

ICME 2009 Technical Program

Affiliated Workshops

Monday, June 29, 2009

Workshop on Advances in Multimedia Computing Technologies (8:40 - 17:00)

(Hosted by ACM MM'09 TPC)

Tuesday, June 30, 2009

Workshop on Emerging Technologies on Multimedia Communications and Networking (13:00 - 17:00)

Workshop Co-Chairs: Dr. Bin Wei, AT&T Research, USA

Prof. Zhu Li, Hong Kong Polytechnic University

(Hosted by IEEE Communications Society Multimedia Communication Technical Committee)

Session I: Beyond P2P Content Sharing (13:00 – 15:00)

L I-1: 1899: Peer-to-peer Video on Demand: Challenges and Solutions

Vijay Pai, Purdue University

L I-2: 1871: Low-Delay Mesh for Peer-to-Peer Streaming

Gary Chan, HKUST

L I-3: 1951: Challenges and Opportunities in Supporting Video Streaming over Infrastructure Wireless Mesh Networks

Wenjun Zeng, Univ. of Missouri

Session II: Content Engagement (15:20 – 17:00)

L II-1: 1954: The Content-Pipe Divide

Mung Chiang, Princeton University

L II-2: 1963: Overview of FTV (Free-viewpoint Television)

Masayuki Tanimoto, Nagoya University

L II-3: 1898: An interactive video streaming architecture for H.264/AVC compliant players

Etienne Böhmcke, Catholic University of Louvain

Wednesday, July 1, 2009

Workshop on Emerging Multimedia Circuits and Systems Technologies (9:50 - 17:30)

Workshop Co-Chairs: Chang Wen Chen, SUNY at Buffalo, USA

Oscar Au, HKUST, Hong Kong, China

(Co-Hosted by)

10:00 – 10:40

Workshop Keynote: Multimodal Signal Fusion

Ming-Ting Sun, University of Washington, USA

10:40 – 12:00

Session I

1988: Research on Light Field Camera and Music Emotion Recognition, Homer Chen, National Taiwan University Taiwan

1975: Toward Natural and Efficient Human Computer Interaction, Ling Guan, Ryerson University, Canada

1977: Multi-media Compliance: A practical paradigm for managing business integrity, Sharath Pankanti, IBM T J Watson Research, USA

2002: Video face recognition with graph-based semi-supervised learning, Pascal Frossard, EPFL, Switzerland

2003: An Overview of Fast Pedestrian Detection: Feature Selection and Cascade Framework of Boosted Features, Jian Zhang, NICTA, Australia

12:00 – 13:00 Lunch Break

13:00 – 15:00 Session II

1946: Understanding Benford's Law and Its Vulnerability in Image Forensics, Jay Kuo, University of Southern California, USA

1950: Can I Play the Movie I (or You) Bought? Hongxia Jin, IBM Almaden Research, USA

1947: Audio-visual Privacy Protection for Video Conference, Sam Cheung, University of Kentucky, USA

1965: Subpixel-based Image Downsampling-some Analysis and Observation, Oscar Au HKUST, Hong Kong

1949: Coarse-Grained Reconfigurable Image Stream Processor Architecture for Embedded Image/Video Processing and Analysis, Shao-Yi Chien, National Taiwan University Taiwan

1986: Integrated camera and sensor system design for search, rescue, and environmental tracking, Zhihai He, University of Missouri-Columbia, USA

15:00 – 15:20 Tea Break

15:20 – 17:00 Session III

Video Compression: The Next Steps, Fernando Pereira, IST-IT, Portugal

1979: Resource-Adaptive Multimedia Analysis on Stream Mining Systems, Deepak Turaga, IBM T J Watson Research, USA

1948: SEACAST: a protocol for peer-to-peer video streaming supporting multiple description coding, Enrico Magli, Politecnico di Torino, Italy

1990: Power and Visual Quality Optimized Video Coding for Mobile Applications: Research Issues and Some Solutions, Ishfaq Ahmad, University of Texas – Arlington, USA

2001: Key Issues in Secure, Error Resilient Compressive Sensing of Multimedia Content, Gene Wen, Tsinghua University, China

