IEEE 2018 (1ˢᵗ) International Conference

On

Multimedia Information Processing and Retrieval

(IEEE MIPR 2018)

April 10-12, 2018. Miami, Florida, USA

Welcome to MIPR 2018

Pullman Airport Hotel

5800 Blue Lagoon Drive

Miami, Florida 33126

305-264-4888

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Preface

Welcome to the 1st IEEE International Conference on Multimedia Information Processing and Retrieval (MIPR2018). MIPR2018 intends to provide a popular forum for researchers and practitioners to exchange information/ideas regarding advances in the state of the art and practice of multimedia processing and retrieval, featuring original research contributions and practical system design, implementation, and applications of multimedia information processing and retrieval for single modality or multiple modalities.

as well as to identify the emerging research topics and define the future of multimedia computing. Research in multimedia computing is generally concerned with presentation, integration and computation of one or more media, such as text, image, graphics, audio, video, social data, and data collected from various sensors, etc., using computing techniques. The technical program of MIPR2018 consists of a collection of keynotes, open panels, and workshops, together with paper/poster sessions.

MIPR2018 has a whole day retreat on the first day of the conference (April 10, 2018), which invites the pioneers and leaders in the multimedia research community to discuss the future directions and opportunities of multimedia research. This retreat is sponsored by IEEE Computer Society Technical Committee on Multimedia Computing (TCMC). A report and a feature article on a leading multimedia journal after the retreat will be shared with the multimedia research community.

MIPR2018 covers broad and diverse topics, which include Retrieval, Machine Learning/Deep Learning/Data Mining, Content Understanding and Analytics, Multimedia and Vision, Networking for Multimedia Systems, Systems and Infrastructures, Data Management, Novel Applications, Internet of Multimedia Things.

The success of an international conference such as this depends greatly on the involvement of many individuals. First of all, we would like to thank the Conference Committee and Program Committee members, especially General Co-Chairs Shu-Ching Chen and Mei-Ling Shyu; Program Co-Chairs Chengcui Zhang, Yung-Hsiang Lu, Yonghong Tian, Mohan Kankanhalli, and Katarzyna Wac; Workshop Co-Chairs Roger Zimmermann, Peng Cui, Wolfgang Huerst, Shervin Shirmohammadi, and Toshihiko Yamasaki; Industrial Program Co-Chairs Haohong Wang and Tong Zhang; Best Paper Award Committee Co-Chairs Abdulmotaleb El Saddik, Pablo Cesar, and Balakrishnan Prabhakaran; Demo Co-Chairs Ramazan Savas Aygun and Jianquan Liu; Panel Co-Chairs Phoebe Chen and Xilin Chen; Publicity Co-Chairs Jaouad Boumhidi, Rodrigo Capobianco Guido, Xiaoqing Lv, Leonel Sousa, Atsuo Yoshitaka, and Qiusha Zhu; Finance Chair Min Chen; Publication Chair Ju Shen; Web Master and Local Arrangment Chair Hsin-Yu Ha; Program Area Chairs Yijuan Lu, Xuan Song, Yun Raymond Fu, Ansgar Scherp, Ming Dong, Guo-Jun Qi, Danda Pani Paudel, Yu-Gang Jiang, Amr Rizk, Wei-Bang Chen, M. Shahriar Hossain, Ichiro Ide, Yukinobu Taniguchi, Pradeep K. Atrey, and Ching-Ju Lin; and IEEE/CS TCMC Chair Mei-Ling Shyu. Our deepest appreciation also goes to our renowned Keynote/distinguished/Plenary/invited Speakers and all the retreat speakers for sharing their vision, insights, and experiences.

We hope that you will have a great time at MIPR2018!

