Monday 26 October – Tutorials

ACM Multimedia 2015 Tutorials will address the state-of-the-art research and developments regarding all aspects of multimedia, and will be of interest to the entire multimedia community, from novices in the world of multimedia to the most seasoned researchers, from people working in academia to industry professionals.

Half Day Tutorials

VM Hub: Building Cloud Service and Mobile Application for Image/Video/Multimedia Services
9am – 12.30pm
Location: P7

This is an advanced tutorial intended for professionals, researchers and students who are interested to build: 1) image/video/multimedia recognition services that are hosted in the cloud, and 2) cross platform app (on iOS, android, and windows phone) that consumes their own image/video/multimedia recognition services or services provided by other parties. The class will leverage VHub, a largely open sourced image/video/multimedia hub hosted in Azure. We expect that the audience to have basic knowledge of multimedia programming.

Speaker: Jin Li

Dr. Jin Li is a Partner Research Manager of the Cloud Computing and Storage (CCS) group in Microsoft Research. He leads a small yet high performance group of researchers engaged research in an end-to-end approach, and believes that the ultimate milestone of cool research is a product of significant impact. He and his group has architected (and in many cases written the code for) the solution they have shipped in Microsoft. His work on Local Reconstruction Code (LRC) in Windows Azure Storage has led to hundreds of millions of dollars of savings for Microsoft, a Best Paper Award at USENIX ATC 2012 and a 2013 Microsoft Technical Community Network Storage Technical Achievement Award. LRC is also shipped in Windows Storage Space in Windows 8 and Windows Server 2012 R2. His group has architected and implemented the Primary Data Deduplication feature in Windows Server 2012 and End-to-End Deduplication for Storage Virtualization in Windows Server 2012 R2, which is among top 3 features for Windows File Server introduced at Windows Server 2012, received rave reviews from press, with evidence that some customers upgrading to Windows Server 2012 for the primary data deduplication feature only. His group has assisted to architect and implement the RemoteFX for WAN feature in Windows 8 and Windows Server 2012, which provides fast and fluid user experience in a remote session running over any WAN and wireless networks. Dr. Li was the recipient of Young Investigator Award from Visual Communication and Image Processing’98 (VCIP) in 1998, and the ICME 2009 Best Paper Award. He was the General Chair of PV2009, the lead Program Chair of ICME 2011. He currently serves as ICME steering committee chair and a TPC Co-Chair of ACM Multimedia 2016. He is an IEEE Fellow.

Learning Knowledge Bases for Multimedia in 2015
9am – 12.30pm
Location: P8

Knowledge acquisition, representation, and reasoning has been one of the long-standing challenges in artificial intelligence and related application areas. Only in the past few years, massive amounts of structured and semi-structured data that directly or indirectly encode human knowledge became widely available, turning the knowledge representation problems into a computational grand challenge with
feasible solutions in sight. The research and development on knowledge bases is becoming a lively fusion area among web information extraction, machine learning, databases and information retrieval, with knowledge over images and multimedia emerging as another new frontier of representation and acquisition. This tutorial aims to present a gentle overview of knowledge bases on text and multimedia, including representation, acquisition, and inference. In particular, the 2015 edition of the tutorial will include recent progress from several active research communities: web, natural language processing, and computer vision and multimedia.

**Speakers:** Lexing Xie, Haixun Wang

Lexing Xie is Senior Lecturer of Computer Science at the Australian National University. She was a research staff member at IBM T.J. Watson Research Center in New York from 2005 to 2010, and adjunct assistant professor at Columbia University 2007-2009. She received B.S. from Tsinghua University, China, and M.S. and Ph.D. degrees from Columbia University, all in Electrical Engineering. Her research interests are in applied machine learning, multimedia, social media. Lexing’s research has received six best student paper and best paper awards between 2002 and 2015, and a Grand Challenge Multimodal Prize at ACM Multimedia 2012. Her service roles include associate editorship for both the IEEE and ACM Transactions on Multimedia, and the program and organizing committees of major multimedia, machine learning, web and social media conferences.

Haixun Wang is a research scientist at Facebook. Before joining Facebook, he was a research scientist at Google Research; senior researcher at Microsoft Research Asia in Beijing, China, where he manages the group of Data Management, Analytics, and Services; he had also been a research staff member at IBM T. J. Watson Research Center for 9 years. Haixun Wang has published more than 120 research papers in referred international journals and conference proceedings. He is on the editorial board of Distributed and Parallel Databases (DADP), IEEE Transactions of Knowledge and Data Engineering (TKDE), Knowledge and Information System (KAIS), Journal of Computer Science and Technology (JCST). He is PC co-Chair of WWW 2013 (P&E), ICDE 2013 (Industry), CIKM 2012, ICMLA 2011, WAIM 2011. Haixun Wang got the ICDM 10-Year Highest Impact Paper Award in 2014, ER 2008 best paper award (DKE 25 year award), ICDM 2009 Best Student Paper run-up award, and ICDE 2015 Best Paper Award.

**Human-centric images and videos analysis**

9am – 12.30pm

Location: P11

This tutorial reviews recent progresses in human-centric images and videos analysis: 1) fashion analysis: parsing, attribute prediction and retrieval; 2) action analysis: discriminative feature selection, pooling and fusion; 3) person verification: cross-domain person verification via learning a generalized similarity measure, and bit scalable deep hashing with regularized similarity learning.

**Speakers:** Si Liu, Liang Lin, Bingbing Ni

Dr. Si Liu is now an Associate Professor in Institute of Information Engineering, Chinese Academy of Sciences. She used to be a Research Fellow at the Department of Electrical and Computer Engineering, National University of Singapore (NUS). She obtained PhD degree from Institute of Automation, Chinese Academy of Sciences (CASIA) in 2012. She obtained Bachelor degree from Experimental Class of Beijing Institute of Technology (BIT). Her current research interests include attribute prediction, object detection and image parsing. She is also interested in the applications, such as makeup and clothes recommendation, online product retrieval. She received the Best Paper Awards from ACM MM’13, Best Demo Awards from ACM MM’12.
Liang Lin is a Professor with the School of Advanced Computing, Sun Yat-Sen University (SYSU), China. He received the B.S. and Ph.D. degrees from the Beijing Institute of Technology (BIT), Beijing, China, in 1999 and 2008, respectively. From 2006 to 2007, he was a joint Ph.D. student with the Department of Statistics, University of California, Los Angeles (UCLA). His Ph.D. dissertation was achieved the China National Excellent Ph.D. Thesis Award Nomination in 2010. He was a Post-Doctoral Research Fellow with the Center for Vision, Cognition, Learning, and Art of UCLA. His research focuses on new models, algorithms and systems for intelligent processing and understanding of visual data such as images and videos. He has published more than 70 papers in top tier academic journals and conferences. He was supported by several promotive programs or funds for his works, such as “Program for New Century Excellent Talents” of Ministry of Education (China) in 2012, and Guangdong NSFs for Distinguished Young Scholars in 2013. He received the Best Paper Runners-Up Award in ACM NPAR 2010, Google Faculty Award in 2012, and Best Student Paper Award in IEEE ICME 2014. He has served as an Associate Editor for Neurocomputing and The Visual Computer.

Dr. Bingbing Ni received his B.Eng. degree in Electrical Engineering from Shanghai Jiao Tong University (SJTU), China in 2005 and obtained his Ph.D. from National University of Singapore (NUS), Singapore in 2011. Dr. Ni is currently a research scientist in Advanced Digital Sciences Center, Singapore. His research interests are in the areas of computer vision, machine learning and multimedia. Dr. Ni worked in Microsoft Research Asia, Beijing as a research intern in 2009. He also worked as a software engineer intern in Google Inc., Mountain View, CA in 2010. He received the Best Paper Award from PCM’11 and the Best Student Paper Award from PREMIA’08. He won the first prize in International Contest on Human Activity Recognition and Localization (HARL) in conjunction with International Conference on Pattern Recognition 2012, and the second prize in ChaLearn Action Recognition Challenge in conjunction with European Conference on Computer Vision (ECCV) 2014, respectively.

Interactive Video Search

1.30 – 5pm
Location: P7

With an increasing amount of video data in our daily life, the need for content-based search in videos increases as well. Though a lot of research has been spent on video retrieval tools and methods, which allow for automatic search in videos through content-based queries, still the performance of automatic video retrieval is far from optimal. One problem of automatic video retrieval is the fact that the actual search process is performed by the video retrieval engine, which is a black box for the user. More importantly, there are situations where the common query-and-browse-results approach cannot be employed, for example when users are not able to formulate their search needs through a query – or when they simply want to browse the content without any concrete query in mind. Interactive video search tools provide a more flexible way of content-based search in videos. They provide various content interaction features and give full control of the search process to the user, who will know best which features to use and how, in order to solve a search problem. In this tutorial we will discuss (i) proposed solutions for improved video content navigation, (ii) typical interaction of content-based querying features, and (iii) advanced video content visualization methods. Moreover, we will discuss and demonstrate interactive video search systems and ways to evaluate their performance.

Speakers: Klaus Schoeffmann, Frank Hopfgartner

Klaus Schoeffmann is Associate Professor at the Institute of Information Technology (ITEC) at Klagenfurt University, Austria, where he also received his Ph.D. degree in Computer Science. His current research focuses on Human-Computer-Interaction with multimedia data (e.g., image and video browsing), mobile multimedia, and video processing. He has co-authored more than 60 publications on various topic in multimedia and he has co-organized international conferences, special sessions and workshops (e.g., MMM2012, CBMI 2013, VisHMC 2014, MMC 2014, and MMC 2015). He is organizer of the Video Browser
Showdown evaluation competition (VBS). Further, he is an editorial board member of the Springer International Journal on Multimedia Tools and Applications (MTAP) and a steering committee member of the International Conference on MultiMedia Modelling (MMM). Additionally, he is member of the IEEE and the ACM and a regular reviewer for international conferences and journals in the field of Multimedia. Prof. Schoeffmann teaches various courses in computer science (including interactive multimedia applications, media technology, multimedia systems, operating systems, distributed systems).

Frank Hopfgartner is Lecturer in Information Studies at University of Glasgow. He received a PhD in Computing Science from the same university with a thesis on multimedia information retrieval. His research to date can be placed in the intersection of interactive systems and multimedia content access. He co-authored over 100 publications in above mentioned research elds, including a book on smart information systems, various book chapters and papers in peer-reviewed journals, conferences and workshops. Frank co-organizes LifeLog, a shared task at NTCIR-12 on different methods of retrieval and access of multimedia lifelogging data. Besides, he has held various roles in the organization of multimedia conferences (MMM’17, MeasuringBehaviour’16, MMM’14, ICMR’14, MMM’12) and has co-organized workshops, sessions and tutorials at major venues such as SIGIR, RecSys, ICME, Ubicomp, ECIR, Hypertext, iConference and IIiX. Moreover, he was involved in the organization of a summer school on multimedia semantics (SSMS’07). He is a regular reviewer of various renowned journals and has been PC member of international conferences (e.g., SIGIR, MM, ESWC, WWW, RecSys) and workshops.

An Introduction to Arts and Digital Culture inside Multimedia
1.30 – 5pm
Location: P8

The Arts and Digital Culture program has offered a high quality forum for the presentation of interactive and arts-based multimedia applications at the annual ACM Multimedia conference for over a decade. This tutorial will explore the evolution of this program as a guide to new authors considering future participation in this program. By surveying both past technical and past exhibited contributions, this tutorial will offer guidance to artists, researchers and practitioners on success at this multifaceted, interdisciplinary forum at ACM Multimedia.

Speakers: David A. Shamma, Daragh Byrne

David A. Shamma (Yahoo! Labs, USA) is a senior research scientist and head of the HCI Research group at Yahoo! Labs and Flickr. His personal research investigates synchronous environments and connected experiences both online and in-the-world. Focusing on creative expression and sharing frameworks, he designs and prototypes systems for multimedia-mediated communication, as well as, develops targeted methods and metrics for understanding how people communicate online in small environments and at web scale. Ayman is the creator and lead investigator on the Yahoo! Sync project, is the scientific liaison to Flickr, and is on the iSchool at Berkeley’s Data Science Advisory board. Additionally, Ayman serves on the ACM MM Steering Committee, the ACM TVx Steering Committee, and is a co-editor for Arts & Digital Culture for SIGMM. He recently was a Visiting Senior Research Fellow at the National University of Singapore’s CUTE Center in the Interactive Digital Media Institute. In the past he has worked at the Medill School of Journalism and NASA Ames Research Center. He has a Ph.D. in Computer Science from Northwestern University and a M.S./B.S. in Computer Science from the University of West Florida.

Daragh Byrne is Intel Special Faculty for Physical Computing, Responsive Environments and Emerging Media within the IDeATe Network and at School of Architecture at Carnegie Mellon University, where he explores the design of experiential media systems through process-oriented methods. Both at CMU and in his previous role as an Assistant Research Professor at Arizona State University’s School of Arts, Media and Engineering, he manages the NSF Funded XSEAD project. He also leads the recently launched the MakeSchools.org effort to catalog Making in higher education. He defended his PhD at Dublin City University
in August 2011, holds an M.Res. degree in Design and Evaluation of Advanced interactive Systems from Lancaster University and a BSc. in Computer Applications from DCU. During his research career, he has published over 40 scientific papers and his doctoral work represents a first of its kind exploration where long-term multimodal lifelog collections were established to explore the creation of personal digital stories. This research interest continues with a current focus on process-oriented design research into experience capture, participatory documentation, and in particular, digital curation.

**User-centric Cross-OSN Multimedia Computing**

1.30 – 5pm  
Location: P11

The explosion of social media has led to various Online Social Networking (OSN) services. Today’s typical netizens are using a multitude of OSN services. Exploring the user-contributed cross-OSN heterogeneous data is critical to connect between the separated data island and facilitate value mining from big social multimedia. From the perspective of content analysis, understanding the association among heterogeneous cross-OSN data is fundamental to advanced social media analysis and applications. From the perspective of user modeling, exploiting the available user data on different OSNs contributes to an integrated online user profile and thus improved customized social media services. This tutorial will introduce several pilot works on two basic tasks on cross-OSN multimedia computing: (1) From users: cross-OSN knowledge association mining and (2) For users: cross-OSN user modeling and collaborative applications.

**Speaker:** Jitao Sang

Jitao Sang is assistant professor in National Laboratory of Pattern Recognition at Institute of Automation, Chinese Academy of Sciences (CAS). He graduated his PhD from CAS with the highest honor, the special prize of CAS president scholarship. His research interest is in social multimedia computing, where the recent research on user-centric social multimedia computing has attracted increasing attentions, with award-winning publications in the prestigious multimedia conferences (best paper finalist in MM2012 & MM2013, best student paper in MMM2013, best student paper in ICMR2015). So far, he has authored one book, filed three patents, co-authored more than 40 peer-referenced papers in multimedia-related journals and conferences. He is program co-chair in PCM 2015, ICIMCS 2015, publicity chair in MMM 2015, publication chair in ICIMCS 2013, 2014, special session organizer in ICME2015, MMM2013, ICIMCS 2013, and program committee member in many conferences (MM2013, MM2014, CIKM2014, etc.). He is associate editor in Neurocomputing, guest editor in MMSJ and MTA. He is tutorial speaker at MM 2014, MMM 2015, ICME 2015 and ICMR 2015.

