ICME 2009 Technical Program

Main Conference

Monday, June 29, 2009

Full-day tutorials (9:00 – 17:00)

- Multimedia Aspects in Health Care
- Sound Capture and Processing for Multimedia Systems

Half-day tutorials (9:00 – 12:00)

- Modelling Visibility Thresholds in Human-Centric Multimedia Systems
- Peer-Assisted VoD for IPTV
- Optimal Resource Allocation for Video Communications over Distributed Systems
- Distributed Video Coding for Low Cost Multimedia Communications and Systems

Half-day tutorials (2:00 – 17:00)

- Towards Glitch-Free VoIP and Video Conferencing
- Near-Duplicate Image/Video Detection: From Indexing to Mining
- Lightweight Encryption for Multimedia Applications (afternoon)

Reception (18:30—20:30)

Tuesday, June 30, 2009

8:40 - 9:10

ICME2009 Opening

9:10 - 10:10

Keynote Talk: The Road to Immersive Multimedia Communications

Speaker: John Apostolopoulos (HP Labs)

10:10 - 10:30

Coffee Break

10:30 - 12:00

Single Track: ICME2009 Plenary session

Session Chair:

- 1621: Multi-rate Peer-to-Peer Video Conferencing: A Distributed Approach using Scalable Coding
- 1784: Optimal Resource Allocation for Video Communication over Distributed Systems
- 1052: Visual Activity Context For Focus of Attention Estimation in Dynamic Meetings

12:00 - 13:00

Lunch

13:00 - 15:00

MCP L1 (6 papers) Compression and Coding I

Session Chair:

- 1388: DIRECTIONAL FILTERING TRANSFORM
- 1685: Multiview Video Coding Using Projective Rectification-Based View Extrapolation and Synthesis Bias Correction
- 1238: SINGLE-ITERATION FULL-SEARCH FRACTIONAL MOTION ESTIMATION FOR QUAD FULL HD H.264/AVC ENCODING
- 1424: Rate-Distortion Analysis of Rectification-based View Interpolation for Multiview Video Coding
- 1431: FAST MODE SELECTION SCHEME FOR H.264/AVC INTER PREDICTION BASED ON STATISTICAL LEARNING METHOD
- 1240: A NEW STRATEGY TO PREDICT THE SEARCH RANGE IN H.264/AVC

MCP L2 (6 papers) Media Conversion and Transcoding

Session Chair:

- 1334: CONTENT-BASED HIERARCHICAL MOTION DESCRIPTION FOR MULTIPLE VIDEO ADAPTATION
- 1306: Spatial transcoding from Scalable Video Coding to H.264/AVC
- 1444: BLOCK-MATCHING TRANSLATION AND ZOOM MOTION-COMPENSATED PREDICTION
- 1303: CONTENT AWARE CONFIGURABLE ARCHITECTURE FOR H.264/AVC INTEGER MOTION ESTIMATION ENGINE
- 1260: ACCURATE BIT PREDICTION FOR INTRA-ONLY RATE CONTROL
- 1263: FRAME COMPLEXITY PREDICTION FOR H.264/AVC RATE CONTROL

MCA L1 (6 papers) Content Analysis and Synthesis I

Session Chair:

- 1223: Real-time estimation of human visual attention with dynamic Bayesian network and MCMC-based particle filter
- 1317: MULTI-VIEW MULTI-LABEL ACTIVE LEARNING FOR IMAGE CLASSIFICATION
- 1390: New PAR/NL Scheme for Stochastic Texture Interpolation
- 1021: The image Text Recognition Graph (iTRG)
- 1516: CONTEXT SALIENCY BASED IMAGE SUMMARIZATION

- 1761: LINKING VIDEO ADS WITH PRODUCT OR SERVICE INFORMATION BY WEB SEARCH

MCA L2 (6 papers) Feature Extraction and Representation I

Session Chair:

- 1242: LOGO DETECTION BASED ON SPATIAL-SPECTRAL SALIENCY AND PARTIAL SPATIAL CONTEXT
- 1345: Estimating Motion Reliability to Improve Moving Object Detection in the H.264/AVC Domain
- 1197: DAVID: DISCRIMINANT ANALYSIS FOR VERIFICATION OF MONUMENTS IN IMAGE DATA
- 1687: Fundamental Frequency Estimation for Music Signals with Modified Hilbert-Huang Transform
- 1295: VISUAL EVENT DETECTION USING ORIENTATION HISTOGRAMS WITH FEATURE POINT TRAJECTORY INFORMATION
- 1355: An Image-Based Tracking Algorithm for Hybrid Wireless Sensor Networks Using Epipolar Geometry

MNC L1 (6 papers) Multimedia Network and Communication I

Session Chair:

- 1698: A JOINT LAYERED CODING SCHEME FOR UNIFIED RELIABLE AND SECURE MEDIA TRANSMISSION WITH IMPLEMENTATION ON JPEG 2000 IMAGES
- 1758: A Hybrid FEC-ARQ Protocol for Low-Delay Lossless Sequential Data Streaming
- 1177: Detection and Filtering Spam over Internet Telephony - A User-behavior-aware Intermediate-network-based Approach
- 1770: Randomized network coding for UEP video delivery in overlay networks
- 1370: Error Resilient Video Coding via Weighted Distortion
- 1206: optimal dissemination of layered videos in P2P-based IPTV networks

MA P1 (26 papers)

Session Chair:

- 1731: Boosting Multi-modal Camera Selection with Semantic Features
- 1175: FAST FACE TRACKING USING PARALLEL PARTICLE FILTER ALGORITHM
- 1244: Super-resolution sprite with foreground removal
- 1672: EFFECTIVENESS OF N-GRAM FAST MATCH FOR QUERY-BY-HUMMING SYSTEMS
- 1746: Travel Scrapbooks: Creating Rich Visual Travel Narratives
- 1301: Automatic Local Contrast Enhancement Using Adaptive Histogram Adjustment
- 1519: Image Trimming via Saliency Region Detection and Iterative Feature Matching
- 1508: Multi-Document Video Summarization
- 1713: FEASIBILITY EVALUATION OF CONTEXT DISTRIBUTION IN MOBILE ENVIRONMENT
- 1410: INTERACTIVE ROTOSCOPING THROUGH SCALE-SPACE RANDOM WALKS
- 1874: Augmented Reality Game for Post-Stroke Patients Rehabilitation