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Content Understanding and Analytics

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Multimedia and Vision

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Systems and Infrastructures

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Data Management

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Novel Application

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Internet of Multimedia Things (IoT)

Pradeep K. Atrey, University at Albany, USA
Ching-Ju Lin, National Chiao Tung University, Taiwan

Conference Program

IEEE
IEEE Computer Society

IEEE MIPR 2018
Miami, Florida, USA
April 10-12, 2018

	April 10	
7:30 - 8:00	**Breakfast**	
8:00 - 8:15	**Welcome**	Monte Carlo 1
8:15 – 9:15	Keynote: Ramesh Jain	Monte Carlo 1
9:15 – 9:30	**Break**	
9:30 – 11:00	Multimedia Retreat I (sponsored by IEEE TCMC)	Monte Carlo 1
11:00 – 11:15	**Coffee Break**	
11:15 – 12:15	Multimedia Retreat II (sponsored by IEEE TCMC)	Monte Carlo 1
12:15 – 13:15	**Lunch**	
13:15 – 14:45	Multimedia Retreat III (sponsored by IEEE TCMC)	Monte Carlo 1
14:45 – 15:00	**Coffee Break**	
15:00 – 16:00	Multimedia Retreat IV (sponsored by IEEE TCMC)	Monte Carlo 1
16:00 – 16:15	**Break**	
16:00 – 17:30	Feature Extraction and Object Detection	Monte Carlo 1
18:00 – 20:00	**Reception**	

April 11		
7:00 - 8:00	**Breakfast**	
8:00 – 9:00	Keynote: Klara Nahrestedt	Monte Carlo 1
9:00 – 9:15	**Break**	
9:15 – 10:45	PS11: Machine Learning and Data Mining I	Monte Carlo 1
	PS12: Multimedia Retrieval I	Cannes
	PS13: Multimedia Systems I	Nice
10:45 – 11:00	**Coffee Break**	
11:00 – 12:30	PS21: Machine Learning and Data Mining II	Monte Carlo 1
	PS22: Multimedia Interfaces and Human-Computer Interactions	Cannes
	PS23: Workshop: MR2AMC I	Nice
12:30 – 13:30	**Lunch**	
13:30 – 14:30	Keynote: Edward Chang	Monte Carlo 1
14:30 – 14:45	**Coffee Break**	
14:45 – 16:15	PS31: Special Session: Low-Power Image Recognition	Monte Carlo 1
	PS32: Machine Learning and Data Mining III	Cannes
	PS33: Workshop: MR2AMC II (1445-1625)	Nice
16:15 – 16:30	**Break**	
16:30 – 17:30	Poster + Demo	Foyer
18:30 – 20:30	**Banquet and Award Ceremony**	

April 12		
7:30 - 8:00	**Breakfast**	
8:00 – 9:00	Keynote: Changwen Chen	Monte Carlo 1
9:00 – 9:15	**Break**	
9:15 – 10:45	PS41: Workshop: MMPrag I	Monte Carlo 1
	PS42: Multimedia Content Understanding and Analytics I	Cannes
	PS43: Machine Learning and Data Mining IV	Nice
10:45 – 11:00	**Coffee Break**	
11:00 – 12:30	PS51: Workshop: MMPrag II	Monte Carlo 1
	PS52: Multimedia Content Understanding and Analytics II	Cannes
	PS53: Multimedia Data Management	Nice
12:30 – 13:30	**Lunch**	
13:30 – 14:30	Keynote: Wen Gao	Monte Carlo 1
14:30 – 14:40	**Coffee Break**	
14:40 – 16:00	PS61: Multimedia Retrieval II	Monte Carlo 1
	PS62: Multimedia Systems II	Cannes
	PS63: Workshop: Fake Multimedia I	Nice
16:00 – 16:10	**Break**	
16:10 – 17:30	PS71: Novel Applications (forensics and security)	Monte Carlo 1
	PS72: Multimedia and Vision	Cannes
	PS73: Workshop: Fake Multimedia II	Nice