Thursday, July 2, 2009

Workshop on Multimedia Signal Processing (10:00 - 17:00)

Workshop Co-Chairs: Yen-Kuang Chen, Intel, USA

Li Deng, Microsoft Research, USA

Zhengyou Zhang, Microsoft Research, USA

(Hosted by IEEE Signal Processing Society Multimedia Signal Processing Technical Committee)

10:00 - 12:00 Session I (Each Paper 40 mins)

1962: GPGPU: General Purpose Computation on Graphics Hardware, Ruigang Yang, University of Kentucky, USA

1974: Scalable HMM based Inference Engine in Large Vocabulary Continuous Speech Recognition, Jike Chong, UC Berkeley, USA

1983: Rethinking of Computation for Future-Generation, Knowledge-Rich Speech Recognition/Understanding, Li Deng, Microsoft, USA

12:00 - 13:00 Lunch

13:00 - 15:00 Session II (Each Paper 40 mins)

1884: Distributed Video Coding, Fernando Pereira, Instituto Superior Técnico, Portugal

1984: Multimodal Collaboration and Human-Computer Interaction, Zhengyou Zhang, Microsoft, USA

1982: Multimodal Media Fusion and 3D Data Analysis and Visualization, Ling Guan, Ryerson University, Canada

15:00 - 15:20 Coffee Break

15:00 - 16:20 Poster Session

1857: Cloudlet-Screen Computing: A Multi-core-based, Cloud-computing-oriented, Traditional-computing-compatible Parallel Computing Paradigm for the Masses

1876: Multi-Core Platforms for Signal Processing: Source and Channel Coding

1880: A NEW 3D IMAGE SEGMENTATION METHOD FOR PARALLEL ARCHITECTURES

1882: PARALLEL PARTICLE FILTER ALGORITHM IN FAST FACE TRACKING

1885: ICT-eMuCo. An Innovative Solution for Future Smart Phones

1886: High-Performance Signal Processing on Emerging Many-Core Architectures Using CUDA

1889: AN AUTOMATIZED METHODOLOGY DESIGN FOR REAL-TIME SIGNAL PROCESSING APPLICATIONS IN MULTIPLE MULTI-CORE PLATFORMS

16:20 - 17:00

Session III

1978: Image and Video Analysis for the Geometric and Radiometric Modeling of 3D Scenes Stefano Tubaro, Politecnico di Milano, Italy

Friday, July 3, 2009 (9:00 – 17:00)

Workshop on Community driven Mobile Multimedia

Chairs: Mika Ylianttila, University of Oulu, Finland, Noel Crespi, Intitut TELECOM, France, Nazim Agoulmine, University of Evry, France

1796: A COOPERATIVE VIDEO ADAPTATION AND STREAMING SCHEME FOR MOBILE AND HETEROGENEOUS DEVICES IN A COMMUNITY NETWORK

1798: CAMP: A FRAMEWORK FOR COOPERATION AMONG MOBILE PROSUMERS

1905: VARIABLE FRAME RATE AND GOP SIZE H.264 RATE CONTROL FOR MOBILE COMMUNICATIONS

1908: Movie for All (M4ALL): A live J2ME Content Exchange Facility for Mobile Environments

1921: NEMOS: WORKING TOWARDS THE “SOCIAL” MOBILE PHONE

1928: DEPLOYING MOBILE MULTIMEDIA SERVICES FOR EVERYDAY EXPERIENCE SHARING

1936: UBIROCKMACHINE: A COMMUNITY-DRIVEN MUSIC DISTRIBUTION AND CONSUMPTION SYSTEM FOR SHARED URBAN SPACES

1937: A COLLABORATIVE MOBILE ARCHITECTURE FOR MULTICAST LIVE-STREAMING SOCIAL NETWORKS

Workshop on Internet Multimedia Search and Mining

Chairs: Xian-Sheng Hua Microsoft Research Asia, China, Marcel Worring University of Amsterdam, Netherlands