- 1293: LEARNING FROM 1,000,000 USER-UPLOADED FACES
- 1374: TOWARDS VIRTUALLY COOKING CHINESE FOOD
- 1639: Example-Based Performance Driven Facial Shape Animation
- 1155: 3D FACIAL EXPRESSION EDITING BASED ON THE DYNAMIC GRAPH MODEL
- 1505: Universal Rasterizer with Edge Equations and Tile-Scan Triangle Traversal Algorithm for Graphics Processing Units
- 1782: FOREGROUND SEGMENTATION FOR STATIC VIDEO VIA MULTI-CORE AND MULTI-MODAL GRAPH CUT
- 1009: PTZ camera calibration for Augmented Virtual Environments
- 1583: ADAPTIVE PARTICLE FILTERS FOR VISUAL OBJECT TRACKING USING JOINT PCA APPEARANCE MODEL AND CONSENSUS POINT CORRESPONDENCES
- 1612: ALGORITHM AND ARCHITECTURE FOR OBJECT TRACKING USING PARTICLE FILTER
- 1711: MULTI LANE VEHICLE ORIENTATION EXTRACTIONS USING MULTI VIEWS FROM ROADSIDE CAMERAS
- 1185: VISUAL WORDS BASED SPATIOTEMPORAL SEQUENCE MATCHING IN VIDEO COPY DETECTION
- 1509: VIDEO FINGERPRINTING BASED ON ORIENTATION OF LUMINANCE CENTROID
- 1776: COMPRESSED VIDEO STREAM WATERMARKING FOR PEER-TO-PEER BASED CONTENT DISTRIBUTION NETWORK
- 1332: EFFICIENT WZ-TO-H.264 TRANSCODING USING MOTION VECTOR INFORMATION SHARING
- 1566: HUMAN-CENTERED PICTURE SLIDESHOW PERSONALIZATION FOR MOBILE DEVICES

15:00 - 15:20

Coffee Break

15:20 - 17:00

SS L1 (5 papers) Implicit Human-Centred Tagging

Session Chair:

- 1911: IMPLICIT HUMAN-CENTERED TAGGING
- 1903: WHY MEANINGFUL AUTOMATIC TAGGING OF IMAGES IS VERY HARD
- 1904: QUERIES AND TAGS IN AFFECT-BASED MULTIMEDIA RETRIEVAL
- 1909: INTEGRATING FACIAL EXPRESSIONS INTO USER PROFILING FOR THE IMPROVEMENT OF A MULTIMODAL RECOMMENDER SYSTEM
- 1910: IS THIS JOKE REALLY FUNNY? JUDGING THE MIRTH BY AUDIOVISUAL LAUGHTER ANALYSIS

SS L2 (5 papers) Knowledge Discovery over Community-Sharing Media - from Signal to

Intelligence

Session Chair:

- 1932: Can Social Tagged Images Aid Concept-Based Video Search?

- 1933: NOT ALL TAGS ARE CREATED EQUAL: LEARNING FLICKR TAG SEMANTICS FOR GLOBAL ANNOTATION
- 1934: TEMPORAL PATTERNS IN SOCIAL MEDIA STREAMS: THEME DISCOVERY AND EVOLUTION USING JOINT ANALYSIS OF CONTENT AND CONTEXT
- 1929: KNOWLEDGE DISCOVERY OVER COMMUNITY-SHARING MEDIA â€?FROM SIGNAL TO INTELLIGENCE
- 1930: CONNECTING PEOPLE IN PHOTO-SHARING SITES BY PHOTO CONTENT AND USER ANNOTATIONS

SS L3 (5 papers) Challenges in Large-Scale Image Retrieval

Session Chair:

- 1955: Human-Computer Interaction for Large-Scale Image Retrieval
- 1956: Filtering Adult Image Content with Topic Models
- 1961: Web Image Retrieval via Learning Semantics of Query Image
- 1960: What can visual content analysis do for text based image search?
- 1967: A LEXICA FAMILY WITH SMALL SEMANTIC GAP

SS L4 (4 papers) Network coding for multimedia streaming

Session Chair:

- 1923: An overview of network coding for multimedia streaming
- 1924: Wireless multi-party video conferencing with network coding
- 1925: Network coding-aware rate control and scheduling in wireless networks
- 1926: Rateless codes network coding for simple and efficient P2P video streaming

MII L1 (5 papers) Multimedia Interface and Interaction I

Session Chair:

- 1335: HAND POSTURE RECOGNITION IN VIDEO USING MULTIPLE CUES
- 1543: PROSODY MODELING FOR MANDARIN EXCLAMATORY SPEECH
- 1280: an efficient Multistage ROVER method for automatic speech recognition
- 1377: Who is the Expert? Analyzing Gaze Data to Predict Expertise Level in Collaborative Applications
- 1436: MINIMUM PHONE ERROR BASED STREAM WEIGHT TRAINING FOR MANDARIN AUDIO-VISUAL SPEECH RECOGNITION

MCP P1: (28 papers) Multimedia Coding and Processing

Session Chair:

- 1489: DISTRIBUTED CODING TECHNIQUES FOR ONBOARD LOSSLESS COMPRESSION OF MULTISPECTRAL IMAGES
- 1553: OFFSET BASED LEAKY PREDICTION FOR ERROR RESILIENT ROI CODING
- 1609: Efficient XML Interchange for Rich Internet Applications
- 1743: ENCODING THE SINUSOIDAL MODEL OF AN AUDIO SIGNAL USING COMPRESSED SENSING