Program Details

April 10	
7:30-17:00	Registration
7:30-8:00	Breakfast
8:00-8:15	Welcome from Conference Chair
8:15-9:15	**Keynote: Dr. Ramesh Jain** **Title: Multimedia Health: Designing Personal Navigators** Room: Monte Carlo 1 Session Chair: Shu-Ching Chen, Florida International University
9:15-9:30	Break
9:30-11:00	**Multimedia Retreat I (sponsored by IEEE TCMC)** Panel: Grand Challenges for Multimedia Moderator: Mohan Kankanhalli *Open to all attendees*
11:00-11:15	Coffee Break
11:15-12:15	**Multimedia Retreat II (sponsored by IEEE TCMC)** Panel: Common Research Themes Across Grand Challenges Moderator: Mohan Kankanhalli *Open to all attendees*
12:15-13:15	Lunch
13:15-14:45	**Multimedia Retreat III (sponsored by IEEE TCMC)** Panel: Create Software Infrastructure for Multimedia, Data Collection and Analysis at Internet Scale. Moderator: Yung-Hsiang Lu *Open to all attendees*
14:45-15:00	Coffee Break
15:00-16:00	**Multimedia Retreat IV (sponsored by IEEE TCMC)** Panel: Roadmap and Actions Moderator: Shu-Ching Chen *Open to all attendees*
16:00-16:15	Break
16:15-17:30	**Feature Extraction and Object Detection** Room: Monte Carlo 1 Session Chair: Chengcui Zhang, The University of Alabama at Birmingham, USA
Regular Paper (20 min)	Vehicle detection in UAV traffic video based on convolution neural network Shulin Li, Weigang Zhang, Guorong Li, Li Su, Qingming Huang Beijing University of Posts and Telecommunications, China Harbin Institute of Technology, China Institute of Computing, Chinese Academy of Sciences, China

Regular Paper (20 min)	Comparing Visual, Textual, and Multimodal Features for Detecting Sign Language in Video Sharing Sites Caio Duarte Diniz Monteiro; Frank Shipman; Ricardo Gutierrez-Osuna Texas A&M University, USA
Regular Paper (20 min)	Integrating Visual and Textual Affective Descriptors for Sentiment Analysis of Social Media Posts Shuanglu Dai; Hong Man Stevens Institute of Technology, USA
Poster paper (15 min)	Fast Vision-based Pedestrian Traffic Light Detection Xue-Hua Wu; Renjie Hu; Yu-Qing Bao Southeast University, China Nanjing Normal University, China
18:00-20:00	**Welcome Reception**

April 11	
7:30-17:00	Registration
7:00-8:00	Breakfast
8:00-9:00	**Keynote: Dr. Klara Nahrstedt** **Title: Multi-Camera Content Delivery Systems: Challenges and Opportunities** Room: Monte Carlo 1 Session Chair: Mei-Ling Shyu, University of Miami
9:00-9:15	Break
9:15-10:45	**Parallel Sessions 1**
PS11	**Machine Learning and Data Mining I** Room: Monte Carlo 1 Session Chair: Junqing Yu, Huazhong University of Science and Technology, China
Regular paper (20 min)	Ontology-Driven Hierarchical Deep Learning for Fashion Recognition Zhenzhong Kuang; Jun Yu; Zhou Yu; Jianping Fan Hangzhou Dianzi University, China University of North Carolina at Charlotte, USA
Regular paper (20 min)	Deep Learning of Path-based Tree Classifiers for Large-Scale Plant Species Identification Haixi Zhang; Zhenzhong Kuang; Jinye Peng; Xiaoyi Feng; Jianping Fan Northwestern Polytechnical University, China Hangzhou Dianzi University, China Northwestern University, China University of North Carolina at Charlotte, USA
Regular Paper (20 min)	Deep Structured Prediction: A New Formulation for Person Re-Identification Xinpeng L. Liao; Chengcui Zhang; Ming Dong; Xin Chen The University of Alabama at Birmingham, USA Wayne State University, USA Governor State University, USA
Invited paper (20 min)	Do They All Look the Same? Deciphering Chinese, Japanese and Koreans by Fine-Grained Deep Learning Yu Wang; Jiebo Luo University of Rochester, USA
PS12	**Multimedia Retrieval I** Room: Cannes Session Chair: Ju Wang, Virginia State University