**Full Day Tutorials**

**Image Tag Assignment, Refinement and Retrieval**

9am – 5pm  
Location: P9

This tutorial focuses on challenges and solutions for content-based image annotation and retrieval in the context of online image sharing and tagging. We present a unified review on three closely linked problems, i.e., tag assignment, tag refinement, and tag-based image retrieval. We introduce a taxonomy to structure the growing literature, understand the ingredients of the main works, clarify their connections and difference, and recognize their merits and limitations. Moreover, we present an open-source testbed, with training sets of varying sizes and three test datasets, to evaluate methods of varied learning complexity. A selected set of eleven representative works have been implemented and evaluated. During the tutorial we provide a practice session for hands on experience with the methods, software and datasets. For repeatable experiments all data and code are online at [http://www.micc.unifi.it/tagsurvey](http://www.micc.unifi.it/tagsurvey)
Speakers: Xirong Li, Tiberio Uricchio, Lamberto Ballan, Marco Bertini, Cees G.M. Snoek, Alberto Del Bimbo

Xirong Li is currently an assistant professor at the Key Lab of Data Engineering and Knowledge Engineering, Renmin University of China. He received Bachelor (2005) and Master (2007) degrees from Tsinghua University, and the PhD degree from University of Amsterdam (2012), all in computer science. His research focuses on multimedia retrieval. He has been awarded the ACM SIGMM Best PhD Thesis Award 2013, the IEEE Transactions on Multimedia Prize Paper Award 2012, the Best Paper Award of the ACM CIVR 2010, and PCM 2014 Outstanding Reviewer Award. He has served as publicity co-chair for ACM ICMR 2013 and publication co-chair for ACM ICMR 2015.

Tiberio Uricchio is currently a Ph.D. candidate in computer science at the Media Integration and Communication Centre (MICC), University of Florence, Italy. He received his B.S. and M.S. degrees both in computer engineering from the University of Florence, Italy in 2009 and 2012, respectively. His research interests include image and video understanding, social media analysis and machine learning.

Lamberto Ballan is currently a postdoctoral researcher at Stanford University, supported by a prestigious Marie Curie Fellowship from the European Commission. He received the Laurea degree in computer engineering in 2006 and the PhD degree in computer science in 2011, both from the University of Florence, Italy. He was also a visiting scholar at the Signal and Image Processing department at Telecom ParisTech, in 2010. His research interests lie at the intersection of multimedia and computer vision, particularly in the areas of image/video understanding and social media analysis. His work was conducted in the context of several EU and national projects, and his results have led to more than 30 publications in international journals and conferences, mainly in multimedia and image analysis. He has been awarded the best paper award by the ACM-SIGMM Workshop on Social Media in 2010. He was also the lead organizer of the Web-scale Vision and Social Media Workshops at ECCV 2012 and CVPR 2014.

Marco Bertini is currently assistant Professor at the University of Florence, Italy. He is working at the Media Integration and Communication Center of the University of Florence. His interests are focused on image and video analysis, addressing semantic annotation, retrieval and transcoding. He is author of 20 journal papers and more than 90 peer-reviewed conference papers. He has been involved in 9 EU research projects as WP coordinator and researcher. Dr. Bertini is member of the editorial board of IEEE Transactions on Multimedia, and has been awarded the best paper award by the ACM-SIGMM Workshop on Social Media in 2010. He is co-organizer of the Web-scale Vision and Social Media Workshops at ECCV 2012 and CVPR 2014.

Cees G.M. Snoek is currently an Associate Professor in the Intelligent Systems Lab at the University of Amsterdam and a Principal Engineer at Qualcomm Research Netherlands. He was previously at Carnegie Mellon University, USA, UC Berkeley, and head of R&D at University spin-off Euvision Technologies (acquired by Qualcomm). His research interests focus on video and image retrieval. Dr. Snoek is the lead researcher of the award-winning MediaMill Semantic Video Search Engine, which is the most consistent top performer in the yearly NIST TRECVID evaluations. Dr. Snoek is a senior member of IEEE and ACM and member of the editorial boards for IEEE MultiMedia and IEEE Transactions on Multimedia. Cees is recipient of an NWO Veni award, a Fulbright Junior Scholarship, an NWO Vidi award, and the Netherlands Prize for ICT Research. Several of his Ph.D. students and Post-docs have won awards, including the IEEE Transactions on Multimedia Prize Paper Award, the SIGMM Best Ph.D. Thesis Award, and Best Paper Award of ACM Multimedia. He is general co-chair of ACM Multimedia 2016.

Alberto Del Bimbo is full professor at the University of Florence, Italy, where he is the Director of MICC – Media Integration and Communication Center, leading a research team on cutting-edge solutions in the fields of computer vision, multimedia content analysis, indexing and retrieval, and multimedia and multimodal interactivity. He is the author of more than 300 research papers that appeared in the most prestigious scientific journals and conference proceedings. He is a Founding Member of the ACM EuroMM, the European Chapter of ACM SIGMM, a Member of the ACM Steering Committee of ACM Int’l Conf. on Multimedia and ACM Int’l Conf. on Multimedia Retrieval and served as Associate Editor of some of the most
important journals in the field, among which Pattern Recognition, IEEE Trans. on Pattern Analysis and Machine Intelligence and IEEE Trans. on Multimedia. He was the General Chair of ECCV’12, the European Conf. on Computer Vision, ACM ICMR’11, the Int’l Conf. on Multimedia Retrieval, ACM MM’10, the Int’l Conf. on Multimedia, ACM MIR’08, the Int’l Conf. on Multimedia Information Retrieval, IEEE ISM’08, the Int’l Symposium on Multimedia, and IEEE ICMCS’99, the Int’l Conf. on Multimedia Computing & Systems.

**Emotional and Social Signals for Multimedia Research**

9am – 5pm  
**Location:** P10

A challenge for human-centred multimedia is the analysis of human communicative behaviour in multimedia content when considering especially the spontaneous non-verbal signals that are generated by humans when interacting with each other. These signals require a different approach to multimedia computing where the methods developed need findings from other disciplines such as social and behavioural psychology, affective computing and social signal processing. This tutorial aims to address the gaps in understanding between these disciplines, providing core knowledge of each domain and to disseminate basic foundational concepts in emotional and social signal research in a very practical and interactive manner.

**Speakers:** Hayley Hung, Hatice Gunes

Hayley Hung is an Assistant Professor and Delft Technology Fellow in the Pattern Recognition and Bioinformatics group at TU Delft, The Netherlands, since 2013. Between 2010-2013, she held a Marie Curie Intra-European Fellowship at the Intelligent Systems Lab at the University of Amsterdam. Between 2007-2010, she was a post-doctoral researcher at Idiap Research Institute in Switzerland. She obtained her PhD in Computer Vision from Queen Mary University of London, UK in 2007 and her first degree from Imperial College, UK in Electrical and Electronic Engineering. Her research interests are in social computing, social signal processing, machine learning, and ubiquitous computing. She is local arrangements chair for ACM MM 2016, Workshop co-chair ACM ICMI 2015, area chair of the area on emotional and social signals at ACM MM (2014-2015), co-panel organiser for the panel on Emotional and Signals in Multimedia (ACM MM 2014), Doctoral Symposium co-chair ACM MM (2013). She has organized workshops on human behavior understanding (InterHUB (Amsterdam) 2011), Measuring Behaviour in open spaces (MB 2012), HBU (ACM MM 2013). She is also a special issue guest editor for ACM Transactions on Interactive Intelligent Systems. She has received first prize in the IET Written Premium competition 2009, was nominated for outstanding paper at ICMI 2011, and was named outstanding reviewer at ICME 2014.

Hatice Gunes is a Senior Lecturer (Associate Professor) at Queen Mary University of London, leading the Affective and Human Computing Lab. Her research interests lie in the multidisciplinary areas of affective computing and social signal processing, focusing on automatic analysis of emotional and social behavior and human aesthetic canons, multimodal interaction, computer vision, machine learning, and human-computer and human-robot interactions. She published over 75 technical papers in these areas (Google scholar citations>1700, H-index=20) and was a recipient of awards for Outstanding Paper (IEEE FG’11), Quality Reviewer (IEEE ICME’11) and Best Demo (IEEE ACII’09). She serves as Associate Editor of IEEE Transactions on Affective Computing, on the Management Board of Association for the Advancement of Affective Computing, and the Steering Committee of IEEE Transactions on Affective Computing. She has also served as a Guest Editor of Special Issues in Int’l J. of Synthetic Emotions, Image and Vision Computing, and ACM Transactions on Interactive Intelligent Systems, and member of the Editorial Advisory Board for the Affective Computing and Interaction Book (IGI Global, 2011), cofounder and main organizer of the EmoSPACEWorkshops at IEEE FG’15, FG’13 and FG’11, workshop chair of MAPTRAITS’14, HBU’13 and AC4MobHCI’12, and area chair for ACM Multimedia’ 15, ACM Multimedia’14, IEEE ICME’13, ACM ICMI’13 and ACII’13. She has been involved as PI and Co-I in several projects funded by the Engineering and Physical Sciences Research Council UK (EPSRC) and the British Council.
Monday 26 October – Workshops

SIGMM Inaugural Workshop on Multimedia Frontiers
- with Invited Presentations by Multimedia Rising Stars
9am – 5pm
Location: Auditorium

In celebration of the rising leadership of the multimedia community, we are launching a new SIGMM Workshop on Multimedia Frontiers, a prestigious event exclusively reserved to highlight invited talks by rising stars who have received PhD degree within the last 10 years and demonstrated exceptional potential in multimedia research. The workshop will highlight oral presentations by the rising stars, each of 20-30 minutes length, followed by comments from other senior leaders in the related fields. Our goal is to use this event to recognize the outstanding research achievements made by the rising members of SIGMM, and at the same time, for them to share their exciting vision with the broad community. We expect the ignited dialogs among the rising stars, the senior members, and the community at large will help shape the direction and inspire new ideas in the multimedia community.

This event will be freely available to all participants in ACM Multimedia Conference. We sincerely invite everyone interested in the emerging trends and frontiers of multimedia to join us in this inaugural endeavor!

2015 Invited Rising Star Speakers:

- Cees Snoek, University of Amsterdam and Qualcomm
- ChengHsin Hsu, National Tsinghua University
- Cui Peng, Tsinghua University
- Gerald Friedland, ICSI
- Hervé Jégou, Facebook AI Research
- Kuan-Ta Chen, Academia Sinica
- Lexing Xie, Australia National University
- Pradeep Atrey, University at Albany
- Ramanthan Subramanian, ADSC
- Vivek Singh, Rutgers University
- Xavier Alameda-Pineda, University of Trento
- Yu-Gang Jiang, Fudan University

Workshop Organizers:
Shih-Fu Chang, SIGMM Chair
Rainer Lienhart, SIGMM Vice Chair
Nicu Sebe, SIGMM Conference Director

Audio/Visual Emotion Challenge and Workshop (AV+EC 2015)
9am – 5pm
Location: P6
[Program to be announced]
Tuesday 27 October – Conference Day 1

9 – 10.30am
Location: Auditorium

**Keynote: Harnessing Big Personal Data, with Scrutable User Modelling for Privacy and Control**
Speaker: Judy Kay *(The University of Sydney, Australia)*
Chair: Alan Smeaton *(Dublin City University, Ireland)*

11am - 12.30pm
Location: Auditorium

**Best Paper Session**
Chair: Heng Tao Shen *(The University of Queensland, Australia)*

- **Analyzing Free-standing Conversational Groups: A Multimodal Approach**
  Xavier Alameda-Pineda, Yan Yan *(University of Trento, Italy)*, Elisa Ricci, Oswald Lanz *(Fondazione Bruno Kessler, Italy)*, Nicu Sebe *(University of Trento, Italy)*

- **An Affordable Solution for Binocular Eye Tracking and Calibration in Head-mounted Displays**

- **SINGA: Putting Deep Learning in the Hands of Multimedia Users**
  Wei Wang *(National University of Singapore)*, Gang Chen *(Zhejiang university, China)*, Anh Tien Tuan Dinh, Jinyang Gao, Beng Chin Ooi, Kian-Lee Tan, Sheng Wang *(National University of Singapore)*

- **Weakly-Shared Deep Transfer Networks for Heterogeneous-Domain Knowledge Propagation**
  Xiangbo Shu *(Nanjing University of Science and Technolog, China)*, Guo-Jun Qi *(University of Central Florida, USA)*, Jinhui Tang *(Nanjing University of Science and Technology, China)*, Jingdong Wang *(Microsoft Research, China)*

11am - 5.30pm
Location: P9

**Demo Session 1**
Chair: Alejandro Jaimes *(Yahoo! Spain)*

- **Query-by-Emoji Video Search**
  Spencer Cappallo, Thomas Mensink, Cees G.M. Snoek *(University of Amsterdam, The Netherlands)*

- **Dive into Remote Events: Omnidirectional Video Streaming with Acoustic Immersion**
  Daisuke Ochi, Kenta Niwa, Akio Kameda, Yutaka Kunita, Akira Kojima *(NTT Media Intelligence Laboratories, Japan)*

- **Movie’s Affect Communication Using Multisensory Modalities**
  Joël Dumoulin, Diana Affi, Elena Mugellini, Omar Abou Khaled *(HumanTech Institute, University of Applied Sciences, Switzerland)* Marco Bertini, Alberto Del Bimbo *(MICC, University of Florence, Italy)*
QOEYE: A Data Driven Platform for QoE Visualization and System Performance Monitoring
Chao Zhou, Lifeng Sun, Wenming Shi, Shiqiang Yang (Tsinghua University, China)

AR in Hand: Egocentric Palm Pose Tracking and Gesture Recognition for Augmented Reality Applications
Hui Liang, Junsong Yuan, Daniel Thalmann, Nadia Magnenat Thalmann (Nanyang Technological University, Singapore)

PPTLens: Create Digital Objects with Sketch Images
Changcheng Xiao, Liqing Zhang (Shanghai Jiao Tong University, China) Changhu Wang (Microsoft Research)

A Multi-Modal 3D Capturing Platform for Learning and Preservation of Traditional Sports and Games
Francois Destelle, Amin Ahmadi, Kieran Moran, Noel E. O’Connor (INSIGHT, Dublin City University, Ireland)
Nikolaos Zioulis, Anargyros Chatzitofis, Dimitrios Zarpalas, Petros Daras (ITI-CERTH, Greece) Luis Unzueta, Jon Goenetxea, Mikel Rodriguez, Maria Linaza (Vicomtech-IK4, Spain)

Analysing Audience Response to Performing Events
Thomas Röggla, Pablo César, Chen Wang (CWI, The Netherlands)

