudris, Antonios Thanailakis

- A Mixed-level Co-simulation Technique for System-level Design Space Exploration
  Mark Thompson, Andy D. Pimentel, Simon Polstra and Cagkan Erbas

- Resource Manager for Non-preemptive Heterogeneous Multiprocessor System-on-chip
  Akash Kumar, Bart Mesman, Bart Theelen, Henk Corporaal and Yajun Ha

(11h40 - 12h10) Poster session 2

(12h10 – 13h40) Lunch

(13h40 - 15h00) Regular Session 3: Power Optimization and Energy Characterization
Session Chair: Petru Eles

- High-Level Power Management of Audio Power Amplifiers for Portable Multimedia Applications
  Kyungsoo Lee, Youngjin Cho and Naehyuck Chang

- Annotation Based Multimedia Streaming Over Wireless Networks
  Radu Cornea, Alex Nicolau, Nikil Dutt

- A Low-Power Implementation of 3D Graphics System for Embedded Mobile Systems
  Chanmin Park, Hyunhee Kim, Jihong Kim
An Energy Characterization Framework for Software-Based Embedded Systems
Lee Donghoon, Tohru Ishihara, Masanori Muroyama, Hiroto Yasuura, Farzan Fallah

(15h00 – 15h30) Coffee break and poster session 3

(15h30 – 16h20) Special Session B: Keynote talk “Recent developments in video compression standards and their impact on implementation complexity: From scalable to multi-view video coding” by Iole Moccagatta, IMEC, Belgium

(16h20 - 17h20) Regular Session 4: Multimedia Architectures
Session Chair: Nikil Dutt

Locality management using multiple SPMs on the Multi-Level Computing Architecture
Ahmed M. Abdelkhalek and Tarek S. Abdelrahman

A Hardware/Software Co-reconfigurable Multimedia Architecture
Yong-Kyu Jung

Neighbors-on-Path: A New Selection Strategy for On-Chip Networks
Vincenzo Catania, Giuseppe Ascia, Maurizio Palesi, Davide Patti

(17h20 – 18h00) Poster session 4

Friday, October 27

(8h30 - 9h10) Regular Session 5: Design Case Studies
Session Chair: Yong-Kyu Jung

HW/SW Co-Design and Implementation of Multi-Standard Video Decoding
Liu Feng, Guo Rui, Shi Shu, Cheng Xu

FPGA accelerator for real-time skin segmentation
Bart de Ruijsscher, Georgi Gaydadjiev, Jeroen Lichtenauer, Emile Hendriks

(9h10 - 9h50) Regular Session 6: Hardware and Interface Synthesis
Session Chair: Andy Pimentel

Hardware Synthesis for Multimedia Applications
S. Fischaber, J. McAllister, R. Woods, E. Malins Muir

TTL Hardware Interface: A High-Level Interface for Streaming Multiprocessor Architectures
Tomas Henriksson and Pieter van der Wolf
(9h50 – 10h30) Coffee break and poster session 5

(10h30 – 11h50) Regular Session 7: Embedded Software Techniques
Session Chair: Naehyuck Chang

Loop Nest Splitting for WCET-Optimization and Predictability Improvement
Heiko Falk, Martin Schwarzer

Design of a WCET-Aware C Compiler
Heiko Falk, Paul Lokuciejewski, Henrik Theiling

A Communication Interface for Multiprocessor Signal Processing Systems
Sankalita Saha, Shuvra S. Bhattacharyya and Wayne Wolf

Use of a Bit-true Data Flow Analysis for Processor-Specific Source Code Optimization
Heiko Falk, Jens Wagner, Andre Schaefer

(11h50 - 12h30) Poster session 6 and Closing.