Regular paper (20 min)	PharmKi: A Retrieval System of Chemical Structural Formula Based on Graph Similarity Jingwei Qu; Xiaoqing Lu; Chengcui Zhang; Penghui Sun; Bei Wang; Zhi Tang Peking Univeristy, China The University of Alabama at Birmingham, USA
Regular paper (20 min)	DeepRailway: A Deep Learning System for Forecasting Railway Traffic Tianqi Xia, Xuan Song,Zipei Fan,Hiroshi Kanasugi, QuanJun Chen, Renhe Jiang, Ryosuke Shibasaki The University of Tokyo, Japan
Invited paper (20 min)	MMH: Multi-modal Hash for Instant Mobile Video Search Wenhui Gao; Xinchen Liu; Huadong Ma; Yanan Li; Xiaoyan Gu Beijing University of Posts and Telecommunications, China Chinese Academy of Sciences, China
Invited paper (20 min)	Multimedia Retrieval that Works Ramazan Aygun, Wanda Benesova University of Alabama at Huntsville, USA Slovak University of Technology in Bratislava, Slovakia
PS13	**Multimedia Systems I** Room: Nice Session Chair: Hong Man (Stevens Institute of Technology, USA)
Regular paper (20 minutes)	Analyzing Real-Time Multimedia Content from Network Cameras Using CPUs and GPUs in the Cloud Ahmed S Kaseb; Bo Fu; Anup Mohan; Yung-Hsiang Lu; Amy R. Reibman; George Thiruvathukal Cairo University, Egypt Purdue University, USA Loyola University Chicago, USA
Regular paper (20 minutes)	A Novel Objective Quality Assessment Method for Perceptually-Coded Cloud Gaming Video Saeed Shafiee Sabet; Mahmoud R. Hashemi; Shervin Shirmohammadi; Mohammad Ghanbari University of Tehran, Iran University of Ottawa, USA
Regular paper (20 minutes)	Buffer Management for Synchronous and Low-Latency Playback of Multi-Stream User-Generated Content Emmanouil Potetsianakis; Jean Le Feuvre Telecom ParisTech, Fance

Regular paper (20 minutes)	Game-Aware and SDN-Assisted Bandwidth Allocation for Data Center Networks
	Mary Amiri; Hussein Al Osman; Shervin Shirmohammadi
	University of Ottawa, Canada
10:45-11:00	Coffee Break
11:00-12:30	**Parallel Session 2**
PS21	**Machine Learning and Data Mining II** Room: Monte Carlo 1 Session Chair: Min Chen, University of Washington Bothell, USA
Invited paper (20 minutes)	Personalizing a Generic ECG Heartbeat Classification for Arrhythmia Detection: A Deep Learning Approach Jake Wu; Emily Chang; Edward Y Chang HTC Research & Healthcare, Taiwan Dynamical Biomarkers Group HTC Research & Healthcare, Taiwan
Invited paper (20 minutes)	Generative Sensing: Transforming Unreliable Sensor Data for Reliable Recognition Lina Karam; Tejas Borkar; Yu Cao; Junseok Chae Arizona State University, USA
Invited paper (20 minutes)	Sequential Deep Learning for Disaster-Related Video Classification Haiman Tian; Hector Cen Zheng; Shu-Ching Chen Florida International University, USA
Invited paper (20 minutes)	Dynamic Sampling in Convolutional Neural Networks for Imbalanced Data Classification Samira Pouyanfar; Yudong Tao; Anup Mohan; Haiman Tian; Ahmed S Kaseb; Kent Gauen; Ryan Dailey; Sarah Aghajanzadeh; Yung-Hsiang Lu; Shu-Ching Chen; Mei-Ling Shyu Florida International University, USA University of Miami, USA Purdue University, USA Cairo University, Egypt
PS22	**Multimedia Interfaces and Human-Computer Interactions** Room: Cannes Session Chair: Chengcui Zhang, University of Alabama at Birmingham, USA
Invited paper (20 minutes)	Who is Earning? Understanding and Modeling the Virtual Gifts Behavior of Users in Live Streaming Economy