MPEG-DASH for Low Latency and Hybrid Streaming Services
Jean Le Feuvre, Cyril Concolato, Nassima Bouzakaria, Viet-Thanh-Trung Nguyen (Telecom ParisTech, France)

eMosic: Mobile Media Pushing through Social Emotion Sensing
Jheng-Wei Peng, Shih-Wei Sun (Taipei National University of the Arts, Taiwan) Wen-Huang Cheng, Yi-Hsuan Yang (Academia Sinica, Taiwan)

PITAGORA: Recommending Users and Local Experts in an Airport Social Network
Andrea Ferracani, Daniele Pezzatini, Andrea Benericetti, Marco Guiducci, Alberto Del Bimbo (Università degli Studi di Firenze – MICC, Italy)

A System for Video Recommendation using Visual Saliency, Crowdsourced and Automatic Annotations
Andrea Ferracani, Daniele Pezzatini, Marco Bertini, Saverio Meucci, Alberto Del Bimbo (Università degli Studi di Firenze – MICC, Italy)

A Semantic Geo-Tagged Multimedia-Based Routing in a Crowdsourced Big Data Environment
Faizan Ur Rehman (University of Grenoble Alpes, France & Umm Al-Qura University, Saudi Arabia) Ahmed Lbath (University of Grenoble Alpes, France) Abdullah Murad, Md. Abdur Rahman, Bilal Sadiq, Saleh Basalamah (Umm Al-Qura University, Saudi Arabia) Akhlaq Ahmad (International Islamic University Malaysia & Umm Al-Qura University, Saudi Arabia) Ahmad Qamar (University Sains Malaysia & Umm Al-Qura University, Saudi Arabia)

Crowdsourced Multimedia Enhanced Spatio-temporal Constraint Based on-Demand Social Network for Group Mobility
Bilal Sadiq, Md. Abdur Rahman, Abdullah Murad (Umm Al-Qura University, Saudi Arabia) Muhammad Shahid (Ministry of Science and Technology, Pakistan) Faizan Ur Rehman (University of Grenoble Alpes, France & Umm Al-Qura University, Saudi Arabia) Ahmed Lbath (University of Grenoble Alpes, France) Akhlaq Ahmad (International Islamic University Malaysia & Umm Al-Qura University, Saudi Arabia) Ahmad Qamar (University Sains Malaysia & Umm Al-Qura University, Saudi Arabia)

A Multi-sensory Gesture-Based Login Environment
Ahmad Qamar (University Sains Malaysia & Umm Al-Qura University, Saudi Arabia) Abdullah Murad, Md. Abdur Rahman, Bilal Sadiq, Saleh Basalamah (Umm Al-Qura University, Saudi Arabia) Faizan Ur Rehman (University of Grenoble Alpes, France & Umm Al-Qura University, Saudi Arabia) Akhlaq Ahmad (International Islamic University Malaysia & Umm Al-Qura University, Saudi Arabia)

Hand-Object Sense: A Hand-held Object Recognition System Based on RGB-D Information
Xiong Lv, Shuqiang Jiang, Luis Herranz, Shuang Wang (Institute of Computing Technology, Chinese Academy of Sciences)
11am - 5.30pm
Location: P9

**Video Session 1**
Chair: Alejandro Jaimes *(Yahoo! Spain)*

A Cross-media Sentiment Analytics Platform For Microblog
Jitao Sang *(Institute of Automation, Chinese Academy of Sciences)* Chao Chen, Fuhai Chen, Donglin Cao, Rongrong Ji *(Xiamen University, China)*

A Unsupervised Person Re-identification Method Using Model Based Representation and Ranking
Chao Liang, Binyue Huang, Ruimin Hu, Xiaoyuan Jing, Jing Xiao *(Wuhan University, China)* Chunjie Zhang *(University of Chinese Academy of Sciences)*

Evolution of a Tabletop Telepresence System through Art and Technology
Tony Dunnigan, John Doherty, Daniel Avrahami, Jacob Biehl, Patrick Chiu, Chelhwon Kim, Qiong Liu, Henry Tang, Lynn Wilcox *(FX Palo Alto Laboratory, USA)*

LiveTraj: Real-Time Trajectory Tracking over Live Video Streams
Tom Z. J. Fu, Jianbing Ding, Marianne Winslett, Zhenjie Zhang, Yong Pei, Bingbing Ni *(Advanced Digital Sciences Center (ADSC), Singapore)* Richard T. B. Ma *(National University of Singapore)* Yin Yang *(Hamad Bin Khalifa University, Qatar)*

Automatic Accident Detection and Alarm System
Zhuo Wei, Tieyan Li *(Shield Lab, Huawei International Pte. Ltd.)* Swee-Won Lo, Jialie Shen, Robert H. Deng *(Singapore Management University)* Yu Liang *(Wuhan University, China)*

Visible Light Communication via Temporal Psycho-Visual Modulation
Chunjia Hu, Guangtao Zhai, Zhongpai Gao *(Shanghai Jiao Tong University, China)*

12.30 – 2.30pm
Location: P6

**Women in SIGMM Lunch**
Chair: Klara Nahrstedt *(University of Illinois at Urbana-Champaign, USA)*

12.30 – 2.30pm
Location: P7

**Journal of Multimedia (JMM) Meeting**
Chair: Jiebo Luo *(University of Rochester, USA)*

12.30 – 2.30pm
Location: P8

**Multimedia Computing, Communications, and Applications (TOMM) Editorial Meeting**
Chair: Ralf Steinmetz *(University of Darmstadt, Germany)*
2 - 3.30pm
Location: Auditorium

Panel: Opportunities and Challenges of Globally Networked Cameras
Panelists: Joanna Batstone (IBM, Australia) Touradj Ebrahimi (EPFL, Switzerland) Tiejun Huang (Peking University, China) Yung-Hsiang Lu (Purdue University, USA) Yonggang Wen (Nanyang Technological University, Singapore)

Abstract: Since the introduction of consumer digital cameras, user-created multimedia content has become increasingly popular. Digital cameras, together with inexpensive editing tools, and free hosting sites have made multimedia an integral part of everyday life. Today, hundreds of hours video are uploaded to hosting sites every minute. Video-on-demand through wireless networks and smartphones have profoundly changed how people consume multimedia content. Meanwhile, the widely deployed network cameras can provide live views of many parts of the world. These cameras can provide rich sources creating multimedia content. This panel will explore the opportunities and discuss the challenges using global network cameras for creating multimedia contents and understanding the world.

Every year, millions of network cameras are deployed. The data from some of these network cameras are publicly available, continuously streaming live views of national parks, city halls, streets, highways, and shopping malls. A person may see multiple tourist attractions through these cameras, without leaving home. Researchers may observe the weather in different cities. Using the data from the cameras, it is possible to observe natural disasters, such as volcano eruption or tsunami, at a safe distance. News reporters may obtain instant views of an unfolding riot without risking their lives. A spectator may watch a celebration parade from multiple locations using the street cameras. Despite the many promising applications, the opportunities of using global network cameras for creating multimedia content have not been fully exploited.

2 - 5.30pm
Location: P6 – P11 Foyer

Short Paper Poster Session 1

Chair: Jun Zhou (Griffith University, Australia)

- Joint Modeling of Users' Interests and Mobility Patterns for Point-of-Interest Recommendation
  Hongzhi Yin (The University of Queensland, Australia), Bin Cui (Peking University, China), Zi Huang, Weiqing Wang (The University of Queensland, Australia), Xian Wu (Soochow University, China), Xiaofang Zhou (The University of Queensland, Australia)

- SHOE: Sibling Hashing with Output Embeddings
  Sravanthi Bondugula, Varun Manjunatha, Larry S. Davis, David Doermann (University of Maryland College Park, USA)

- Supervised Hashing with Pseudo Labels for Scalable Multimedia Retrieval
  Jingkuan Song (University of Trento, Italy), Lianli Gao (University of Electronic Science and Technology of China), Yan Yan (University of Trento, Italy), Dongxiang Zhang (National University of Singapore), Nicu Sebe (University of Trento, Italy)

- Multi-view Latent Hashing for Efficient Multimedia Search
  Xiaobo Shen (Nanjing University of Science and Technology, China), Fumin Shen, Quan-Sen Sun (University of Electronic Science and Technology of China), Yun-Hao Yuan (Jiangnan University, China)
• Jointly Estimating Interactions and Head, Body Pose of Interactors from Distant Social Scenes
  Ramanathan Subramanian, Jagannadan Varadarajan (Advanced Digital Sciences Center, Singapore), Elisa Ricci, Oswald Lanz (Fondazione Bruno Kessler, Italy), Stefan Winkler (Advanced Digital Sciences Center, Singapore)

• Exploring Viewable Angle Information in Georeferenced Video Search
  Gang Hu, Jie Shao, Lianli Gao, Yang Yang (University of Electronic Science and Technology of China)

• Topic Hypergraph Hashing for Mobile Image Retrieval
  Lei Zhu, Jialie Shen (Singapore Management University), Liang Xie (Wuhan University of Technology, China)

• Semi-supervised Coupled Dictionary Learning for Cross-modal Retrieval in Internet Images and Texts
  Xing Xu (Kyushu University, Japan), Yang Yang (University of Electronic Science and Technology of China), Atsushi Shimada, Rin-ichiro Taniguchi (Kyushu University, Japan), Li He (Qualcomm Research and Development Center, USA)

• Vocabulary Expansion Using Word Vectors for Video Semantic Indexing
  Nakamasu Inoue, Koichi Shinoda (Tokyo Institute of Technology, Japan)

• Filter-Invariant Image Classification on Social Media Photos
  Yu-Hsiu Chen, Ting-Hsuan Chao, Sheng-Yi Bai, Yen-Liang Lin, Wen-Chin Chen, Winston H. Hsu (National Taiwan University)

• Learning Multi-view Deep Features for Small Object Retrieval in Surveillance Scenarios
  Haiyun Guo, Jinqiao Wang (National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences), Min Xu (University of Technology, Sydney, Australia), Zheng-Jun Zha (Institute of Intelligent Machines, Chinese Academy of Sciences), Hangqing Lu (National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences)

• Unsupervised Extraction of Human-Interpretable Nonverbal Behavioral Cues in a Public Speaking Scenario
  M. Iftekhar Tanveer, Ji Liu, M. Ehsan Hoque (University of Rochester, USA)

• Exploiting Word and Visual Word Co-occurrence for Sketch-based Clipart Image Retrieval
  Ching-Hsuan Liu, Yen-Liang Lin, Wen-Feng Cheng, Winston H. Hsu (National Taiwan University)

• Heterogeneous Graph-based Video Search Reranking using Web Knowledge via Social Media Network
  Soh Yoshida, Takahiro Ogawa, Miki Haseyama (Hokkaido University, Japan)

• Selective K-means Tree Search
  Tuan Anh Nguyen, Yusuke Matsui, Toshihiko Yamasaki, Kiyoharu Aizawa (Graduate School of Information Science and Technology, Japan)

• Predicting Continuous Probability Distribution of Image Emotions in Valence-Arousal Space
  Sicheng Zhao, Hongxun Yao, Xiaolei Jiang (Harbin Institute of Technology, China)

• Towards Distributed Video Summarization
  Shayok Chakraborty (Arizona State University, USA), Omesh Tickoo (Intel Labs, USA), Ravishankar Iyer (Intel Labs, USA)
• **Semantic Image Search From Multiple Query Images**
Gonzalo Vaca-Castano, Mubarak Shah (*University of Central Florida, USA*)

• **Geolocation with Subsampled Microblog Social Media**
Miriam Cha (*Harvard University, USA*), Youngjune L Gwon (*Harvard University & MIT Lincoln Laboratory, USA*), H. T. Kung (*Harvard University, USA*)

• **Social Tag Relevance Estimation via Ranking-Oriented Neighbour Voting**
Chaoran Cui (*Shandong University, China*), Jialie Shen (*Singapore Management University*), Jun Ma, Tao Lian (*Shandong University, China*)

• **EMV-matchmaker: Emotional Temporal Course Modeling and Matching for Automatic Music Video Generation**
Jen-Chun Lin (*Academia Sinica, Taiwan*), Wen-Li Wei (*National Cheng Kung University, Taiwan*), Hsin-Min Wang (*Academia Sinica, Taiwan*)

• **Scalable Multimedia Retrieval by Deep Learning Hashing with Relative Similarity Learning**
Lianli Gao (*University of Electronic Science and Technology of China*), Jingkuan Song (*University of Trento, Italy*), Fuhao Zou (*Huazhong University of Science and Technology, China*), Dongxiang Zhang (*National University of Singapore*), Jie Shao (*University of Electronic Science and Technology of China*)

• **Image Popularity Prediction in Social Media Using Sentiment and Context Features**
Francesco Gelli, Tiberio Uricchio, Marco Bertini, Alberto Del Bimbo (*University of Florence, Italy*), Shih-Fu Chang (*Columbia University, USA*)

• **Subtle Facial Expression Recognition Using Adaptive Magnification of Discriminative Facial Motion**
Sung Yeong Park, Seung Ho Lee, Yong Man Ro (*KAIST, South Korea*)

• **"Clustering of Dancelets" -- Towards Video Recommendation Based on Dance Styles**
Tingting Han, Hongxun Yao, Xiaoshuai Sun, Yanhao Zhang, Sicheng Zhao, Xiusheng Lu, Yinghao Huang, Wenlong Xie (*Harbin Institute of Technology, China*)

• **The Quest for Visual Interest**
Mohammad Soleymani (*University of Geneva, Switzerland*)

• **How to Take a Good Selfie?**
Mahdi M. Kalayeh (*Center for Research in Computer Vision at University of Central Florida, USA*), Misrak Seifu (*Jackson State University, USA*), Wesna LaLanne (*University of Central Florida, USA*), Mubarak Shah (*Center for Research in Computer Vision at University of Central Florida, USA*)

• **R2P: Recomposition and Retargeting of Photographic Images**
Hui-Tang Chang, Po-Cheng Pan (*National Taiwan University, Taiwan*), Yu-Chiang Frank Wang (*Academia Sinica, Taiwan*), Ming-Syan Chen (*National Taiwan University, Taiwan*)

• **Egocentric Video Summarization of Cultural Tour based on User Preferences**
Patrizia Varini, Giuseppe Serra, Rita Cucchiara (*University of Modena and Reggio Emlia, Italy*)

• **A Novel Statistical Approach for Image and Video Retrieval and Its Adaption for Active Learning**
Moitreya Chatterjee, Anton Leuski (*University of Southern California, USA*)
• **Automatically Stereoscopic Camera Control for 3D Animation Production**
  Dawei Lu, Huadong Ma, Zeyu Wang, Liang Liu, Huiyuan Fu (Beijing University of Posts and Telecommunications, China)

• **Color Photo Makeover via Crowd Sourcing and Recoloring**
  Wengang Cheng, Ruru Jiang (North China Electric Power University), Chang Wen Chen (State University of New York at Buffalo, USA)