- 1287: PARTITION-LEVEL ADAPTIVE INTERPOLATION FILTER FOR VIDEO CODING
- 1443: Bandwidth-Rate-Distortion Optimized Motion Estimation
- 1459: A Novel Weighted Cross Prediction for H.264 Intra Coding
- 1469: NOVEL VQ WITH CONSTRAINTS ON THE QUANTIZATION ERROR DISTRIBUTION
- 1470: Lossless Video Compression with Optimal Compression Plane Determination
- 1628: AN ITERATIVE SIDE INFORMATION REFINEMENT TECHNIQUE FOR TRANSFORM DOMAIN DISTRIBUTED VIDEO CODING
- 1703: DISTRIBUTED MULTIVIEW VIDEO CODING USING THE FUSION OF TRIPLE SIDE INFORMATION
- 1767: Quality Layers In Scalable Multi-View Video Coding
- 1061: FRAME-BASED BIT ALLOCATION FOR SPATIAL SCALABILITY IN H.264/SVC
- 1070: A Lossless Embedded Compression Algorithm for High Definition Video Coding
- 1311: Algorithm and Architecture Design of Multi-layer Video Coding Engine with Hybrid Scheme for Wireless Video Links
- 1547: BLOCK MATCHING ALGORITHM BASED ON LOCAL CODIRECTIONALITY OF BLOCKS
- 1667: AN ERROR RESILIENCE TECHNIQUE BASED ON FMO AND ERROR PROPAGATION FOR H.264 VIDEO CODING IN ERROR-PRONE CHANNELS
- 1232: PITCH PREDICTION USING PROSODY HIERARCHY AND DYNAMIC FEATURES FOR HMM-BASED MANDARIN SPEECH SYNTHESIS
- 1453: BIORTHOGONAL FREQUENCY-VARYING MODULATED LAPPED TRANSFORM
- 1188: RATE-DISTORTION-COMPLEXITY PERFORMANCE ANALYSIS OF THE SVC DECODER
- 1212: A NOVEL DERINGING METHOD BASED ON MAP IMAGE RESTORATION
- 1660: A HIERARCHICAL CLASSIFICATION-BASED APPROACH TO INTER MODE DECISION IN H.264/AVC
- 1005: Dynamic Search Range Control Algorithm for Inter-frame Coding in Scalable Video Coding
- 1098: LMMSE FREQUENCY MERGING FOR DEMOSAICKING
- 1496: COMPOSITE MODELING OF OPTICAL FLOW FOR ARTIFACTS REDUCTION
- 1625: MULTI-THREADED ARCHITECTURES AND BENCHMARK TESTS FOR REAL-TIME MULTI-VIEW VIDEO DECODING
- 1668: Efficient Multiple Virtual View Generation Based on Reduced Depth Stereo Image for Advanced Autostereoscopic Displays
- 1286: Noise Suppression using one-regular Unimodular Filterbanks

17:00 - 18:00

Panel I: What have been the best ideas on multimedia in the last 5 years?

Wednesday, July 1, 2009

8:40 - 9:40

Keynote Talk: Image/Video Classification and Search: Addressing Semantic Gap and User Gap

Speaker: Shih-Fu Chang (Columbia University)

9:40 - 10:00

Coffee Break

10:00 - 12:00

MCP L3 (6 papers) Compression and Coding II

Session Chair:

- 1535: FRACTIONAL COMPENSATION FOR SPATIAL SCALABLE VIDEO CODING
- 1246: ESTIMATING SPATIAL CUES FOR AUDIO CODING IN MDCT DOMAIN
- 1683: Video Coding based on Audio-Visual Attention
- 1544: FAST MULTI-REFERENCE MOTION ESTIMATION VIA STATISTICAL LEARNING FOR H.264/AVC
- 1039: BLOCK-BASED COLOR CORRECTION ALGORITHM FOR MULTI-VIEW VIDEO CODING
- 1068: A Multi-Layer Motion Estimation Scheme for Spatial Scalability in H.264/AVC SVC

MCA L3 (6 papers) Content Understanding and Knowledge Molding I

Session Chair:

- 1166: Tag Quality Improvement for Social Images
- 1393: Normalizing multi-subject variation for drivers' emotion recognition
- 1150: Human Activity Recognition Based On The Blob Features
- 1511: A Perceptual Hashing Algorithm Using Latent Dirichlet Allocation
- 1010: LEARNING IMAGE SEMANTICS WITH LATENT ASPECT MODEL
- 1040: Characterizing Conversational Group Dynamics using Nonverbal Behaviour

MCA L4 (6 papers) Feature Extraction and Representation II

Session Chair:

- 1064: Off-line Signature Verification Based on Deformable Grid Partition and Hidden Markov Models
- 1112: MOTION REGION-BASED TRAJECTORY ANALYSIS AND RE-RANKING FOR VIDEO RETRIEVAL
- 1172: Audio Genre Classification Using Percussive Pattern Clustering Combined with Timbral Features
- 1261: HIGH ACCURACY AND LANGUAGE INDEPENDENT DOCUMENT RETRIEVAL WITH A FAST INVARIANT TRANSFORM
- 1437: A NOVEL TEXT DETECTION AND LOCALIZATION METHOD BASED ON CORNER RESPONSE
- 1611: View indepedent human movement recognition from multi-view video exploiting a circular invariant posture representation

MNC L2 (6 papers) Multimedia Network and Communication II

Session Chair:

- 1502: IMPROVING FLEXIBLE MACROBLOCK ORDERING OF H.264/AVC
- 1201: a new TCP congestion control algorithm for media streaming
- 1050: CHARQ: COOPERATIVE HYBRID ARQ FOR WIRELESS VIDEO STREAMING
- 1084: Rate-distortion Based Path Selection for Video Streaming over Wireless Ad-hoc Networks
- 1053: CLASSIFICATION-BASED RELAY SELECTION FOR VIDEO STREAMING OVER WIRELESS MULTIHOP NETWORKS
- 1371: DVBMN-I: DELAY VARIATION BOUNDED MULTICAST NETWORK WITH MULTIPLE PATHS

MA L1 (6 papers) Multimedia Applications: Videoconferencing and Collaboration Environment

Session Chair:

- 1604: Modeling the Tele-Immersive Systems using Stochastic Activity Network
- 1710: METHOD FOR GENERATING VIDEO WITH VIRTUAL CAMERAWORK USING BI-DIRECTIONAL OBJECT TRACKING BETWEEN KEYFRAMES
- 1043: MINING POLYPHONIC REPEATING PATTERNS FROM MUSIC DATA USING BIT-STRING BASED APPROACHES
- 1187: A Novel Matching Frame Selection Method for Stereoscopic Video Generation
- 1315: RECOMMENDATION INDEX FOR DVB CONTENT USING SERVICE INFORMATION
- 1340: Language-model-based Detection Cascade for Efficient Classification of Image-based Spam E-mail