	Wei Tu; Chen Yan; Yiping Yan; Xu Ding; Lifeng Sun Tsinghua University, China
Invited paper (20 minutes)	A New TV World for Kids – When ZUI Meets Deep Learning Haohong Wang; Yaoyuan Fu; Yang Li; Guanghan Ning; Zhihai He; Mengwen Liu TCL Research America, USA University of Missouri, USA Amazon.com, Inc., USA
Invited paper (20 minutes)	Audio based Handwriting Input for Tiny Mobile Devices Tuo Yu; Haiming Jin; Klara Nahrstedt University of Illinois at Urbana-Champaign, USA
Invited paper (20 minutes)	Immersive, Social Applications for 8K Displays V. Michael Bove Massachusetts Institute of Technology, USA
PS23	**Workshop: Multimodal Representation, Retrieval, and Analysis of Multimedia Content (MR2AMC) I** Room: Nice Session Chair: Dr. Debanjan Mahata, University of Arkansas at Little Rock
Keynote (60 min)	**Keynote: Dr. Rada Mihalcea, University of Michigan** **Title: Multimodal Sensing of Human Behavior**
MR2AMC_1 (15 minutes)	The Impact of multi-optimizers and Data Augmentation on TensorFlow Convolu-tional Neural Network Performance Arwa Mohammed Taqi; Ahmed Awad; Mariofanna Milanova; Fadwa Al-Azzo University of Arkansas at Little Rock, USA
MR2AMC_2 (15 minutes)	Entity Resolution using Logistic Regression as an extension to the Rule-Based Oyster System Fumiko Kobayashi; Aziz Eram; John Talburt University of Arkansas at Little Rock, USA
12:30-13:30	Lunch
13:30-14:30	**Keynote: Dr. Edward Y. Chang** **Title: Representation Learning on Big and Small Data** Room: Monte Carlo 1

	Session Chair: Yung-Hsiang Lu, Purdue University
14:30-14:45	Coffee Break
14:45-16:15	**Parallel Session 3**
PS31	**Special Session: Low-Power Image Recognition** Room: Monte Carlo 1 Session Chair: Abdulmotaleb El Saddik (University of Ottawa, Canada)
Demo paper (15 minutes)	Lightweight Convolutional Neural Networks for Real-Time On-Road Object Detection Hakil Kim; Byunghak Yim; Bin Yang Inha University, South Korea
Invited Presentation 1 (20 minutes)	A Spatio-Temporal Computing-Enabled Spiking Neuromorphic Architecture for Low-Power Edge Devices Tao Liu (ECE, Florida International University), Yiran Chen (Duke University), Wujie Wen (Florida International University)
PS32	**Machine Learning and Data Mining III** Room: Cannes Session Chair: Mehmet Vurkaç, Seattle University, USA
Invited Paper (20 min)	Scalable Logo Detection and Recognition with Minimum Labeling Daniel Mas Montserrat; Qian Lin; Jan Allebach; Edward J. Delp Purdue University, USA HP
Short Paper (15 min)	Multimodal Image Captioning for Marketing Analysis Philipp Harzig; Stephan Brehm; Rainer Lienhart; Carolin Kaiser; René Schallner University of Augsburg, Germany GfK Verein, Germany
Short Paper (15 min)	Joint Estimation of Age and Gender from Unconstrained Face Images using Lightweight Multi-task CNN for Mobile Applications Jia-Hong Lee; Yi-Ming Chan, Ting-Yen Chen, Chu-Song Chen Academia Sinica, Taiwan
Short Paper (15 min)	GeoSClean: Secure Cleaning of GPS Trajectory Data using Anomaly Detection Vikram Patil; Priyanka Singh; Shivam Parikh; Pradeep K. Atrey State University of New York at Albany, USA