• **Multi-view Semi-supervised Learning for Web Image Annotation**
  Mengqiu Hu, Yang Yang (University of Electronic Science and Technology of China), Hanwang Zhang (National University of Singapore), Fumin Shen, Jie Shao (University of Electronic Science and Technology of China), Fuhao Zou (Huazhong University of Science and Technology, China)

• **Tracking Cultural Differences in News Video Creation**
  Chun-Yu Tsai, John R. Kender (Columbia University, USA)

• **Click-through-based Deep Visual-Semantic Embedding for Image Search**
  Yuan Liu, Zhongchao Shi (Ricoh Software Research Center (Beijing) Co., Ltd., China), Xue Li (Ricoh Company, Ltd., Japan), Gang Wang (Ricoh Software Research Center (Beijing) Co., Ltd., China)

• **Partially Common-Semantic Pursuit for RGB-D Object Recognition**
  Lu Jin, Zechao Li, Xiangbo Shu (Nanjing University of Science and Technology, China), Shenghua Gao (ShanghaiTech Universit, China), Jinhui Tang (Nanjing University of Science and Technology, China)

• **Pinterest Board Recommendation for Twitter Users**
  Xitong Yang, Yuncheng Li, Jiebo Luo (University of Rochester, USA)

• **A Video Timeline with Bookmarks and Prefetch State for Faster Video Browsing**
  Axel Carlier, Vincent Charvillat (University of Toulouse, France), Wei Tsang Ooi (National University of Singapore)

• **Giggler: An Intuitive, Real-Time Integrated Wireless In-Ear Monitoring and Personal Mixing System using Mobile Devices**
  Andries Valstar, Min-Chieh Hsiu, Te-Yen Wu, Mike Y. Chen (National Taiwan University)

• **Dynamic Adjustment of Subtitles Using Audio Fingerprints**
  Lucas C. Villa Real, Rodrigo Laiola Guimarães, Priscilla Avegliano (IBM Research, Brazil)

• **Octave-dependent Probabilistic Latent Semantic Analysis to Chorus Detection of Popular Song**
  Sheng Gao, Haizhou Li (Institute for Infocomm Research, A*STAR, Singapore)

• **Subjectivity in Aesthetic Quality Assessment of Digital Photographs: Analysis of User Comments**
  Won-Hee Kim, Jun-Ho Choi, Jong-Seok Lee (Yonsei University, South Korea)

• **EEG Connectivity Analysis in Perception of Tone-mapped High Dynamic Range Videos**
  Seong-Eun Moon, Jong-Seok Lee (Yonsei University, South Korea)

• **Polyphonic Music Modelling with LSTM-RTRBM**
  Qi Lyu, Zhiyong Wu, Jun Zhu (Tsinghua University, China)
• **Multi-Sensor Cello Recordings for Instantaneous Frequency Estimation**
  Fabian-Robert Stöter (*International Audio Laboratories Erlangen, Germany*), Michael Müller (*TU Graz, Austria*), Bernd Edler (*International Audio Laboratories Erlangen, Germany*)

• **An Elicitation Study on Gesture Attitudes and Preferences Towards an Interactive Hand-Gesture Vocabulary**
  Haiwei Dong (*University of Ottawa, Canada*), Nadia Figueroa (*Swiss Federal Institute of Technology Lausanne, Switzerland*), Abdulmotaleb El Saddik (*University of Ottawa, Canada*)

• **Automated Video Editing for Aesthetic Quality Improvement**
  Jun-Ho Choi, Jong-Seok Lee (*Yonsei University, South Korea*)

• **Multimodal Dataset for Assessment of Quality of Experience in Immersive Multimedia**
  Anne-Flore Nicole Marie Perrin, He Xu, Eleni Kroupi, Martin Rerabek, Tourajd Ebrahimi (*MMSPG, EPFL, Switzerland*)

• **MIL: Music Exploration and Visualization via Lyric and Image**
  Xixuan Wu (*The Chinese University of Hong Kong*), Yu Qiao (*Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences*), Xiaou Tang (*The Chinese University of Hong Kong*)

• **ESC: Dataset for Environmental Sound Classification**
  Karol J. Piczak (*Warsaw University of Technology, Poland*)

• **Improving Feature Aggregation for Semantic Music Retrieval**
  Zhouyu Fu (*University of Western Sydney, Australia*)

• **Accelerating Large-scale Image Retrieval on Heterogeneous Architectures with Spark**
  Hanli Wang, Bo Xiao, Lei Wang, Jun Wu (*Tongji University, China*)

• **Implementation of Face Recognition for Screen Unlocking on Mobile Device**
  Chung-Hua Chu, Shih-Ming Peng (*National Taichung University of Science and Technology, Taiwan*)

• **Web-based Interactive Free-Viewpoint Streaming**
  Matthias Ueberheide, Felix Klose (*TU Braunschweig, Germany*), Tilak Varisetty, Markus Fidler (*Leibniz Universität Hannover, Germany*), Marcus Magnor (*TU Braunschweig, Germany*)

• **Distributed Bandwidth-efficient Packet Scheduling for Live Streaming with Network Coding**
  Shenglan Huang, Ebroul Izquierdo, Pengwei Hao (*Queen Mary, University of London, UK*)

• **Vision-Inertial Hybrid Tracking for Robust and Efficient Augmented Reality on Smartphones**
  Xin Yang, Xun Si (*Huazhong University of Science and Technology, China*), Tangli Xue, Liheng Zhang (*School of Electronics Information and Communications, China*), Kwang-Ting (Tim) Cheng (*University of California, Santa Barbara, USA*)

• **An SDN Controller for Delay and Jitter Reduction in Cloud Gaming**
  Maryam Amiri, Hussein Al Osman, Shervin Shirmohammadi (*University of Ottawa, Canada*), Maha Abdallah (*Pierre and Marie Curie University, France*)

• **The invisible QR code**
  Zhongpai Gao, Guangtao Zhai, Chunjia Hu (*Institute of Image Communication and Information Processing, Shanghai Jiao Tong University, China*)
3D Background Modeling in Multi-view RGB-D Video
Yung-Lin Huang, Ku-Chu Wei, Shao-Yi Chien (National Taiwan University)

Audio Routing for Scalable Conferencing using AAC-ELD and Bit Stream Domain Energy Estimation
Iaroslav Kryvyi, Nikolaus Färber, Conrad Benndorf, Manfred Lutzky (Fraunhofer IIS, Germany)

EcoFlow: An Economical and Deadline-Driven Inter-Datacenter Video Flow Scheduling System
Yuhua Lin, Haiying Shen, Liuhua Chen (Clemson University, USA)

Ciphertext-Only Attack on an Image Homomorphic Encryption Scheme with Small Ciphertext Expansion
Yunyu Li, Jiantao Zhou, Yuanman Li (Faculty of Science and Technology, University of Macau)

4 - 6pm
Location: Auditorium

Open Source Software Competition

Chairs: Tao Mei (Microsoft Research Asia, China) Marco Bertini (University of Florence, Italy) Xian-Sheng Hua (Alibaba, China)

Theia: A Fast and Scalable Structure-from-Motion Library
Chris Sweeney, Tobias Hollerer, Matthew Turk (UC Santa Barbara, USA)

SINGA: A Distributed Deep Learning Platform
Beng Chin Ooi, Kian-Lee Tan, Sheng Wang, Wei Wang, Qingchao Cai, Jinyang Gao, Zhaojing Luo, Zhongle Xie, Kaiping Zheng (National University of Singapore) Gang Chen (Zhejiang University, China) Yuan Wang (NetEase, Singapore)

MatConvNet
Andrea Vedaldi, Karel Lenc (University of Oxford, UK)

The fertilized forests Decision Forest library
Christoph Lassner (University of Augsburg, Germany)

Amalia.js: an open-source metadata driven HTML5 multimedia player
Nicolas Hervé, Pierre Letessier, Mathieu Derval, Hakim Nabi (INA, France)

SIVA Suite: Framework for Hypervideo Creation, Playback and Management
Britta Meixner, Stefan John, Christian Handschgl (University of Passau, Germany)

Aurio: Audio Processing, Analysis and Retrieval
Mario Guggenberger (University of Klagenfurt, Austria)

eRS - A system to facilitate emotion recognition in movies
Joël Dumoulin, Diana Affi, Elena Muggellini, Omar Abou Khaled (HumanTech Institute (HES-SO), Switzerland)

WATSS: a Web Annotation Tool for Surveillance Scenarios
Federico Bartoli, Lorenzo Seidenari, Giuseppe Lisanti, Svebor Karaman, Alberto del Bimbo (University of Florence, Italy)
Oral Session 1: Multimedia Indexing and Search
Chair: Heng Tao Shen (The University of Queensland, Australia)

- Fast and Accurate Content-based Semantic Search in 100M Internet Videos
  Lu Jiang, Shou-I Yu (Carnegie Mellon University, USA), Deyu Meng (Xi'an Jiaotong University, China), Yi Yang (University of Technology Sydney, Australia), Teruko Mitamura, Alexander G Hauptmann (Carnegie Mellon University, USA)

- Visual Coding in a Semantic Hierarchy
  Yang Yang (University of Electronic Science and Technology of China), Hanwang Zhang (National University of Singapore), Mingxing Zhang, Fumin Shen (University of Electronic Science and Technology of China), Xuelong Li (Chinese Academy of Sciences)

- Deep Compositional Cross-modal Learning to Rank via Local-Global Alignment
  Xinyang Jiang, Fei Wu, Xi Zhou, Zhao Zhao, Weiming Lu, Siliang Tang, Yueting Zhuang (Zhejiang University, China)

- Effective Multi-Query Expansions: Robust Landmark Retrieval
  Yang Wang, Xuemin Lin (The University of New South Wales, Australia), Lin Wu (The University of Adelaide, Australia), Wenjie Zhang (The University of New South Wales, Australia)

Oral Session 2: Social Multimedia
Chair: Tao Mei (Microsoft Research Asia, China)

- What are Popular: Exploring Twitter Features for Event Detection, Tracking and Visualization
  Hongyun Cai (The University of Queensland, Australia), Yang Yang (University of Electronic Science and Technology of China), Xuefei Li, Zi Huang (The University of Queensland, Australia)

- Cross-Domain Collaborative Learning in Social Multimedia
  Shengsheng Qian, Tianzhu Zhang (National Lab of Pattern Recognition, Institute of Automation, CAS, China), Richang Hong (School of Computer and Information, Hefei University of Technology, China), Changsheng Xu (National Lab of Pattern Recognition, Institute of Automation, CAS, China)

- Learning Socially Embedded Visual Representation from Scratch
  Shaowei Liu, Peng Cui, Wenwu Zhu, Shiqiang Yang (Tsinghua University, China)

- Spatial-aware Multimodal Location Estimation for Social Images
  Jiewei Cao, Zi Huang (The University of Queensland, Australia), Yang Yang (University of Electronic Science and Technology of China)
4 – 5.30pm
Location: P8

**Oral Session 3: Emotional and Social Signals in Multimedia**

Chair: Hayley Hung (*Technical University of Delft, The Netherlands*)

- **Collaborative Fashion Recommendation: A Functional Tensor Factorization Approach**
  Yang Hu, Xi Yi, Larry S. Davis (*University of Maryland, USA*)

- **Predicting and Understanding Urban Perception with Convolutional Neural Networks**
  Lorenzo Porzi, Samuel Rota Bulò, Bruno Lepri, Elisa Ricci (*Fondazione Bruno Kessler, University of Perugia, Italy*)

- **A Multimodal Predictive Model of Successful Debaters or How I Learned to Sway Votes**
  Maarten Brilman (*University of Twente, The Netherlands*), Stefan Scherer (*USC Institute for Creative Technologies, USA*)

- **Visual Affect Around the World: A Large-scale Multilingual Visual Sentiment Ontology**
  Brendan Jou, Tao Chen (*Columbia University, USA*), Nikolaos Pappas (*Idiap Research Institute, Switzerland*), Miriam Redi (*Yahoo Labs, United Kingdom*), Mercan Topkara (*JW Player, USA*), Shih-Fu Chang (*Columbia University, USA*)

6 - 8pm
Location: P10 – P11 & Foyer

**Art Exhibit Opening & Welcome Reception**

Using Handmade Controllers for Interactive Projection Mapping
Alinta K. Krauth (*Griffith University, Australia*)

3D Printing and Camera Mapping: Dialectic of Virtual and Reality
He-Lin Luo, Yi-Ping Hung (*National Taiwan University*) I-Chun Chen (*Taipei National University of the Arts, Taiwan*)

Drag A Star – the Social Media in Outer Space
James She (*Hong Kong University of Science & Technology*) Cameron Ng (*JM Network, Hong Kong*) Desmond Leung (*Desmond Leung Media Arts, Hong Kong*)

Disturbed System: Recreating Sculptor’s Experience of Their Medium With Haptics and Generated Sound
Oksana Krzyhanivska, Simon Fay, Jeffrey E. Boyd (*University of Calgary, Canada*)

The Real Time Rolling Shutter
David S. Monaghan, Noel E. O’Connor (*Dublin City University, Ireland*) Anne Cleary, Denis Connolly (*Independent artists, France*)
WEDNESDAY 28 October – Conference Day 2

9.00 – 10.30am
Location: Auditorium

SIGMM Awards & Plenary Talks

Chair: Shih-Fu Chang (Columbia University, USA)

SIGMM Technical Achievement Award
Dr. Tat-Seng Chua (National University of Singapore)

SIGMM Rising Star Award
Dr. Yu-Gang Jiang (Fudan University, China)

SIGMM Best Ph.D. Thesis Award
Dr. Ting Yao (City University of Hong Kong) (Currently Microsoft Research)

TOMM Nicolas D. Georganas Best Paper Award

TOMM Best Associate Editor Award
Dr. Pradeep K. Atrey (State University of New York, Albany, USA)

11am – 12.30pm
Location: Auditorium

Grand Challenge Presentations

Chair: David A Shamma (Yahoo! Labs, USA)

====== Microsoft Grand Challenge ======

Image Retrieval by Cross-Media Relevance Fusion
Xirong Li (Renmin University of China) Jianfeng Dong (Zhejiang University) Xirong Li, Shuai Liao, Jieping Xu (Renmin University of China)

Learning Deep Features For MSR-bing Information Retrieval Challenge
Song Qiang, Sixie Yu, Cong Leng, Jiaxiang Wu, Qinghao Hu, Jian Cheng (Chinese Academy of Sciences)

====== IBM Grand Challenge ======

What Makes New York So Noisy? Reasoning Urban Noise Pollution from Multimodal Geo-Social Media Data
Cheng-Te Li (Academia Sinica, Taiwan) Hsun-Ping Hsieh (National Taiwan University) Tzu-Chi Yen (Sensoro Technology Co. Ltd., China)

Who are the devils wearing Parada in New York City?
OmniViewer:
Enabling Multi-Modal Content Delivery Network: Eliminating the Digital Divide

KuanTing Chen, Kezhen Chen, Peizhong Cong, Jiebo Luo (University of Rochester, USA)