MII P1 (14 papers) Multimedia Interface and Interaction IV

Poster Session Chair:

- 1500: Aspect-based Video Browsing - A User Study
- 1319: HEADING TOWARD TO THE NATURAL WAY OF HUMAN-MACHINE INTERACTION: THE NIMITEK PROJECT
- 1372: High School Physics Pathway: Teachers Helping Teachers through Synthetic Interviews
- 1641: A Multi-Agent Framework For A Hybrid Dialog Management System
- 1608: AN EYE-TRACKING-BASED ADAPTIVE MULTIMEDIA STREAMING SCHEME
- 1549: IMPACT OF COGNITIVE STYLE ON SPATIAL KNOWLEDGE ACQUISITION
- 1623: OLFACTION-ENHANCED MULTIMEDIA: BAD FOR INFORMATION RECALL?
- 1477: SYNTHESIZING A HIGH-RESOLUTION IMAGE OF A LECTURE ROOM USING LECTURER TRACKING CAMERA AND PLANAR OBJECT CAPTURING CAMERA
- 1572: Preference-Based Adaptation of Multimedia Presentations for Different Display Sizes
- 1693: View Management of Annotations for Wearable Augmented Reality
- 1101: 3D PHOTODYNAMIC TOOL USING A SINGLE 2D IMAGE WITH 3D VELOCITY PRIMITIVES AND PHYSICAL EFFECTS
- 1525: Tour Recommendation System Based on Web Information and GIS
- 1158: Human Pose Estimation from Monocular Image Captures
- 1631: Image-based Lighting Adjustment Method for Browsing Object Images

MSRM P1 (10 papers)

- 1447: GABOR BOOST LINEAR DISCRIMINANT ANALYSIS FOR FACE RECOGNITION
- 1254: GAIT ANALYSIS FOR HUMAN WALKING PATHS AND IDENTITIES RECOGNITION
- 1343: 2D EXPRESSION-INVARIANT FACE RECOGNITION WITH CONSTRAINED OPTICAL FLOW
- 1695: Face Recognition with Info-Margin Maximization
- 1148: INDEPENDENT TRIANGLES SET-BASED WATERMARKING FOR 3D MODELS
- 1151: A Novel Watermarking Scheme Resilient to Video Compression
- 1165: SHAPE-BASED FEATURES FOR IMAGE HASHING
- 1512: Detecting Photographic Composites using Two-view Geometrical Constraints
- 1041: Watermarking Protocol for Protecting User's Right in Content Based Image Retrieval
- 1268: IMPROVED OPTIMIZED CONTENT-AWARE AUTHENTICATION SCHEME FOR SECURE SCALABLE STREAMING AND TRANSCODING WITH JPEG-2000 IMAGES

12:00 - 13:00

Lunch

13:00 - 15:00

MCP L4 (6 papers) Image Processing

Session Chair:

- 1104: KURTOSIS-BASED SUPER-RESOLUTION ALGORITHM
- 1225: A ROBUST SPATIAL-TEMPORAL LINE-WARPING BASED DEINTERLACING METHOD
- 1272: FAST DIRECTIONAL IMAGE INTERPOLATION WITH DIFFERENCE PROJECTION
- 1102: A NEW IKONOS IMAGERY FUSION APPROACH USING PARTICLE SWARM OPTIMIZATION
- 1704: Perceptual Compressive Sensing for Image Signals
- 1524: ACCURATE AND EFFICIENT STEREO MATCHING WITH ROBUST PIECEWISE VOTING

MCA L5 (6 papers) Content Understanding and Knowledge Molding II

Session Chair:

- 1324: IMAGE CLASSIFICATION BASED ON PYRAMID HISTOGRAM OF TOPICS
- 1403: KNSC: A NOVEL LOCAL CLASSIFICATION METHOD FOR MULTIMEDIA SEMANTIC ANALYSIS
- 1503: IMAGE RETARGETING BASED ON GLOBAL ENERGY OPTIMIZATION
- 1626: Resource-Adaptive Semantic Concept Detection Using Ensemble Classifiers
- 1037: MULTIMODAL PLSA ON VISUAL FEATURES AND TAGS
- 1700: Video Semantic Concept Detection via Associative Classification

MCA L6 (6 papers) Feature Extraction and Representation III

Session Chair:

- 1630: Audio-based Classification of Speaker Characteristics
- 1664: Distance Measurement in Panoramic Video
- 1570: VISUAL WORD PAIRS FOR AUTOMATIC IMAGE ANNOTATION
- 1107: FAST AND ROBUST VIDEO COPY DETECTION SCHEME USING FULL DCT COEFFICIENTS
- 1741: A NOVEL COLOR-CONTEXT DESCRIPTOR AND ITS APPLICATIONS
- 1171: A DATASET AND EVALUATION METHODOLOGY FOR VISUAL SALIENCY IN VIDEO

MSRM L1 (6 papers) Digital Watermarking and Data Hiding

Session Chair:

- 1590: ONE-THIRD PROBABILITY EMBEDDING: LESS DETECTABLE LSB STEGANOGRAPHY
- 1058: CONSTRUCTING SPECIFIC MATRIX FOR EFFICIENT MATRIX EMBEDDING
- 1137: A CRT BASED WATERMARK FOR MULTIPARTY MULTILEVEL DRM ARCHITECTURE
- 1382: 3D GIS VECTOR MAP WATERMARKING USING GEOMETRIC DISTRIBUTION
- 1074: IMPROVING EMBEDDING EFFICIENCY BY INCORPORATING SDCS AND WPC
- 1328: ROBUST LOSSLESS DATA HIDING BASED ON BLOCK GRAVITY CENTER FOR SELECTIVE AUTHENTICATION

MA L2 (6 papers) Multimedia Applications: Consumer, Entertainment and Education

Session Chair:

- 1044: Automatic Edition of Songs for Guitar Hero/Frets on Fire
- 1199: AN ENERGY EFFICIENT AND HIGH SECURITY WATERMARKING MECHANISM BASED ON DS-CDMA
- 1351: IMPLMENTATION OF DIGITAL AUDIO EFFECT SOC
- 1716: Accurate Alignment of Presentation Slides with Educational Video
- 1054: A COMPARISON BETWEEN TRANSMISSION METHODS OF SENSE OF FORCE IN A REMOTE HAPTIC INSTRUCTION SYSTEM
- 1215: A MULTIMEDIA ITEM AUTHORING FRAMEWORK FOR COMPUTER-BASED EDUCATION

MCA P1 (24 papers) Multimedia Content Analysis and Synthesis III

Session Chair:

- 1234: AFFECTIVE VIDEO SEGMENT RETRIEVAL FOR CONSUMER GENERATED VIDEOS BASED ON CORRELATION BETWEEN EMOTIONS AND EMOTIONAL AUDIO EVENTS
- 1520: AUDIO CHORD LABELING BY MUSIOLOGICAL MODELING AND BEAT-SYNCHRONIZATION
- 1574: HISTOGRAM BASED GHOST REMOVAL IN HIGH DYNAMIC RANGE IMAGES
- 1627: VEHICLE TRACKING FROM DISPARATE VIEWS
- 1783: Prior-Guided Automatic Object Cutout in Personal Album
- 1276: Environmental sound classification based on feature collaboration

- 1706: A Bayesian Approach Integrating Regional and Global Features for Image Semantic Learning
- 1181: Multiple Kernel Active Learning For Image Classification
- 1281: ROBUST COPY DETECTION BY MINING TEMPORAL SELF-SIMILARITIES
- 1211: Learning Based Thumbnail Cropping
- 1117: ROTATION INVARIANT CURVELET FEATURES FOR TEXTURE IMAGE RETRIEVAL
- 1135: AN IMPROVED VALENCE-AROUSAL EMOTION SPACE FOR VIDEO AFFECTIVE CONTENT REPRESENTATION AND RECOGNITION
- 1204: Discriminant sparse nonnegative matrix factorization
- 1425: NOISE ROBUST FEATURES FOR SPEECH/MUSIC DISCRIMINATION IN REAL-TIME TELECOMMUNICATION
- 1607: Sort-Merge Feature Selection and Fusion Methods for Classification of Unstructured Video
- 1480: A Lie Group based Spatiogram Similarity Measure
- 1536: Sub-band Feature Statistics Compensation Techniques Based on Discrete Wavelet Transform for Robust Speech Recognition
- 1297: Learning super resolution with global and local constraints
- 1309: PSEUDO RELEVANCE FEEDBACK WITH INCREMENTAL LEARNING FOR HIGH LEVEL FEATURE DETECTION
- 1378: AN AUTOMATIC LANGUAGE IDENTIFICATION METHOD BASED ON SUBSPACE ANALYSIS
- 1395: Finding Rows of People in Group Images
- 1523: Constructing a Landmark Identification System for Geo-tagged Photographs based on Web Data Analysis
- 1692: User generated video Annotation Using Geo-Tagged Image Databases
- 1018: REAL-TIME PEDESTRIAN AND VEHICLE DETECTION IN VIDEO USING 3D CUES

15:00 - 15:20

Coffee Break

15:20 - 17:00

MDFS L1 (5 papers) Multimedia Database and File Systems I

Session Chair:

- 1657: Cooperative Face Hallucination Using Multiple References
- 1617: On the Implementation of Semantic Content Adaptation in the Drama Manufacturing Process
- 1189: WEB-BASED TOPIC LANGUAGE MODELING FOR AUDIO INDEXING
- 1421: MULTIMODAL IMAGE RETRIEVAL VIA BAYESIAN INFORMATION FUSION
- 1123: 3D Gaussian Descriptor for 3D Shape Retrieval

MII L2 (5 papers) Multimedia Interface and Interaction II

Session Chair:

- 1170: Efficient Image and Video Re-Coloring for Colorblindness

- 1241: On Confidence and Response Times of Human Observers in Subjective Image Quality Assessment
- 1243: ADVERTISEMENT EVALUATION USING VISUAL SALIENCY BASED ON FOVEATED IMAGE
- 1075: Resolution-Invariant Image Representation for Content-based Zooming
- 1218: Summarizing Tagged Image Collections by Cross-Media Representativeness Voting

MSA L1 (5 papers) Multimedia System and Architecture I

Session Chair:

- 1213: A HIGH-PERFORMANCE ENTROPY DECODING SYSTEM FOR H.264/AVC
- 1307: Area-Efficient Line-based Two-dimensional Discrete Wavelet Transform Architecture without Data Buffer
- 1186: VLSI FRIENDLY ME SEARCH WINDOW BUFFER STRUCTURE OPTIMIZATION AND ALGORITHM VERIFICATION FOR HIGH DEFINITION H.264/AVS VIDEO ENCODER
- 1565: A HIGH PERFORMANCE AND LOW POWER HARDWARE ARCHITECTURE FOR THE TRANSFORM & QUANTIZATION STAGES IN H.264
- 1418: A 4x4-block Level Pipeline and Bandwidth Optimized Motion Compensation Hardware Design for H.264/AVC Decoder

SS L5 (5 papers) Semi-supervised learning for multimedia analysis

Session Chair:

- 1941: Some New Directions in Graph-Based Semi-Supervised Learning
- 1917: local-driven semi-supervised learning with multi-label
- 1918: Web image interpretation: semi-supervised mining annotated words
- 1919: A variational multi-view learning framework and its application to image segmentation
- 1922: mining driving safety pattern using semi-supervised learning on time series data

SS L6 (5 papers) Content Fingerprinting and Applications

Session Chair:

- 1912: CONTENT FINGERPRINTING FROM AN INDUSTRY PERSPECTIVE
- 1913: MODELING AND ANALYSIS OF CONTENT IDENTIFICATION
- 1914: VIDEO FINGERPRINTING BASED ON MOMENT INVARIANTS CAPTURING APPEARANCE AND MOTION
- 1915: CONTENT IDENTIFICATION IN CONSUMER APPLICATIONS
- 1916: MPEG-7 VISUAL SIGNATURE TOOLS

MCA P2 (24 papers) Multimedia Content Analysis and Synthesis IV

Session Chair:

- 1504: EXPLOITING GENRE FOR MUSIC EMOTION CLASSIFICATION
- 1226: LOCALIZING AND RECOGNIZING ACTION UNIT USING POSITION INFORMATION OF LOCAL FEATURE
- 1046: A TWO PHASE METHOD FOR GENERAL AUDIO SEGMENTATION

- 1721: AUDIO CONTRIBUTIONS TO SEMANTIC VIDEO SEARCH
- 1195: Variational Segmentation for Color Images via Chromaticity-Brightness Demcomposition
- 1273: HUMAN DETECTION BASED ON WEIGHTED TEMPLATE MATCHING
- 1289: Saliency-based video segmentation with graph cuts and sequentially updated priors
- 1636: A New Localized Superpixel Markov Random Field for Image Segmentation
- 1534: Measures for the Evaluation of Segmentation Methods used in Model Based People Tracking Methods
- 1294: A NEW VIDEO TEXT EXTRACTION APPROACH
- 1358: An efficient summarization algorithm based on clustering and bitstream extraction
- 1548: Visualization of Video Motion in Context of Video Browsing
- 1615: HISTOGRAM MATCHING FOR MUSIC REPETITION DETECTION
- 1369: AUTOMATIC EVALUATION METHOD FOR RUSHES SUMMARY CONTENT
- 1373: ANALYSIS OF APPEARANCE FEATURES FOR HUMAN MATCHING BETWEEN DIFFERENT FIELDS OF VIEW
- 1022: SUBJECTIVE AND OBJECTIVE QUALITY EVALUATION OF LAR CODED ART IMAGES
- 1106: FILTER OBJECT CATEGORIES: EMPLOYING VISUAL CONSISTENCY AND SEMI-SUPERVISED APPROACH
- 1571: Using One-Class SVM Outliers Detection for Verification of Collaboratively Tagged Image Training Sets
- 1735: AUDIO RETRIEVAL BY SEGMENT-BASED MANIFOLD-RANKING
- 1221: MULTIPLE UNORDERED WIDE-BASELINE IMAGE MATCHING AND GROUPING
- 1127: Adaptive division of feature space for rapid detection of near-duplicate video segments
- 1679: AN ANALYSIS OF INDEPENDENCE OF VIDEO SIGNATURES BASED ON TOMOGRAPHY
- 1650: Frontal facial view recognition in video sequences using DNMF and SVMs
- 1752: Fast Online Action Recognition with Efficient Structured Boosting

17:00 - 18:00

TBD

Thursday, July 02, 2009

8:40 - 9:40

Keynote Talk: <u>Parallel Computing Revolution in Video Processing</u>

Speaker: Wen-mei W. Hwu, University of Illinois at Urbana-Champaign

9:40 - 10:00

Coffee Break

10:00 - 12:00

MCP L5 (6 papers) Compression and Coding III

Session Chair:

- 1445: BANDWIDTH EXTENSION OF LOW BITRATE COMPRESSED AUDIO BASED ON STATISTICAL CONVERSION
- 1190: 2D Order-16 Integer Transforms for H.264/AVC
- 1208: Low Complexity Intra Mode Selection for Efficient Distributed Video Coding
- 1339: MOTION TUBES FOR THE REPRESENTATION OF IMAGE SEQUENCES
- 1356: ENTROPY CONSTRIANED COLOR SPLITTING FOR PALETTE IMAGES
- 1092: A FAST MULTIVIEW VIDEO CODING ALGORITHM BASED ON DYNAMIC MULTI-THRESHOLD

MCA L7 (6 papers) Content Understanding and Knowledge Molding III

Session Chair:

- 1049: Note Onset Detection for the Transcription of Polyphonic Piano Music
- 1589: Web Image Gathering with Region-based Bag-of-Features and Multiple Instance Learning
- 1718: LEARNING LOCAL FEATURES FOR OBJECT CATEGORIZATION
- 1568: EFFICIENT SPARSE SELF-SIMILARITY MATRIX CONSTRUCTION FOR REPEATING SEQUENCE DETECTION
- 1705: WEB IMAGE MINING USING CONCEPT SENSITIVE MARKOV STATIONARY FEATURES
- 1712: A Divide-and-conquer approach to Latent Perceptual Indexing of Audio for large Web 2.0 applications

MCA L8 (6 papers) Audio Analysis and Synthesis

Session Chair:

- 1130: A NOVEL MUSIC SIMILARITY MEASURE SYSTEM BASED ON INSTRUMENTATION ANALYSIS
- 1341: Deep Networks for Audio Event Classification in Soccer Videos
- 1715: AUTOCORRELATION-BASED BEAT ESTIMATION ADAPTIVE TO DRASTIC TEMPO CHANGE IN A SONG
- 1449: DRUM LOOP PATTERN EXTRACTION FROM POLYPHONIC MUSIC AUDIO
- 1214: A NOVEL APPROACH TO MUSICAL GENRE CLASSIFICATION USING PROBABILISTIC LATENT SEMANTIC ANALYSIS MODEL
- 1045: AUDIO CLASSIFICATION BASED ON ADAPTIVE PARTITIONING

MA L3 (6 papers) Multimedia Applications: HealthCare and Collaboration

Session Chair:

- 1363: Fast Food Recognition from Videos of Eating for Calorie Estimation
- 1729: SPEECH CONTROL IN SURGERY: A FIELD ANALYSIS AND STRATEGIES
- 1144: HEALTHCARE AUDIO EVENT CLASSIFICATION USING HIDDEN MARKOV MODELS AND HIERARCHICAL HIDDEN MARKOV MODELS
- 1454: WRINKLE-BASED SKIN AGE ESTIMATION SCHEME

- 1562: A SCALE-INVARIANT LOCAL DESCRIPTOR FOR EVENT RECOGNITION IN 1D SENSOR SIGNALS
- 1684: DYNAMIC FACE APPEARANCE MODELING AND SIGHT DIRECTION ESTIMATION BASED ON LOCAL REGION TRACKING AND SCALE-SPAC TOPO-REPRESENTION

MA L4 (6 papers) Multimedia Applications: Social Media and Gaming

Session Chair:

- 1432: AN ONLINE ADVERTISEMENT PLATFORM BASED ON IMAGE CONTENT BIDDING
- 1461: CONNECTING CONTENT TO COMMUNITY IN SOCIAL MEDIA VIA IMAGE CONTENT, USER TAGS AND USER COMMUNICATION
- 1349: A DEGREE-OF-EDIT RANKING FOR CONSUMER GENERATED VIDEO RETRIEVAL
- 1269: Data Parallelization of Kd-tree Ray Tracing on the Cell Broadband Engine
- 1023: ENHANCED 3D TREE MODEL SIMPLIFICATION AND PERCEPTUAL ANALYSIS
- 1722: Real-Time Soft Shadow for Displacement Mapped Surfaces

MNC P1 (13 papers) Multimedia Network and Communication III

Poster Session Chair:

- 1236: LOSS-DISTORTION ESTIMATION FOR PRACTICAL H.264/AVC STREAMS
- 1202: Distortion Metric for Robust 3D Point Cloud Transmission
- 1654: A CROSS-LAYER ORIENTED MULTI-CHANNEL MAC PROTOCOL DESIGN FOR QOS-CENTRIC VIDEO STREAMING OVER WIRELESS AD HOC NETWORKS
- 1140: DECENTRALIZED HEADPHONE BASED SPATIALIZED AUDIO CONFERENCING FOR LOW POWER DEVICES
- 1228: SERVER SIDE TRICK PLAY FOR VIDEO STREAMING
- 1742: SWARM SYNCHRONIZATION FOR MULTI-RECIPIENT MULTIMEDIA STREAMING
- 1413: IMPROVING THE STREAMING CAPACITY IN P2P VOD SYSTEMS WITH HELPERS
- 1662: RECEIVER-DRIVEN LAYERED OVERLAY MULTICAST FOR SCALABLE VIDEO STREAMING
- 1666: Scalability of HTTP Pacing with Intelligent Bursting
- 1003: ERROR CORRECTION SCHEME FOR UNCOMPRESSED HD VIDEO OVER WIRELESS
- 1066: LOW-COMPLEXITY PERCEPTUAL PACKET MARKING FOR SPEECH TRANSMISSION OVER TINY MOTE DEVICES
- 1252: OPTIMIZING SEGMENT CACHING FOR PEER-TO-PEER ON-DEMAND STREAMING
- 1160: A Novel Square Root Rate Control Algorithm for H.264/AVC Encoding

MDFS P1 (7 papers) Multimedia Database and File Systems III

- 1499: Image Annotation and Retrieval Based on Efficient Learning of Contextual Latent Space
- 1143: On Improving the Collision Property of Robust Hashing based on Projections
- 1042: Image Retrieval Using Noisy Query
- 1381: MOTION INFORMATION FOR VIDEO RETRIEVAL
- 1527: CLUSTERING FOR MUSIC SEARCH RESULTS

- 1476: Bregman Vantage Point Trees for Efficient Nearest Neighbor Queries
- 1643: INDEXING MELODIC SEQUENCES VIA WAVELET TRANSFORM

MSA P1 (8 papers) Multimedia System and Architecture III

- 1614: REAL-TIME SCALABLE VIDEO CODEC IMPLEMENTATION FOR SURVEILLANCE
- 1209: A 136 cycles/MB, Luma-Chroma Parallelized H.264/AVC Deblocking Filter for QFHD Applications
- 1586: A REAL TIME H.264/AVC INTRA FRAME PREDICTION HARDWARE ARCHITECTURE FOR HDTV 1080P VIDEO
- 1233: CELL/B.E. BASED ON-LINE MULTI-VIEW BROADCASTING SYSTEM
- 1367: MULTIMODAL DATA COMMUNICATION FOR HUMAN-ROBOT INTERACTIONS
- 1495: REAL-TIME H.264 ENCODER IMPLEMENTATION ON A LOW-POWER DIGITAL SIGNAL PROCESSOR
- 1603: EXPLOITING PEER RELATIONS FOR DISTRIBUTED MULTIMEDIA INFORMATION RETRIEVAL
- 1429: Pattern-Push: A Low-Delay Mesh-Push Scheduling for Live Peer-to-Peer Streaming

12:00 - 13:00

Lunch

13:00 - 15:00

MCP L6 (6 papers) Multimedia Signal Processing

Session Chair:

- 1120: OPTIMAL JOINT LINEAR ACOUSTIC ECHO CANCELATION AND BLIND SOURCE SEPARATION IN THE PRESENCE OF LOUDSPEAKER NONLINEARITY
- 1284: ROBUST LANGUAGE IDENTIFICATION BASED ON FUSED PHONOTACTIC INFORMATION WITH MLKSFM PRE-CLASSIFIER
- 1080: COLOR FILTER ARRAY DEMOSAICKING USING JOINT BILATERAL FILTER
- 1132: EMPIRICAL MODE DECOMPOSITION DESCRIPTOR FOR PLANE CLOSED CURVES
- 1323: ACOUSTIC MODELING USING AN EXTENDED PHONE SET CONSIDERING CROSS-LINGUAL PRONUNCIATION VARIATIONS
- 1292: CONFUSION NETWORK BASED VIDEO OCR POST-PROCESSING APPROACH

MCA L9 (6 papers) Audio / Video / Image Segmentation

Session Chair:

- 1600: Locality Preserving Speaker Clustering
- 1047: SPEECH SEPARATION BY EFFICIENT COMBINATORIAL DECODING OF SPEECH MIXTURES
- 1142: APPLICATION OF EVOLUTIONARY ALGORITHMS FOR IRIS LOCALIZATION
- 1415: A HYBRID TEXT SEGMENTATION APPROACH
- 1069: VIDEO TEXT DETECTION BASED ON FILTERS AND EDGE FEATURES

- 1552: SPATIAL-TEMPORAL NONPARAMETRIC BACKGROUND SUBTRACTION IN DYNAMIC SCENES

MCA L10 (6 papers) Human Face / Emotion Analysis and Synthesis

Session Chair:

- 1194: Naming faces in films using hypergraph matching
- 1528: BAYESIAN AGE ESTIMATION ON FACE IMAGES
- 1017: FACE SYNTHESIS USING FACIAL TRAIT CODE AND ITS APPLICATION TO CREATING SUSPECT'S PHYSICAL PROFILES
- 1121: POSITION-BASED FACE HALLUCINATION METHOD
- 1596: Emotion Recognition from Speech via Boosted Gaussian Mixture Models
- 1031: Structure and appearance features for robust 3D facial actions tracking