	Indian Institute of Technology Roorkee, India
Short Paper (15 min)	Affective Visual Question Answering Network Nelson Ruwa; Qirong Mao; Ming Dong Jiangsu University, China Wayne State University, USA
PS33 **(14:45-16:25)**	**Workshop: Multimodal Representation, Retrieval, and Analysis of Multimedia Content (MR2AMC) II** Room: Nice Session Chair: Dr. Debanjan Mahata, University of Arkansas at Little Rock
(18 minutes)	Baysian Regularization based ANN for the Design of Flexible Antenna for UWB Wireless Applications Ali Hammoodi; Fadwa Al-Azzo; Mariofanna Milanova; Haider Raad University of Arkansas, USA Xavier University, USA
(18 minutes)	Quantitative Analysis of Renal Fibrosis using a Colorimetric System Cassandra Reed; Shree Sharma; Sandra Prieto; Timothy Muldoon University of Arkansas, USA
(18 minutes)	Theme-weighted Ranking of Keywords from Text Documents using Phrase Embeddings Debanjan Mahata; John Kuriakose; Rajiv Ratn Shah; Roger Zimmermann; John Talburt University of Arkansas at Little Rock, USA InfoSys, USA Indraprastha Institute of Information Technology - Delhi, India National University of Singapore, Singapore
(18 minutes)	A Multimodal Approach to Predict Social Media Popularity Mayank Meghawat; Satyendra Yadav; Debanjan Mahata; Yifang Yin; Rajiv Ratn Shah; Roger Zimmermann National Institutes of Technology - Ahmedabad, India Delhi Technological University, India University of Arkansas at Little Rock, USA National University of Singapore, Singapore Indraprastha Institute of Information Technology - Delhi, India
(18 minutes)	Self-Attentive Feature-level Fusion for Multimodal Emotion Detection Devamanyu Hazarika; Sruthi Gorantla; Soujanya Poria; Roger Zimmermann National University of Singapore, Singapore Indian Institute of Science, India

16:15-16:30	Break
16:30-17:30	**Demo and Poster Session** Room: Foyer Session Chair: Ramazan Ayun (University of Alabama at Huntsville, USA)
Demo paper	Lightweight Convolutional Neural Networks for Real-Time On-Road Object Detection Hakil Kim; Byunghak Yim; Bin Yan Inha University, South Korea
Demo paper	What is going on in the world? A display platform for media understanding Delia Fernandez; Elisenda Bou; Xavier Giro-i-Nieto Polytechnic University of Catalonia, Spain Vilynx, Spain
Demo paper	A Standalone Demo for Quiz Game "Describe and Guess" Yikun Sheng; Xiaoshan Yang; Changsheng Xu HeFei University of Technology, China Chinese Academy of Sciences Institute of Automation, China
Demo paper	Extracting Typical Domain Keywords from Annual Reports of Listed Company Zhaohui Chao; Lin Li Wuhan University of Technology, China
Demo paper	Multi-types Court E-File Classification System Wei Duan; Lin Li Wuhan University of Technology, China
Poster Paper	Ownership Identification and Signaling of Multimedia Content Components Luntian Mou Beijing University of Technology, China
Poster Paper	Fast Vision-based Pedestrian Traffic Light Detection Xue-Hua Wu; Renjie Hu; Yu-Qing Bao Southeast University, China Nanjing Normal University, China
Poster Paper	Automatic Feature Subset Selection for Clustering Images using Differential Evolution Sesha Srinivas Vangipuram; Srikrishna Atluri; Eswara Reddy B