==== Yahoo! Grand Challenge ====

FLYER: A Yahoo-Flickr YFCC100M Event Summarization System
Rajiv Shah (National University of Singapore) Wenjing Geng (Nanjing University, China) Yi Yu (National Institute of Informatics, Japan) Anwar Shaikh (Delhi Technological University, India) Roger Zimmermann (National University of Singapore) Gangshan Wu (Nanjing University, China)

Multimodal Graph-based Event Detection and Summarization in Social Media Streams
Manos Schinas, Symeon Papadopoulos (Certh ITI, Greece)

Evento 360: Social Event Discovery from Web-scale Multimedia Collection
Jaeyoung Choi, Eungchan Kim (International Computer Science Institute, USA / Delft University of Technology, The Netherlands) Martha Larson (Delft University of Technology, The Netherlands) Gerald Friedland (International Computer Science Institute, USA) Alan Hanjalic (Delft University of Technology, The Netherlands)

Unsupervised Latent Sub-events Discovery based on Multi-content and Human Activities Analysis for Diverse Event Summarization
Wen-Yu Lee, Yin-Hsi Kuo, Peng-Ju Hsieh, Wen-Feng Cheng, Ting-hsuan Chao, Hui-lan Hsieh, Chieh-En Tsai, Hsiao-Ching Chang, Jia-Shin Lan, Winston Hsu (National Taiwan University)

11am - 5.30pm
Location: P9

Demo Session 2
Chair: Zheng-Jun Zha (Hefei Institute of Intelligent Machines, Chinese Academy of Sciences)

What Shall I Look Like after N Years?
Xiangbo Shu, Jinhui Tang (Nanjing University of Science and Technology, China) Luoqi Liu, Zhiheng Niu, Shuicheng Yan (National University of Singapore)

Searching and Browsing Live, Web-based Meetings
Scott Carter, Laurent Denoue, Matthew Cooper (FX Palo Alto Laboratory, Inc., USA)

Deep Face Beautification
Jianshu Li, Luoqi Liu, Shuicheng Yan (National University of Singapore) Chao Xiong (Imperial College, UK) Xiangbo Shu (Nanjing University of Science and Technology, China)

Pan360: INS Assisted 360-Degree Panorama (Demo Description)

HeartHealth: New Adventures in Serious Gaming
David S. Monaghan, Freddie Honohan, Edmond Mitchell, Noel E. O’Connor (Dublin City University, Ireland) Anargyros Chatzitofis, Dimitrios Zarpalas, Petros Daras (Information Technologies Institute/Centre for Research and Technology Hellas, Greece)

Challenged Content Delivery Network: Eliminating the Digital Divide
Hua-Jun Hong, Shu-Ting Wang, Chih-Pin Tan, Cheng-Hsin Hsu (National Tsing Hua University, Taiwan) Tarek El-Ganainy, Mohamed Hefeeda (Qatar Computing Research Institute, HBKU) Khaled Harras (Carnegie Mellon University, USA)

OmniViewer: Enabling Multi-modal 3D DASH
Zhenhuan Gao, Shannon Chen, Klara Nahrstedt (University of Illinois at Urbana-Champaign, USA)

Large Video Event Ontology Browsing, Search and Tagging (EventNet Demo)
Hongliang Xu, Guangnan Ye, Yitong Li, Dong Liu, Shih-Fu Chang (Columbia University, USA)

MASTER: Multi-platform Application Streaming Toolkits for Elastic Resources
Yusen Li, Yinhua Deng, Ronald Seet, Xueyan Tang, Wentong Cai (Nanyang Technological University, Singapore)

smArt: Open and Interactive Indoor Cultural Data
Andrea Ferracani, Daniele Pezzatini, Alberto Del Bimbo, Riccardo Del Chiaro, Franco Yang, Maurizio Sanesi (Università degli Studi di Firenze – MICC, Italy)

i-Diary: A Crowdsourcing-based Spatio-Temporal Multimedia Enhanced Points of Interest Authoring Tool
Akhtlaq Ahmad (International Islamic University Malaysia & Umm Al Qura University, Saudi Arabia) Faizan ur Rehman (Umm Al Qura University, Saudi Arabia & University of Grenoble Alpes, France) Md. Abdur Rahman, Abdullah Murad, Bilal Sadiq, Salah Basalamah (Umm Al Qura University, Saudi Arabia) Ahmad Qamar (University Sains Malaysia & Umm Al Qura University, Saudi Arabia) Mohamed Ridza Wahiddin (International Islamic University Malaysia)

B-box Mixer: An Interactive UI for Generating B-box Music
Yi-Zhu Dai, Ting-Chia Lee, Xin-Yu Kuo, Tse-Yu Pan, Min-Chun Hu (National Cheng Kung University, Taiwan)

DeepFont: A System for Font Recognition and Similarity
Zhangyang Wang, Thomas Huang (University of Illinois at Urbana-Champaign, USA) Jianchao Yang (Snapchat, USA) Hailin Jin, Jonathan Brandt, Eli Shechtman, Zhaowen Wang, Yuyan Song, Joseph Hsieh, Sarah Kong (Adobe, USA) Aseem Agarwala (Google, USA)

ObjectMinutiae: Fingerprinting for Object Authentication
Tzu-Yun Lin, Yu-Chiang Frank Wang (Research Center for IT Innovation, Academia Sinica, Taiwan) Sean Moss-Pultz (Bitmark, Inc., Taiwan)

Hyper Video Browser: Search and Hyperlinking in Broadcast Media
Maria Eskevich, Huynh Nguyen, Mathilde Sahuguet, Benoit Huet (EURECOM, France)

11am - 5.30pm
Location: P10-11

Art Exhibit

12.30 – 2.30pm
Location: P6

IEEE Multimedia Magazine Editorial Meeting
Chair: Alan Hanjalic (University of Delft, The Netherlands)

12.30 – 2.30pm
Location: P7

Multimedia Systems Journal (MMSJ) Editorial Meeting
Chair: Thomas Plagemann (University of Oslo, Norway)
12.30 – 3.30pm  
Location: P8

**Doctoral Symposium**  
Chairs: Hervé Jégou (*Facebook AI Research, France*) Cees G. M. Snoek (*University of Amsterdam, The Netherlands*)

- **Real-Time Assistance in Multimedia Capture Using Social Media**  
  Yogesh Singh Rawat (*National University of Singapore*)

- **Intuitive Input Methods for Interactive Segmentation on Mobile Touch-Based Devices**  
  Christoph Korinke (*OFFIS - Institute for Information Technology, Germany*)

- **Exploiting Contextual Information to Enable Efficient Content Delivery for 3D Tele-Immersion Applications**  
  Shannon Chen (*University of Illinois at Urbana-Champaign, USA*)

- **Socializing Multimodal Sensors for Information Fusion**  
  Yuhui Wang (*National University of Singapore*)

- **Learn to Recognize Actions Through Neural Networks**  
  Zhenzhong Lan (*Carnegie Mellon University, USA*)

- **Challenge for Manga Processing: Sketch-based Manga Retrieval**  
  Yusuke Matsui (*The University of Tokyo, Japan*)

- **Captioning Images Using Different Styles**  
  Alexander Patrick Mathews (*Australian National University*)

- **Weakly Supervised Learning of Part-based Models for Interaction Prediction via LDA**  
  Jia-Lin Chen (*National Taiwan University*)

2 - 3.30pm  
Location: Auditorium

**Brave New Ideas**  
Chair: Nicu Sebe (*University of Trento, Italy*)

- **How Was It? Exploiting Smartphone Sensing to Measure Implicit Audience Responses to Live Performances**  
  Claudio Martella (*VU University of Amsterdam, The Netherlands*) Ekin Gedik, Laura Cabrera-Quiros, Hayley Hung (*Delft University of Technology, The Netherlands*) Gwenn Englebienne (*University of Twente, The Netherlands*)

- **Loud and Trendy: Crowdsourcing Impressions of Social Ambiance in Popular Indoor Urban Places**  
  Darshan Santani, Daniel Gatica-Perez (*Idiap Research Institute and EPFL, Switzerland*)

- **Bringing Deep Causality to Multimedia Data Streams**  
  Laleh Jalali, Ramesh Jain (*University of California, Irvine, USA*)

- **Analytic Quality: Evaluation of Performance and Insight in Multimedia Collection Analysis**  
  Jan Zahálka, Stevan Rudinac, Marcel Worring (*University of Amsterdam, The Netherlands*)
2 - 5.30pm
Location: P6 – P11 Foyer

Short Paper Poster Session 2

Chair: Dian Tjondronegoro (Queensland University of Technology, Australia)

- **Sense Beyond Expressions: Cuteness**
  Kang Wang (Rensselaer Polytechnic Institute, USA), Tam V Nguyen (Singapore Polytechnic), Jiashi Feng (University of California, Berkeley, USA), Jose Sepulveda (Singapore Polytechnic)

- **Joint Visual-Textual Sentiment Analysis with Deep Neural Networks**
  Quanzeng You, Jiebo Luo (University of Rochester, USA), Hailin Jin (Adobe Research, USA), Jianchao Yang (Snapchat Inc, USA)

- **Attribute Mining for Scalable 3D Human Action Recognition**
  Xingyang Cai, Wengang Zhou, Houqiang Li (Dept. of EEIS, University of Science and Technology of China)

- **Learning Features from Large-Scale, Noisy and Social Image-Tag Collection**
  Hanwang Zhang, Xindi Shang (National University of Singapore), Huanbo Luan (Tsinghua University, China), Yang Yang (University of Electronic Science and Technology of China), Tat-Seng Chua (National University of Singapore)

- **Saliency Detection Based on Graph-Structural Agglomerative Clustering**
  Youbao Tang, Xiangqian Wu, Wei Bu (Harbin Institute of Technology, China)

- **Detecting Salient Objects via Spatial and Appearance Compactness Hypotheses**
  Ping Hu, Weiqiang Wang, Ke Lu (University of Chinese Academy of Sciences)

- **A Probabilistic Approach for Image Retrieval Using Descriptive Textual Queries**
  Yashaswi Verma, C. V. Jawahar (IIIT Hyderabad (India))

- **Multi-cue Augmented Face Clustering**
  Chengju Zhou (Institute of Information Engineering, Chinese Academy of Sciences), Changqing Zhang (Tianjin University, China), Huazhu Fu (Nanyang Technological University, Singapore), Rui Wang, Xiaochun Cao (Institute of Information Engineering, Chinese Academy of Sciences)

- **Robust Deep Auto-encoder for Occluded Face Recognition**
  Lele Cheng, Jinjun Wang, Yihong Gong, Qiqi Hou (Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University, China)

- **Dissecting Urban Noises from Heterogeneous Geo-Social Media and Sensor Data**
  Hsun-Ping Hsieh (National Taiwan University), Rui Yan (Baidu Inc., Taiwan), Cheng-Te Li (Academia Sinica, Taiwan)

- **Deep Multimodal Speaker Naming**
  Yongtao Hu (The University of Hong Kong, China), Jimmy SJ. Ren (SenseTime Group Limited, China), Jingwen Dai (Xim Industry Inc., China), Chang Yuan (Lenovo Group Limited, China), Li Xu (SenseTime Group Limited, China), Wenping Wang (The University of Hong Kong, China)
• **Cross-Modal Image-Tag Relevance Learning for Social Images**
  Yong Cheng, Zhengxiang Cai, Rui Feng, Cheng Jin, Yuejie Zhang (*Fudan University, China*), Tao Zhang (*Shanghai University of Finance and Economics, China*)

• **Local Depth Patterns for Tracking in Depth Videos**
  Sari Awwad, Fairouz Hussein, Massimo Piccardi (*University of Technology Sydney, Australia*)

• **ConvNets-Based Action Recognition from Depth Maps through Virtual Cameras and Pseudocoloring**
  Pichao Wang, Wanjing Li, Zhimin Gao, Chang Tang, Jing Zhang, Philip Ogunbona (*Advanced Multimedia Research Lab, University of Wollongong, Australia*)

• **Spatio-Temporal Learning of Basketball Offensive Strategies**
  Ching-Hang Chen, Tyng-Luh Liu (*Institute of Information Science, Academia Sinica, Taiwan*), Yu-Shuen Wang (*National Chiao Tung University, Taiwan*), Hung-Kuo Chu (*National Tsing Hua University, Taiwan*), Nick C. Tang, Hong-Yuan Mark Liao (*Institute of Information Science, Academia Sinica, Taiwan*)

• **Weak Labeled Multi-Label Active Learning for Image Classification**
  Shiquan Zhao, Jian Wu (*Soochow University, China*), Victor S. Sheng (*University of Central Arkansas, USA*), Chen Ye, Pengpeng Zhao, Zhiming Cui (*Soochow University, China*)

• **Probabilistic Semi-Canonical Correlation Analysis**
  Chie Kamada, Asako Kanezaki, Tatsuya Harada (*The University of Tokyo, Japan*)

• **Recognizing Human Activity in Still Images by Integrating Group-Based Contextual Cues**
  Zheng Zhou, Kan Li (*Beijing Institute of Technology, China*), Xiangjian He (*University of Technology, Sydney, Australia*)

• **3D Person Tracking In World Coordinates and Attribute Estimation with PDR**
  Yuki Nagai, Daisuke Kamisaka, Naoya Makibuchi, Jianfeng Xu, Shigeyuki Sakazawa (*KDDI R&D Laboratories, Inc., Japan*)

• **Image Tagging via Cross-Modal Semantic Mapping**
  Zhi-Hong Deng, Hongliang Yu, Yunlun Yang (*Peking University, China*)

• **Predicting Image Memorability by Multi-view Adaptive Regression**
  Houwen Peng (*Chinese Academy of Sciences & Temple University, USA*), Kai Li, Bing Li (*Chinese Academy of Sciences*), Haibin Ling (*Temple University, USA*), Weihua Xiong, Weiming Hu (*Chinese Academy of Sciences*)

• **Spatio-Temporal Triangular-Chain CRF for Activity Recognition**
  Congqi Cao, Yifan Zhang, Hanqing Lu (*National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences*)

• **Query-Adaptive Logo Search using Shape-Aware Descriptors**
  Sreyasee Das Bhatcharjee, Yuan Junsong, Yap-Peng Tan (*Nanyang Technological University, Singapore*), Lingyu Duan (*Peking University, China*)

• **Hyperspectral Image Classification with Convolutional Neural Networks**
  Viktor Slavkovikj, Steven Verstockt, Wesley De Neve, Sofie Van Hoecke, Rik Van de Walle (*Ghent University-iMinds, Belgium*)
• **Online Object Tracking Based on CNN with Metropolis-Hasting Re-Sampling**
  Xiangzheng Zhou, Lei Xie, Peng Zhang, Yanning Zhang (Northwestern Polytechnical University, China)

• **Progressive Shape-Distribution-Encoder for 3D Shape Retrieval**
  Jin Xie, Fan Zhu (New York University Abu Dhabi, UAE), Guoxian Dai (New York University, USA), Yi Fang (New York University Abu Dhabi, UAE)

• **Cross-media Topic Detection with Refined CNN based Image-Dominant Topic Model**
  Zhiyi Wang, Liang Li, Qingming Huang (University of Chinese Academy of Sciences)