MA L5 (6 papers): Multimedia Applications: Surveillance and Security Systems

Session Chair:

- 1081: Surveillance Video Object Tracking with Differential SSIM
- 1028: MOVING TARGETS LABELING AND CORRESPONDENCE OVER MULTI-CAMERA SURVEILLANCE SYSTEM BASED ON MARKOV NETWORK
- 1113: An Online People Counting System for Electronic Advertising Machines
- 1658: Fast Detection of Retail Fraud Using Polar Touch Buttons
- 1191: Joint Anisotropic Mean Shift and Consensus Point Feature Correspondences for Object Tracking in Video
- 1326: TEXT-INDEPENDENT COMPRESSED DOMAIN SPEAKER VERIFICATION FOR DIGITAL COMMUNICATION NETWORKS CALL MONITORING

MSRM L2 (6 papers) Encryption, Authentication and Identification

Session Chair:

- 1322: DETECTION OF IMAGE SHARPENING BASED ON HISTOGRAM ABERRATION AND RINGING ARTIFACTS
- 1675: Video Identification Using Video Tomography
- 1416: A ROBUST CHAOS-BASED IMAGE ENCRYPTION SCHEME
- 1727: FAST PROTECTION OF H.264/AVC BY SELECTIVE ENCRYPTION OF CABAC
- 1515: DETECTING PHOTOGRAPHIC COMPOSITES USING SHADOWS
- 1634: Anonymous Biometric Access Control based on Homomorphic Encryption

Demo Session

Session Chair:

- 1940: APPLICATION OF A SYSTEM FOR LANDSCAPE ARCHITECTURE DATA
- 1942: Video Browsing Using Motion Visualization
- 1944: VISIADS: A VISION-BASED ADVERTISING PLATFORM FOR CAMERA PHONES
- 1795: VISUAL GAZE PROJECTION IN FRONT OF A TARGET SCENE
- 1810: Enabling Accessible Interfaces to Digital Library Content

- 1868: MOBILE WEB BROWSING INITIATED BY VISUAL SEARCH
- 2004: MPEG-21 BASED TEMPORAL VIDEO ADAPTATION FOR HETEROGENEOUS DEVICES AND MOBILE ENVIRONMENTS
- 1943: AUDIOCYCLE: A SIMILARITY-BASED VISUALIZATION OF MUSICAL LIBRARIES

15:00 - 15:20

Coffee Break

15:20 - 17:00

MCA L11 (5 papers) Content Analysis and Synthesis II

Session Chair:

- 1153: STANCE-BASED STRIKE ZONE SHAPING AND VISUALIZATION IN BROADCAST BASEBALL VIDEO: PROVIDING REFERENCE FOR PITCH LOCATION POSITIONING
- 1588: MULTI-SCALE TEMPORAL SEGMENTATION AND OUTLIER DETECTION IN SENSOR NETWORKS
- 1719: learning probabilistic structure to group image edges for object extraction
- 1751: REFINING IMAGE RETRIEVAL USING ONE-CLASS CLASSIFICATION
- 1551: HIGHLIGHT GENERATION FOR BASKETBALL VIDEO USING PROBABILISTIC EXCITEMENT

MDFS L2 (5 papers) Multimedia Database and File Systems II

Session Chair:

- 1262: A FUZZY COMBINED LEARNING APPROACH TO CONTENT-BASED IMAGE RETRIEVAL
- 1025: Efficient Human Action Recognition by Luminance Field Trajectory and Geometry Information
- 1192: A EUCLIDEAN-GEODESIC SHAPE DISTRIBUTION FOR RETRIEVAL OF TIME-VARYING MESH SEQUENCES
- 1200: Aggregative Query Generation
- 1457: RETRIEVAL OF TIME-VARYING MESH AND MOTION CAPTURE DATA USING 2D VIDEO QUERIES BASED ON SILHOUETTE SHAPE DESCRIPTORS

MII L3 (5 papers) Multimedia Interface and Interaction III

Session Chair:

- 1433: POINT-CLOUD REFINEMENT VIA EXACT MATCHING
- 1455: MULTI-VIEW RECONSTRUCTION UNDER VARYING ILLUMINATION CONDITIONS
- 1645: 3D OBJECT RELIGHTING BASED ON MULTI-VIEW STEREO AND IMAGE BASED LIGHTING TECHNIQUES
- 1411: Robust Hand Gesture Analysis and Application in Gallery Browsing
- 1678: A PHRASE-LEVEL PIECEWISE LINEAR SCALING ALGORITHM FOR MELODY MATCH IN QUERY-BY-HUMMING SYSTEMS

MSA L2 (5 papers) Multimedia System and Architecture II

Session Chair:

- 1128: RAM-based Tone Mapping for High Dynamic Range Images
- 1518: THE CYCLE-EFFICIENT IDCT ALGORITHM FOR H.264/SVC WITH DSP PLATFORM
- 1082: A Comparative Study of Multiple Description Video Coding in P2P: Normal MDSQ versus Flexible Dead-zones
- 1154: IMPROVED MIN-COST FLOW SCHEDULER FOR MESH-BASED P2P STREAMING SYSTEM
- 1203: A LIGHT-WEIGHT FEDERATED VIDEO ADAPTATION SYSTEM FOR P2P OVERLAYS

MA L6 (5 papers) Multimedia Applications: Mobile Multimedia

Session Chair:

- 1647: Energy-Efficient Image Compression in Mobile Devices for Wireless Transmission
- 1279: SPATIAL-TEMPORAL VIDEO BROWSING FOR MOBILE APPLICATION BASED ON VISUAL ATTENTION ANALYSIS
- 1321: TII BASED T-DMB LOCATION AEAS RECEIVER MODEL
- 1414: 2.66667   WikiReality: Augmenting Reality with Community Driven Websites
- 1487: Showroom Introduction Using Mobile Phone Based on Scene Image Recognition

Demo Session (Continued)

17:00 - 18:00

Panel II: What will multimedia look like in your hand?