1799: On Cross-language Image Annotations

1807: AUTOMATIC REGION OF INTEREST DETECTION IN TAGGED IMAGES

1811: ADVERTISING BASED ON USERS’ PHOTOS

1813: HIGH-DIMENSIONAL INDEXING WITH ORIENTED CLUSTER REPRESENTATION FOR MULTIMEDIA DATABASES

1820: Boost Search Relevance for Tag-based Social Image Retrieval

1856: ACTIVE TAGGING FOR IMAGE INDEXING

1869: Large-Scale Near-Duplicate Web Video Search: Challenge and Opportunity

1872: An Analysis of the Relation between Visual Concepts and Geo-locations using Geotagged Images on the Web

1873: BIASED ISOMAP PROJECTIONS FOR INTERACTIVE RERANKING

1875: VISUAL CONTENT LAYER FOR SCALABLE OBJECT RECOGNITION IN URBAN IMAGE DATABASES

Workshop on Media Information Analysis for Personal and Social Applications

Chairs: Alexander Loui, Kodak Research Labs, USA, Susanto Rahardja, Institute for Infocomm Research, Singapore, Lekha Chaisorn, Institute for Infocomm Research, Singapore, Daniel Gatica-Perez, IDIAP Research Institute, Switzerland

1812: Event Classification in Personal Image Collections

1821: Facial Pose Estimation Using A Symmetrical Feature Model

1842: CLOSE & CLOSER: DISCOVER SOCIAL RELATIONSHIP FROM PHOTO COLLECTIONS

1859: RHYTHM ANALYSIS FOR PERSONAL AND SOCIAL MUSIC APPLICATIONS USING DRUM LOOP PATTERNS

1860: INTEGRATING A GESTURE INTERFACE TO A COMMERCIAL ONLINE DANCE GAME

1863: New Social Networking Experience using Eyetap Devices

1887: Acoustic Segment Modeling for Speaker Recognition

1888: Towards Developing a Unified Multimodal Image Retrieval Framework

1891: MAKING SENSE OF MEANING: LEVERAGING SOCIAL PROCESSES TO UNDERSTAND MEDIA SEMANTICS

1892: Towards Next-Generation Map Making

Workshop on Multimedia Aspects in Pervasive Healthcare

Chairs: B. Prabhakaran, University of Texas at Dallas, USA, Klara Nahrstedt, University of Illinois at Urbana Champaign, USA, Roozbeh Jafari, University of Texas at Dallas, USA

1808: Providing QoS Support for Wireless Remote Healthcare System

1814: A Framework for the Design of Privacy Preserving Pervasive Healthcare

1843: RECOGNIZING SHORT DURATION HAND MOVEMENTS FROM ACCELEROMETER DATA

1847: Pervasive Embedded System for the Detection of Traumatic Brain Injury

1848: CHARACTERIZING HUMAN SUBJECTS IN REAL-TIME AND THREE-DIMENSIONAL SPACES BY INTEGRATING THERMAL-INFRARED AND VISIBLE SPECTRUM CAMERAS

1852: DESIGN AND USE OF IMMERSIVE ENVIRONMENTS FOR REGAINING PROPRIOCEPTIVE ABILITIES

1957: A Framework to Detect and Classify Activity Transitions in Low-Power Applications

1959: ASSOCIATION RULE MINING IN MULTIPLE, MULTIDIMENSIONAL TIME SERIES MEDICAL DATA

1971: A Framework to Bridge Social Network and Body Sensor Network: an e-Health Perspective

Workshop on Multimedia Security and Content Protection

Chairs: Xin Wang, ContentGuard, Inc., USA, Li Zhao, Tsinghua University, China, Hongxia Jin, IBM Almaden Research Center, USA

1838: EVALUATION OF JPEG2000 HASHING FOR EFFICIENT AUTHENTICATION

1839: DRM BASED ON RIGHTS CLAIM TAGS FOR LARGE-SCALE LIVE STREAMING

1840: A NOVEL VIDEO COPY DETECTION METHOD BASED ON STATISTICAL ANALYSIS

1845: A NEW LOSSLESS DATA COMPRESSION METHOD

1851: STEGANALYSIS OF LSB BASED IMAGE STEGANOGRAPHY USING SPATIAL AND FREQUENCY DOMAIN FEATURES