• **Human Action Recognition With Trajectory Based Covariance Descriptor In Unconstrained Videos**
  Hanli Wang, Yun Yi, Jun Wu (Tongji University, China)

• **RECfusion: Automatic Video Curation Driven by Visual Content Popularity**
  Alessandro Ortis, Giovanni Maria Farinella (University of Catania, Italy), Valeria D’amico, Luca Addesso, Giovanni Torrisi (Telecom Italia - JOL WAVE, Italy), Sebastiano Battiato (University of Catania, Italy)

• **Gender Classification Using Pyramid Segmentation for Unconstrained Back-facing Video Sequences**
  Hao Tang, Hong Liu, Wei Xiao (Shenzhen Graduate School, Peking University, China)

• **Object Segmentation from Long Video Sequences**
  Bing Luo, Hongliang Li, Tiecheng Song, Chao Huang (University of Electronic Science and Technology of China)

• **Summarization-based Video Caption via Deep Neural Networks**
  Guang Li, Shubo Ma, Yahong Han (Tianjin University, China)

• **Multi-modal & Multi-view & Interactive Benchmark Dataset for Human Action Recognition**
  Ning Xu, Anan Liu, Weizhi Nie (Tianjin University, China), Yongkang Wong (National University of Singapore), Fuwu Li, Yuting Su (Tianjin University, China)

• **A Deep Siamese Network for Scene Detection in Broadcast Videos**
  Lorenzo Baraldi, Costantino Grana, Rita Cucchiara (University of Modena and Reggio Emilia, Italy)

• **Unsupervised Cosegmentation based on Global Graph Matching**
  Takanori Tamanaha, Hideki Nakamaya (Grad. School of IST, The University of Tokyo, Japan)

• **Facial Age Estimation Based on Structured Low-rank Representation**
  Chenjing Yan, Congyan Lang, Songhe Feng (Beijing Jiaotong University, China)

• **Semantic Segmentation based on Stacked Discriminative Autoencoders and Context-Constrained Weakly Supervised Learning**
  Xiwen Yao, Junwei Han, Gong Cheng, Lei Guo (Northwestern Polytechnical University, China)

• **Deep Self-taught Hashing for Image Retrieval**
  Ke Zhou, Yu Liu (Huazhong University of Science and Technology, China), Jingkuan Song (University of Trento, Italy), Linyu Yan (Hubei University of Technology, China), Fuhao Zou (Huazhong University of Science and Technology, China), Fumin Shen (University of Electronic Science and Technology of China)

• **GPU Accelerated Generalised Subclass Discriminant Analysis for Event and Concept Detection in Video**
  Stavros Arestis-Chartampilas, Nikolaos Gkalelis, Vasileios Mezaris (CERTH-ITI, Greece)
• Semi- and Weakly- Supervised Semantic Segmentation with Deep Convolutional Neural Networks
  Yuhang Wang, Jing Liu, Yong Li, Hanqing Lu (Institute of Automation, Chinese Academy of Sciences)

• Learning Pairwise Neural Network Encoder for Depth Image-based 3D Model Retrieval
  Jing Zhu (New York University, USA), Fan Zhu (New York University Abu Dhabi, UAE), Edward K Wong (New York University, USA), Yi Fang (New York University Abu Dhabi, UAE)

• Using the Eyes to "See" the Objects
  Concetto Spampinato, Simone Palazzo, Francesca Murabito, Daniela Giordano (University of Catania, Italy)

• Discriminative Light Unsupervised Learning Network for Image Representation and Classification
  Le Dong, Ling He (Univ. of Electronic Science and Technology of China), Qianni Zhang (Queen Mary Univ. of London, UK)

• Ranking Optimization for Person Re-identification via Similarity and Dissimilarity
  Mang Ye, Chao Liang, Zheng Wang (Wuhan University, China), Qingming Leng (Jiujiang University, China), Jun Chen (Wuhan University, China)

• Leveraging Knowledge-based Inference for Material Classification
  Jie Yu, Sandra Skaff, Liang Peng, Francisco Imai (Canon Innovation Center, USA)

• Emotion Distribution Recognition from Facial Expressions
  Ying Zhou, Hui Xue, Xin Geng (Southeast University, China)

• Exclusive Constrained Discriminative Learning for Weakly-Supervised Semantic Segmentation
  Peng Ying, Jin Liu, Hanqing Lu, Songde Ma (Institute of Automation, Chinese Academy of Sciences)

• Multimedia Event Detection Using Event-Driven Multiple Instance Learning
  Sang Phan, Duy-Dinh Le, Shin'ichi Satoh (National Institute of Informatics, Japan)

• Learning Semantic Correlation of Web Images and Text with Mixture of Local Linear Mappings
  Youtian Du, Kai Yang (Xi'an Jiaotong University, China)

• Learned vs. Hand-Crafted Features for Pedestrian Gender Recognition
  Grigory Antipov, Sid-Ahmed Berrani (Orange Labs, France), Natacha Ruchaud, Jean-Luc Dugelay (Eurecom, France)

• Multi-Level Fusion for Person Re-identification with Incomplete Marks
  Zheng Wang, Ruimin Hu (National Engineering Research Center for Multimedia Software, Computer School of Wuhan Univ., China), Yi Yu (National Institute of Informatics, Japan), Chao Liang, Wenxin Huang (National Engineering Research Center for Multimedia Software, Computer School of Wuhan Univ., China)

• Offloading Guidelines for Augmented Reality Applications on Wearable Devices
  Bowen Shi, Ji Yang, Zhanpeng Huang, Pan Hui (The Hong Kong University of Science and Technology)

• Real-Time Instant Event Detection in Egocentric Videos by Leveraging Sensor-Based Motion Context
  Pei-Yun Hsu, Wen-Feng Cheng, Peng-Ju Hsieh, Yen-Liang Lin, Winston H. Hsu (National Taiwan University)
• **Modeling Temporal Effects in Re-captured Video**
  Philipp Schaber, Sally Dong, Benjamin Guthier, Stephan Kopf, Wolfgang Effelsberg (*University of Mannheim, Germany*)

• **On the Benefit of Synthetic Data for Company Logo Detection**
  Christian Eggert, Anton Winschel, Rainer Lienhart (*University of Augsburg, Germany*)

• **Retrieving Unfamiliar Faces: Towards Understanding Human Performance**
  Xu Zhou, Baoxin Li (*Arizona State University, USA*)

• **Acoustic Scene Classification based on Sound Textures and Events**
  Jiaxing Ye, Takumi Kobayashi, Masahiro Murakawa, Tetsuya Higuchi (*National Institute of Advanced Industrial Science and Technology (AIST), Japan*)

4 - 5.30pm
Location: Auditorium

**Oral Session 4: Multimedia and Vision**
Session Chair: Mohan S Kankanhalli (*National University of Singapore, Singapore*)

• **Dancing with Turks**
  I-Kao Chiang (*University of Pennsylvania, USA*), Ian Spiro (*New York University, USA*), Seungkyu Lee (*Kyunghee University, South Korea*), Alyssa Lees (*New York University, USA*), Jingchen Liu (*The Pennsylvania State University, USA*), Chris Bregler (*New York University, USA*), Yanxi Liu (*The Pennsylvania State University, USA*)

• **Single Image Spectral Reconstruction for Multimedia Applications**
  Antonio Robles-Kelly (*NICTA, Australia*)

• **SkyStitch: a Cooperative Multi-UAV-based Real-time Video Surveillance System with Stitching**
  Xiangyun Meng, Wei Wang, Ben Leong (*National University of Singapore*)

• **Eye of the Dragon: Exploring Discriminatively Minimalist Sketch-based Abstractions for Object Categories**
  Ravi Kiran Sarvadevabhatla, Venkatesh Babu R (*Indian Institute of Science, India*)

4 - 5.30pm
Location: P6

**Oral Session 5: Multimedia Art, Entertainment and Culture**
Session Chair: James Wang (*Pennsylvania State University, USA*)

• **A Distributed Theatre Experiment with Shakespeare**
• **Image Profiling for History Events on the Fly**
  Jia Chen (Shanghai Jiao Tong University, China), Qin Jin (Renmin University of China), Yong Yu (Shanghai Jiao Tong University, China), Alexander G. Hauptmann (Carneige Mellon University, USA)

• **Modeling Perspective Effects in Photographic Composition**
  Zihan Zhou, Siqiong He, Jia Li, James Z Wang (The Pennsylvania State University, USA)

• **Who’s Afraid of Itten: Using the Art Theory of Color Combination to Analyze Emotions in Abstract Paintings**
  Andreza Sartori (University of Trento & Telecom Italia, Italy), Dubravko Culibrk (University of Trento, Italy & University of Novi Sad, Serbia), Yan Yan, Nicu Sebe (University of Trento, Italy)

4 - 5.30pm
Location: P7

**Oral Session 6: Telepresence, Virtual, and Augmented Reality**
Chair: Klara Nahrstedt (UIUC, USA)

• **Image2Scene: Transforming Style of 3D Room**
  Xiaowu Chen, Jianwei Li (Beihang University, China), Qing Li (Beijing Union University, China), Bo Gao, Dongqing Zou, Qinping Zhao (Beihang University, China)

• **Gradient-based 2D-to-3D Conversion for Soccer Videos**
  Kiana Calagari (Simon Fraser University, Canada), Mohamed Elgharib (Qatar Computing Research Institute, HBKU), Piotr Didyk (Saarland University, Germany), Alexandre Kaspar, Wojciech Matusik (Massachusetts Institute of Technology, USA), Mohamed Hefeeda (Qatar Computing Research Institute, HBKU)

• **Ubii: Towards Seamless Interaction between Digital and Physical Worlds**
  Zhanpeng Huang, Weikai Li, Pan Hui (Hong Kong University of Science and Technology, China)

• **Smart Beholder: An Open-Source Smart Lens for Mobile Photography**
  Chun-Ying Huang (National Taiwan Ocean University), Chih-Fan Hsu, Tsung-Han Tsai (Academia Sinica, Taiwan), Ching-Ling Fan, Cheng-Hsin Hsu (National Tsing Hua University, Taiwan), Kuan-Ta Chen (Academia Sinica, Taiwan)

4 - 5.30pm
Location: P8

**Oral Session 7: Actions and Events**
Session Chair: Nicu Sebe (University of Trento, Italy)

• **Coherent Motion Detection with Collective Density Clustering**
  Yunpeng Wu, Yangdong Ye, Chenyang Zhao (Zhengzhou University, China)

• **Temporal Localization of Fine-Grained Actions in Videos by Domain Transfer from Web Images**
  Chen Sun (University of Southern California, USA), Sanketh Shetty, Rahul Sukthankar (Google, Inc., USA), Ram Nevatia (University of Southern California, USA)
• Temporal Matching Kernel with Explicit Feature Maps

Sébastien Poullot (JFLI (CNRS), National Institute of Informatics, Japan), Shunsuke Tsukatani (University of Tokyo, National Institute of Informatics, Japan), Anh Phuong Nguyen (MMLab - University of Information Technology, Vietnam), Hervé Jégou (Inria, France), Shin’ichi Satoh (National Institute of Informatics, Japan)

• Efficient Activity Retrieval through Semantic Graph Queries

Gregory Castanon, Yuting Chen, Ziming Zhang, Venkatesh Saligrama (Boston University, USA)
THURSDAY 29 October – Conference Day 3

9 – 10.30am
Location: Auditorium

**Keynote: Vision-enhanced Immersive Interaction and Remote Collaboration with Large Touch Displays**
Speaker: Zhengyou Zhang (Microsoft Research)
Chair: Xiaofang Zhou (The University of Queensland, Australia)

11am - 4pm
Location: P6 – P11 Foyer

**Full/TOMM Paper Poster Session 3**
Session Chair: Xue Li (The University of Queensland, Australia)

- **Analyzing Free-standing Conversational Groups: A Multimodal Approach**
  Xavier Alameda-Pineda, Yan Yan (University of Trento, Italy), Elisa Ricci, Oswald Lanz (Fondazione Bruno Kessler, Italy), Nicu Sebe (University of Trento, Italy)

- **An Affordable Solution for Binocular Eye Tracking and Calibration in Head-mounted Displays**
  Michael Stengel, Steve Grogorick (TU Braunschweig, Germany), Elmar Eisemann (TU Delft, The Netherlands), Martin Eisemann (TH Koeln, Germany), Marcus A. Magnor (TU Braunschweig, Germany)

- **SINGA: Putting Deep Learning in the Hands of Multimedia Users**
  Wei Wang (National University of Singapore), Gang Chen (Zhejiang university, China), Anh Tien Tuan Dinh, Jinyang Gao, Beng Chin Ooi, Kian-Lee Tan, Sheng Wang (National University of Singapore)

- **Weakly-Shared Deep Transfer Networks for Heterogeneous-Domain Knowledge Propagation**
  Xiangbo Shu (Nanjing University of Science and Technolog, China), Guo-Jun Qi (University of Central Florida, USA), Jinhui Tang (Nanjing University of Science and Technology, China), Jingdong Wang (Microsoft Research, China)

- **Fast and Accurate Content-based Semantic Search in 100M Internet Videos**
  Lu Jiang, Shou-Yu (Carnegie Mellon University, USA), Deyu Meng (Xi’an Jiaotong University, China), Yi Yang (University of Technology Sydney, Australia), Teruko Mitamura, Alexander G Hauptmann (Carnegie Mellon University, USA)

- **Visual Coding in a Semantic Hierarchy**
  Yang Yang (University of Electronic Science and Technology of China), Hanwang Zhang (National University of Singapore), Mingxing Zhang, Fumin Shen (University of Electronic Science and Technology of China), Xuelong Li (Chinese Academy of Sciences)

- **Deep Compositional Cross-modal Learning to Rank via Local-Global Alignment**
  Xinyang Jiang, Fei Wu, Xi Li, Zhou Zhao, Weiming Lu, Siliang Tang, Yueting Zhuang (Zhejiang University, China)
• Effective Multi-Query Expansions: Robust Landmark Retrieval
  Yang Wang, Xuemin Lin (The University of New South Wales, Australia), Lin Wu (The University of Adelaide, Australia), Wenjie Zhang (The University of New South Wales, Australia)

• What are Popular: Exploring Twitter Features for Event Detection, Tracking and Visualization
  Hongyun Cai (The University of Queensland, Australia), Yang Yang (University of Electronic Science and Technology of China), Xuefei Li, Zi Huang (The University of Queensland, Australia)

• Cross-Domain Collaborative Learning in Social Multimedia
  Shengsheng Qian, Tianzhu Zhang (National Lab of Pattern Recognition, Institute of Automation, CAS, China), Richang Hong (School of Computer and Information, Hefei University of Technology, China), Changsheng Xu (National Lab of Pattern Recognition, Institute of Automation, CAS, China)

• Learning Socially Embedded Visual Representation from Scratch
  Shaowei Liu, Peng Cui, Wenwu Zhu, Shiqiang Yang (Tsinghua University, China)

• Spatial-aware Multimodal Location Estimation for Social Images
  Jiewei Cao, Zi Huang (The University of Queensland, Australia), Yang Yang (University of Electronic Science and Technology of China)

• Collaborative Fashion Recommendation: A Functional Tensor Factorization Approach
  Yang Hu, Xi Yi, Larry S. Davis (University of Maryland, USA)

• Predicting and Understanding Urban Perception with Convolutional Neural Networks
  Lorenzo Porzi (Fondazione Bruno Kessler, University of Perugia, Italy), Samuel Rota Bulò, Bruno Lepri (Fondazione Bruno Kessler, Italy), Elisa Ricci (Fondazione Bruno Kessler, University of Perugia, Italy)

• A Multimodal Predictive Model of Successful Debaters or How I Learned to Sway Votes
  Maarten Brilman (University of Twente, The Netherlands), Stefan Scherer (USC Institute for Creative Technologies, USA)

• Visual Affect Around the World: A Large-scale Multilingual Visual Sentiment Ontology
  Brendan Jou, Tao Chen (Columbia University, USA), Nikolaos Pappas (Idiap Research Institute, Switzerland), Miriam Redi (Yahoo Labs, UK), Mercan Topkara (JW Player, USA), Shih-Fu Chang (Columbia University, USA)

• Dancing with Turks
  I-Kao Chiang (University of Pennsylvania, USA), Ian Spiro (New York University, USA), Seungkyu Lee (KyungHee University, South Korea), Alyssa Lees (New York University, USA), Jingchen Liu (The Pennsylvania State University, USA), Chris Bregler (New York University, USA), Yanxi Liu (The Pennsylvania State University, USA)

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• Eye of the Dragon: Exploring Discriminatively Minimalist Sketch-based Abstractions for Object Categories
  Ravi Kiran Sarvadevabhatla, Venkatesh Babu R (Indian Institute of Science, India)
• A Distributed Theatre Experiment with Shakespeare
  Douglas L Williams, Ian C Kegel (BT, UK), Marian Ursu (University of York, UK), Pablo Cesar, Jack Jansen (Centrum Wiskunde & Informatica, The Netherlands), Erik Geelhoed (Falmouth University, UK), Andras Horti (Joanneum Research, Austria), Michael Frantzis (Goldsmiths, University of London, UK), Bill Scott (Miracle Theatre Company, UK)

• Image Profiling for History Events on the Fly
  Jia Chen (Shanghai Jiao Tong University, China), Qin Jin (Renmin University of China), Yong Yu (Shanghai Jiao Tong University, China), Alexander G. Hauptmann (Carneige Mellon University, USA)

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  Sébastien Poullot (JFLI (CNRS), National Institute of Informatics, Japan), Shunsuke Tsukatani (University of Tokyo, National Institute of Informatics, Japan), Anh Phuong Nguyen (MMLab - University of Information Technology, Vietnam), Hervé Jégou (Inria, France), Shin'Ichi Satoh (National Institute of Informatics, Japan)

• Efficient Activity Retrieval through Semantic Graph Queries
  Gregory Castanon, Yuting Chen, Ziming Zhang, Venkatesh Saligrama (Boston University, USA)
• **Video Killed The Data Store: Extending the n-Dimensional Display Interface for Full Screen Video**
Charles D Estes, Ketan Mayer-Patel *(University of North Carolina at Chapel Hill, USA)*

• **Dependency-Aware Unequal Error Protection for Layered Video Coding**
Mohammad Reza Zakerinasab, Mea Wang *(University of Calgary, Canada)*

• **HiFi: A Hierarchical Filtering Algorithm for Caching of Online Video**
Shahid Akhtar, Andre Beck *(Alcatel-Lucent, USA)*, Ivica Rimac *(Alcatel-Lucent, Germany)*

• **Exploring QoE for Power Efficiency: A Field Study on Mobile Videos with LCD Displays**
Zhisheng Yan, Qian Liu *(State University of New York at Buffalo, USA)*, Tong Zhang *(Rensselaer Polytechnic Institute, USA)*, Chang Wen Chen *(State University of New York at Buffalo, USA)*

• **Automatic Image Dataset Construction from Click-through Logs Using Deep Neural Network**
Yalong Bai *(Harbin Institute of Technology, China)*, Kuiyuan Yang *(Microsoft Research, China)*, Wei Yu *(Harbin Institute of Technology, China)*, Chang Xu *(Nankai University, China)*, Wei-Ying Ma *(Microsoft Research, China)*, Tiejun Zhao *(Harbin Institute of Technology, China)*

• **DeepFont: Identify Your Font from An Image**

• **Modeling Spatial-Temporal Clues in a Hybrid Deep Learning Framework for Video Classification**
Zuxuan Wu, Xi Wang, Yu-Gang Jiang, Hao Ye, Xiangyang Xue *(Fudan University, China)*

• **EventNet: A Large Scale Structured Concept Library for Complex Event Detection in Video**
Guangnan Ye, Yitong Li, Hongliang Xu, Dong Liu, Shih-Fu Chang *(Columbia University, USA)*

• **Modelling Human Factors in Perceptual Multimedia Quality: On The Role of Personality and Culture**
Michael James Scott *(Brunel University London, UK)*, Sharath Chandra Guntuku, Yang Huan, Weisi Lin *(Nanyang Technological University, Singapore)*, Gheorghita Ghinea *(Brunel University London, UK)*

• **Biologically Inspired Media Quality Modeling**
Luming Zhang, Meng Wang *(Hefei University of Technology, China)*, LiqiangNie *(National University of Singapore)*, Richang Hong *(Hefei University of Technology, China)*, Roger Zimmermann *(National University of Singapore)*, Yingjie Xia *(Zhejiang University, China)*

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  Kai Ruhl (TU Braunschweig, Germany), Martin Eisemann (TH Koeln, Germany), Anna Hilsmann, Peter Eisert (HHI Fraunhofer, Germany), Marcus Magnor (TU Braunschweig, Germany)

- **CelebrityNet: A Social Network Constructed from Large Scale Online Celebrity Images**  
  Li-Jia Li, David A. Shamma, Xiangnan Kong, Sina Jafarpour, Roelof Van Zwol, Xuanhui Wang (Yahoo! Research, USA)
• **Similarity Search Over The Cloud Based On Dimensions Value Cardinalities**  
  Stefanos Antaris, Dimitrios Rafailidis (*Aristotle University of Thessaloniki, Greece*)

• **Double Verification Secret Sharing Mechanism Based on Adaptive Pixel Pair Matching**  
  Pei-Yu Lin (*Yuan Ze University, Taiwan*)

• **Wireless Multicast for Zoomable Video Streaming**  
  Hui Wang, Mun Choon Chan, Wei Tsang Ooi (*National University of Singapore*)

• **QoE-Driven Rate Adaptation Heuristic for Fair Adaptive Video Streaming**  
  Stefano Petrangeli (*University in Ghent, Belgium*), Jeroen Famaey (*University in Antwerp, Belgium*), Maxim Claes (*University in Ghent, Belgium*), Steven Latré (*University in Antwerp, Belgium*), Filip De Turck (*University in Ghent, Belgium*)

• **Multi-Camera Coordination and Control in Surveillance Systems: A Survey**  
  Prabhu Natarajan (*National University of Singapore*), Pradeep K. Atrey (*State University of New York, USA*), Mohan Kankanhalli (*National University of Singapore*)

• **Image Enhancement in Encrypted Domain over Cloud**  
  Ankita Lathey (*University of Winnipeg, Canada*), Pradeep K. Atrey (*University of Winnipeg, Canada and State University of New York, USA*)

• **Opinion Question Answering by Sentiment Clip Localization**  
  Lei Pang, Chong-wah Ngo (*City University of Hong Kong*)

• **Improving Concept-Based Image Retrieval with Training Weights Computed from Tags**  
  Vasileios Papapanagiotou, Christos Diou, Anastasios Delopoulos (*Aristotle University of Thessaloniki, Greece*)

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11am – 12.30pm  
Location: P6

**Oral Session 8: Video Systems**  
Session Chair: Wu-Chi Feng (*Portland State University, USA*)

• **Video Killed The Data Store: Extending the n-Dimensional Display Interface for Full Screen Video**  
  Charles D Estes, Ketan Mayer-Patel (*University of North Carolina at Chapel Hill, USA*)

• **Dependency-Aware Unequal Error Protection for Layered Video Coding**  
  Mohammad Reza Zakerinasab, Mea Wang (*University of Calgary, Canada*)

• **HiFi: A Hierarchical Filtering Algorithm for Caching of Online Video**  
  Shahid Akhtar, Andre Beck, Ivica Rimac (*Alcatel-Lucent, Germany*)

• **Exploring QoE for Power Efficiency: A Field Study on Mobile Videos with LCD Displays**  
  Zhisheng Yan, Qian Liu (*State University of New York at Buffalo, USA*), Tong Zhang (*Rensselaer Polytechnic Institute, USA*), Chang Wen Chen (*State University of New York at Buffalo, USA*)
11am – 12.30pm
Location: P7

**Oral Session 9: Deep Learning and Multimedia**
Session Chair: Cees G M Snoek (University of Amsterdam & Qualcomm Research Netherlands, The Netherlands)

- **Automatic Image Dataset Construction from Click-through Logs Using Deep Neural Network**
  Yalong Bai (Harbin Institute of Technology, China), Kuiyuan Yang (Microsoft Research, China), Wei Yu (Harbin Institute of Technology, China), Chang Xu (Nankai University, China), Wei-Ying Ma (Microsoft Research, China), Tiejun Zhao (Harbin Institute of Technology, China)

- **DeepFont: Identify Your Font from An Image**
  Zhangyang Wang (UIUC, USA), Jianchao Yang (Snapchat Inc, USA), Hailin Jin, Eli Shechtman (Adobe Research, USA), Aseem Agarwala (Google Inc, USA), Jonathan Brandt (Adobe Research, USA), Thomas S. Huang (UIUC, USA)

- **Modeling Spatial-Temporal Clues in a Hybrid Deep Learning Framework for Video Classification**
  Zuxuan Wu, Xi Wang, Yu-Gang Jiang, Hao Ye, Xiangyang Xue (Fudan University, China)

- **EventNet: A Large Scale Structured Concept Library for Complex Event Detection in Video**
  Guangnan Ye, Yitong Li, Hongliang Xu, Dong Liu, Shih-Fu Chang (Columbia University, USA)

11am – 12.30pm
Location: P8

**Oral Session 10: Multimedia Quality Perception**
Session Chair: Bart Thomee (Yahoo Research, USA)

- **Modelling Human Factors in Perceptual Multimedia Quality: On The Role of Personality and Culture**
  Michael James Scott (Brunel University London, UK), Sharath Chandra Guntuku, Yang Huan, Weisi Lin (Nanyang Technological University, Singapore), Gheorghita Ghinea (Brunel University London, UK)

- **Biologically Inspired Media Quality Modeling**
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- **Towards Solving the Bottleneck of Pitch-based Singing Voice Separation**
  Bilei Zhu, Wei Li, Linwei Li (Fudan University, China)
11am – 12.30pm
Location: P9

Art Exhibit Presentations
Chairs: Ann Morrison (Aalborg University, Denmark) Stephen Viller (The University of Queensland, Australia)

Using Handmade Controllers for Interactive Projection Mapping
Alinta K. Krauth (Griffith University, Australia)

3D Printing and Camera Mapping: Dialectic of Virtual and Reality
He-Lin Luo, Yi-Ping Hung (National Taiwan University) I-Chun Chen (Taipei National University of the Arts, Taiwan)

Drag A Star – the Social Media in Outer Space
James She (Hong Kong University of Science & Technology) Cameron Ng (UM Network, Hong Kong) Desmond Leung (Desmond Leung Media Arts, Hong Kong)

Disturbed System: Recreating Sculptor’s Experience of Their Medium With Haptics and Generated Sound
Oksana Krzyhanivska, Simon Fay, Jeffrey E. Boyd (University of Calgary, Canada)

The Real Time Rolling Shutter
David S. Monaghan, Noel E. O’Connor (Dublin City University, Ireland) Anne Cleary, Denis Connolly (Independent artists, France)

11am - 4pm
Location: P10 – P11

Art Exhibit

12.30 - 2pm
Location: Auditorium & Foyer

Award Ceremony & SIGMM Business Lunch

2 - 3.30pm
Location: Auditorium

Panel: Opportunities and Challenges of Industry-Academic Collaborations in Multimedia Research— Industry Trends and Perspectives
Panelists: Shih-Fu Chang (Columbia University, USA) Matt Cooper (FXPal, USA) Denver Dash (MagicLeam, USA) Funda Kivran-Swaine (Facebook, USA) Jia Li (Snapchat, USA) David A. Shamma (Yahoo Labs, USA)

Abstract: This ACM MM panel aims to redefine the state of research between Academia and Industry.
2 - 3.30pm
Location: P6

**Oral Session 11: Multimedia Networking**
Session Chair: Ketan Mayer-Patel (*University of North Carolina, USA*)

- **Enhancing the Quality of Interactive Multimedia Services by Proactive Monitoring and Failure Prediction**
  Mohammed Shatnawi (*Simon Fraser University, Canada*), Mohamed Hefeeda (*Qatar Computing Research Institute, Hamad Bin Khalifa University*)

- **Distributed Optimal Datacenter Bandwidth Allocation for Dynamic Adaptive Video Streaming**
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2 - 3.30pm
Location: P7

**Oral Session 12: Data Imperfectness for Multimedia**
Session Chair: Meng Wang (*Hefei Institute of Technology, China*)

- **Multi-View Visual Recognition of Imperfect Testing Data**
  Qilin Zhang, Gang Hua (*Stevens Institute of Technology, USA*)

- **If You Can’t Beat Them, Join Them: Learning with Noisy Data**
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Oral Session 13: Multimedia Experiences and Expectations
Session Chair: Dick C A Bulterman (FXPAL, USA)

- **Multi-sensor Self-Quantification of Presentations**
  Tian Gan (National University of Singapore), Yongkang Wong (Interactive & Digital Media Institute, Singapore), Bappaditya Mandal, Vijay Chandrasekhar (Institute for Infocomm Research, Singapore), Mohan S. Kankanhalli (National University of Singapore)

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4 – 5.30pm
Location: P9

**MM-15 Exchange Meeting**
Workshops – Friday 30 October

Multimedia COMMONS 2015
Location: Auditorium
[Program to be announced]
Immersive Media Experiences – ImmersiveME 2015
Location: P6

9h00  Welcome Address

9h15  Session 1 - Audiovisual Immersion and Enabling Technologies
      Session Chair: Rene Kaiser, Joanneum Research, Graz, Austria

9h15  Content Adaptive Representations of Omnidirectional Videos for Cinematic Virtual Reality
      Matt Yu, Haricharan Lakshman, Bernd Girod

9h40  Pan360: INS Assisted 360-Degree Panorama

10h05 Compressed Domain Video Processing for Tile Based Panoramic Streaming using SHVC
       Yago Sanchez de La Fuente, Robert Skupin, Thomas Schierl

10h30  Morning Tea

11h00  Keynote Talk
       Immersive Shared Experiences
       Pablo Cesar, CWI: Centrum Wiskunde & Informatica, The Netherlands
       Session Chair: Teresa Chambel, LaSIGE, F. Ciências, Univ. de Lisboa, Portugal

12h30 Lunch Break

13h30  Session 2 - Collaborative and Participatory Scenarios in Augmented Reality
       Session Chair: Pablo Cesar, CWI, The Netherlands

13h30  Enabling Distributed Theatre Performances through Multi-Camera Telepresence - Capturing
       System Behaviour in a Script-Based Approach
       Rene Kaiser, Marian F. Ursu, Manolis Falelakis, Andras Horti

13h55  3D Collaboration Method over HoloLens and Skype End Points
       Austin Lee, Henry Chen, Mark Swift, John Tang

14h10  Session 3 - Human Aspects in Immersive Media Experiences
       Session Chair: Teresa Chambel, LaSIGE, F. Ciências, Univ. de Lisboa, Portugal

14h10  Immersive Interactive Technologies in Digital Humanities: A Review and Basic Concepts
       Artur Lugmayr, Marko Teras

14h35  Measuring Audience Responses of Video Advertisements Using Phisiological Sensors
       Chen Wang, Pablo Cesar

15h00  Afternoon Tea

15h30  Demos & Discussion - Immersive Media: experiences & perspectives

16h45  Wrap Up
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Paper</th>
<th>Talk/Paper title/Notes</th>
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</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Welcome</td>
<td>Welcome and intro from the chairs</td>
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<tr>
<td>09:30</td>
<td>Keynote Address</td>
<td>Words and Pictures - Crowdsource Discovery beyond Image Semantics</td>
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<tr>
<td></td>
<td></td>
<td>Prof. Shih-Fu Chang (Columbia University)</td>
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<tr>
<td>10:30</td>
<td>Coffee break</td>
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<tr>
<td></td>
<td>Oral Session</td>
<td>Eye tracker in the wild: Studying the delta between what is said and measured in a crowdsourcing experiment</td>
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<tr>
<td>11:00</td>
<td>Paper08</td>
<td>Pierre Lebreton* (Technische Universität Berlin); Isabelle Hupont (UPMC - Sorbonne Universities); Toni Mäki (VTT Technical Research Centre of Finland); Evangelos Skodras (University of Patras); Matthias Hirth (University of Wuerzburg)</td>
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<tr>
<td></td>
<td></td>
<td>Bridging the Utilitarian-Hedonic Divide in Crowdsourcing Applications</td>
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<td>Mark Melenhorst* (Delft University of Technology); Jasminko Novak (European Institute for Participatory Media); Isabel Micheel (European Institute for Participatory Media); Martha Larson (Delft University of Technology); Martin Boeckle (European Institute for Participatory Media)</td>
</tr>
<tr>
<td>11:25</td>
<td>Paper06</td>
<td>Do Scale-Design and Training Matter for Video QoE Assessments through Crowdsourcing?</td>
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<td>Bruno Gardlo* (The Telecommunications Research Center Vienna); Sebastian Egger (AIT); Tobias Hossfeld (University Essen-Duisburg)</td>
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<tr>
<td>11:50</td>
<td>Paper09</td>
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<tr>
<td>12:15</td>
<td>Lunch</td>
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<tr>
<td>14:00</td>
<td>Poster Madness Session</td>
<td>- 3 minutes per paper</td>
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<tr>
<td>14:15</td>
<td>Poster presentations</td>
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<tr>
<td></td>
<td></td>
<td>Generation of a video summary on a news topic based on SNS responses to news stories</td>
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<tr>
<td></td>
<td>Paper01</td>
<td>Kosuke Kato (Nagoya University); Ichiro Ide (Nagoya University); Daisuke Deguchi (Nagoya University); Hiroshi Murase (Nagoya University)</td>
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<td>Why Design Matters - Crowdsourcing of Complex Tasks</td>
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<td>Paper02</td>
<td>Baar Winther (Simula); Lilian Calvet (Simula); Carsten Griwodz (Simula); Pål Halvorsen (Simula); Michael Riegler* (Simula Research Laboratory)</td>
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<tr>
<td></td>
<td></td>
<td>When the crowd challenges the lab: lessons learnt from subjective studies on image aesthetic appeal</td>
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<tr>
<td></td>
<td>Paper10</td>
<td>Judith Redi* (Delft University of Technology); Ernestas Siahaan (Delft University of Technology); Pavel Korshunov (EPFL); Julian Habigt (Technical University Munich); Tobias Hossfeld (University Essen-Duisburg)</td>
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<td>Impact of tone-mapping algorithms on subjective and objective face recognition in HDR images</td>
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<td>Paper12</td>
<td>Pavel Korshunov* (EPFL); Marco Bernardo (UBI); Touradj Ebrahimi (EPFL); Antonio Pinheiro (UBI)</td>
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<tr>
<td>15:30</td>
<td>Coffee Break</td>
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<tr>
<td>16:00</td>
<td>CrowdKeynote!</td>
<td>(see crowdmm.org/crowdkeynote/ to learn how to contribute)</td>
</tr>
<tr>
<td>17:00</td>
<td>Discussion and Conclusion session</td>
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</tr>
</tbody>
</table>
Session 1

- 09:00 - 09:10 Opening (10 minutes)
- 09:10 - 09:50 **Keynote Speaker: Lexing Xie** "Can a video be promoted? a generative model for social media popularity"
- 09:50 - 10:30 **Keynote Speaker: Alberto Del Bimbo** "Natural Interaction Metaphors for Personalized Multimedia Museum Experiences"
- 10:30 - 11:00 Coffee break

Session 2

- 11:00 - 11:40 **Keynote Speaker: Ajay Divakaran** "Human Social Interaction Sensing and Modeling"
- 11:40 - 12:20 **Keynote Speaker: Vivek Singh** "Sensing and Shaping Human Behavior using Multimodal Signals"
- 12:20 - 13:20 Lunch Break

Session 3

- 13:20 - 14:00 **Keynote Speaker: Mohan Kankanhalli** "Social Interactions and Presentation Analytics"
- 14:00 - 14:20 Workshop paper: Wei-Ta Chu "Event Detection and Highlight Detection of Broadcasted Game Videos"
- 14:20 - 14:40 Workshop paper: Muhammad Khan "Expressive Multimedia: Bringing Action to Physical World by Dancing-Tablet"
- 14:40 - 15:00 Workshop paper: Mukesh Saini "Multimedia Fatigue Detection for Adaptive Infotainment User Interface"
- 15:00 - 15:30 Coffee break

Session 4

- 15:30 - 15:50 Workshop paper: Ognjen Arandjelovic "Highly Accurate and Fully Automatic Head Pose Estimation from a Low Quality Consumer-Level RGB-D Sensor"
- 15:50 - 16:10 Workshop paper: Sheetal Takale "How Flickr Helps to Know the Place: Visual and Textual Summarization of Geo-location"
- 16:10 - 17:00 Demo Session and Panel Discussion
## Affect and Sentiment in Multimedia - ASM 2015

**Location:** P9

<table>
<thead>
<tr>
<th>Time</th>
<th>Title - authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-11:00</td>
<td>Opening session: - chair: Mohammad Soleymani (University of Geneva)</td>
</tr>
<tr>
<td>9:00-9:50</td>
<td>Keynote 1: Blending Users, Content, and Emotions for Movie Recommendations, Shlomo Berkovsky (CSIRO)</td>
</tr>
<tr>
<td>9:50-10:30</td>
<td>Oral session 1: Audio analysis</td>
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<tr>
<td>9:50-10:10</td>
<td>Learning combinations of multiple feature representations for Music Emotion Prediction, Jens Madsen (DTU); Bjørn Jensen (DTU); Jan Larsen (DTU)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Twitter: A New Online Source of Automatically Tagged Data for Conversational Speech Emotion Recognition, Christopher Hines (UNSW); Julien Eppe (UNSW); Vidhyasaharan Sethu (UNSW)</td>
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<tr>
<td>10:30-11:00</td>
<td>Coffee break</td>
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<tr>
<td>11:00-12:20</td>
<td>Oral session 2: Content Analysis - chair: Yu-Gang Jiang (Fudan University)</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>Affect recognition in a realistic movie dataset using a hierarchical approach, Diana Affi (Univ. Applied Sci.); Joël Dumoulin (Univ. Applied Sci.); Marco Bertini (Univ. Florence); Elena Mugellini (Univ. Applied Sci.); Omar Abou Khaled (Univ. Applied Sci.); Alberto Del Bimbo (University of Florence)</td>
</tr>
<tr>
<td>11:40-12:00</td>
<td>Aesthetic Photo Enhancement using Machine Learning and Case-Based Reasoning, Joachim Folz (DFKI); Christian Schulze (DFKI); Damian Borth (DFKI); Andrea Dengel (DFKI)</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>Prediction of User Ratings of Oral Presentations using Label Relations, Toshihiko Yamasaki (Univ. Tokyo); Ryosuke Furuta (Univ. Tokyo); Yusuke Fukushima (Univ. Tokyo); Litian Sun (Univ. Tokyo); Kiyoharu Aizawa (Univ. Tokyo); Danushka Bollegala (Univ. Liverpool)</td>
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<tr>
<td>12:20-13:50</td>
<td>Lunch break</td>
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<tr>
<td>13:50-14:40</td>
<td>Keynote 2: Nicole Nelson - chair: Yu-Gang Jiang (Fudan University)</td>
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<tr>
<td>14:40-15:50</td>
<td>Oral session 3: Applications - chair: Yu-Gang Jiang (Fudan University)</td>
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<tr>
<td>14:40-15:00</td>
<td>Continuous Arousal Self-assessments Validation Using Real-time Physiological Responses, Ting Li (Technicolor); Yoann Baveye (Technicolor &amp; Ecole Centrale de Lyon); Christel Chamaret (Technicolor); Emmanuel Dellandréa (Ecole Centrale de Lyon); Liming Chen (Ecole Centrale de Lyon)</td>
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<td>15:00-15:30</td>
<td>Coffee break</td>
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<tr>
<td>15:30-15:50</td>
<td>An Interactive System based on Yes-No Questions for Affective Image Retrieval, Saemi CHOI (Univ. Tokyo); Toshihiko Yamasaki (Univ. Tokyo); Kiyoharu Aizawa (Univ. Tokyo)</td>
</tr>
<tr>
<td>15:50-16:30</td>
<td>Oral session 4: Sentiment analysis - chair: Shih-Fu Chang (Columbia University)</td>
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<tr>
<td>15:50-16:10</td>
<td>What makes a Beautiful Landscape beautiful: Adjective Noun Pairs Attention by Eye-Tracking and Gaze Analysis, Syed Saqib Bukhari (DFKI); Damian Borth, (DFKI); Mohammad Al Naser (DFKI); Andreas Dengel (DFKI); Saleh Mozafari (DFKI)</td>
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<td>16:10-16:30</td>
<td>Diving Deep into Sentiment: Understanding Fine-tuned CNNs for Visual Sentiment Prediction, Victor Campos (UPC); Amaia Salvador (UPC); Brendan Jou (Columbia University); Xavier Giró (UPC)</td>
</tr>
<tr>
<td>16:30-17:00</td>
<td>Panel: Multimedia Sentiment Analysis - what, why and who? - moderator: Mohammad Soleymani</td>
</tr>
</tbody>
</table>
**Speech, Language and Audio in Multimedia - SLAM'15**

**Location:** P10

**9:00**

**Workshop introduction**

**9:15 - 10:15**

**Keynote**

David Dean, Queensland University of Technology
SAIVT-BNEWS: An Australian broadcast news video dataset of entity extraction, and more

**10:15 - 10:45**

**Coffee break**

**10:45 - 12:45**

**Morning Session**

10:45  Predicting music popularity patterns based on musical complexity and early stage popularity  
*Junghyuk Lee and Jong-Seok Lee (Yonsei University, Korea)*

11:15  SpeakerLDA: Discovering Topics in Transcribed Multi-Speaker Audio Contents  
*Damiano Spina, Johanne R. Trippas, Lawrence Cavedon and Mark Sanderson (RMIT University, Australia)*

11:45  Acoustic adaptation in cross database audio visual SHMM training for phonetic spoken term detection  
*Shahram Kalantari, David Dean, Sridha Sridharan, Houman Ghaemmaghami and Clinton Fookes (QUT, Australia)*

12:15  Evaluation Data, Benchmarks, and Activities for Cascaded Speech Recognition and Extraction of 35 Entities: Content Capturing, Segmentation, and Structuring of Verbal Clinical Handover  
*Liyuan Zhou, Hanna Suominen and Leif Hanlen (National ICT Australia, Australia)*

**Poster**

Score Propagation based on Similarity Shot Graph for Improving Visual Object Retrieval  
*Juan Manuel Barrios and Jose M. Saavedra (ORAND Chile S.A., Chile)*

**12:45 - 14:00**

**Lunch break**

**14:00 - 16:00**

**Hyperlinking session: Vision meets speech and language**

14:00  Convenient Discovery of Archived Video Using Audiovisual Hyperlinking  
*Roeland Ordelman (Univ. of Twente & Netherlands Institute for Sound and Vision) Robin Aly (Univ. of Twente, The Netherlands)*
\*Maria Eskevich, Benoît Huet (EURECOM, France) and Gareth Jones (Dublin City University, Ireland)*

14:30  Audio Information for Hyperlinking of TV content  
*Petra Galuščáková and Pavel Pecina (Univerzita Karlova v Praze, Czech Republic)*

15:00  Hierarchical topic models for language-based video hyperlinking  
*Anca-Roxana Simon, Pacale Sébillot (INSA Rennes, IRISA & Inria Rennes, France) Guillaume Gravier, Rémi Bois (CNRS, IRISA & Inria Rennes, France) Emmanuel Morin (Univ. Nantes, LINA, France) and Sien Moens (KU Leuven, Belgium)*

15:30  Exploring Video Hyperlinking in Broadcast Media  
*Maria Eskevich, Quoc-Minh Bui, Hoang-An and Benoît Huet (EURECOM, France)*

**16:00 - 17:00**

**Round table discussion**
Human-centred Event Understanding from Multimedia - HuEvent 2015
Location: P11

**Keynote** - Cees Snoek - Recognizing events in videos without examples

Abstract: In this talk I will present recent progress on recognizing events in videos, without the need for examples. The key to event recognition in such a challenging setting is to have a lingual video representation. Three lingual representations for zero-example event recognition will be highlighted, covering concept, tag and sentence embeddings.

**Workshop Papers**

- Tingting Yao, Zhiyong Wang, Zhao Xie, Jun Gao and David Dagan Feng. Discovering Commonness and Specificness for Human Action Recognition
- Maia Zaharieva and Michael Riegler. Media Synchronization and Sub-Event Detection in Multi-User Image Collection
- Konstantinos Apostolidis and Vasileios Mezaris. Using Photo Similarity and Weighted Graphs for the Temporal Synchronization of Event-Centered Multi-User Photo Collections