	Rayapati Venkata Ragarao and Jagarlamudi Chndramouli College of Engineeing, India Javaharlal Nehru Technological University, India
Industrial Poster Paper	The Bring Your Own Device Trend In An Oil And Gas Sector
	INIABASI EPHRAIM EKPO; Habib Ullah Khan; Sheila D. Fournier-Bonilla
	University of Liverpool, UK
	Qatar University, Qatar
	LLUMNO LNC
Industrial Poster Paper	An Investigation into The Effect Of Implementing An Integrated It System In A Multi-Location Healthcare
	Diaa Eldin ELSaied; Habib Ullah Khan; Sheila D. Fournier-Bonilla
	Magrabi hospitals and centers
	Qatar University, Qatar
	LLUMNO LNC
18:30-20:30	**Banquet and Award Ceremony**

April 12	
8:00-15:00	Registration
7:30-8:00	Breakfast
8:00-9:00	**Keynote: Dr. Chang Wen Chen** **Title: Intelligent Multimedia Delivery in 5G Mobile Networks** Room: Monte Carlo 1 Session Chair: Mei-Ling Shyu, University of Miami
9:00-9:15	Break
9:15-10:45	**Parallel Sessions 4**
PS41	**Workshop: Multimedia Pragmatics: A Cross-Fertilization of Content-Based Retrieval and Natural Language Processing I (MMPrag I)** Room: Monte Carlo 1 Session Chair: William Grosky (University of Michigan, USA)
Keynote (60 min)	**Keynote: Dr. Mohamed Abouelenien (University of Michigan-Dearborn)** **Title: Understanding and Modeling Human Behavior Using a Multimodal Approach**
Short paper (16 min)	Information Retrieval and Recommendation using Emotion from Speech Signals Alexander Iliev, Peter Stanchev University of Wisconsin-Stevens Point, USA Kettering University, USA
PS42	**Multimedia Content Understanding and Analytics I** Room: Cannes Session Chair: Pedro Silva (University of California, Irvine, USA)
Regular paper (20 min)	Understanding Human Aging Patterns from a Machine Perspective Shixing Chen; Ming Dong Wayne State University, USA
Regular paper (20 min)	COME for No Reference Video Quality Assessment Chunfeng Wang; Li Su; Weigang Zhang University of Chinese Academy of Sciences, China Harbin Institute of Technology, China
Invited paper (20 min)	Multi-Pose Learning based Head-Shoulder Re-identification Jia Li; Yunpeng Zhai; Yaowei Wang; Yemin Shi; Yonghong Tian Perking University, China

	Beijing University of Posts and Telecommunications, China
	Beijing Institute of Technology, China
Invited paper (20 min)	Soccer Fans Sentiment Through The Eye of Big Data:The UEFA Champions League as a Case Study
	Samah Aloufi; Fatimah Alzamzami; Mohamad Hoda; Abdulmotaleb EI Saddik
	University of Ottawa, Canada
PS43	**Machine Learning and Data Mining IV**
	Room: Nice
	Session Chair: Hsin-Yu Ha, Florida International Unviersity, USA
Invited paper (20 min)	Statistical Machine Learning vs Deep Learning in Information Fusion: Competition or Collaboration?
	Ling Guan; Lei Gao; Nour El Madany; Chengwu Liang
	Ryerson University, Canada
	Zhengzhou University, China
Invited paper (20 min)	Can you tell a face from a HEVC bitstream?
	Saeed Ranjbar Alvar; Hyomin Choi; Ivan Bajic
	Simon Fraser University, Canada
Regular paper (20 min)	Embedding User Behavioral Aspect in TF-IDF like Representation
	Ligaj Pradhan, Chengcui Zhang, Xin Chen, Steven Bethard
	University of Alabama at Birmingham, USA
	Governors State University, USA
	University of Arizona, USA
Poster paper (15 min)	Automatic Feature Subset Selection for Clustering Images using Differential Evolution
	Sesha Srinivas Vangipuram; Srikrishna Atluri; Eswara Reddy B
	R V R & J C College of Engineering, India
	JNTUA College of Engineering, India
WACI paper (15 min)	Exploring Facial Differences in European Countries Boundary by Fine-tuned Neural Networks
	Viet-Duy Nguyen; Minh Tran; Jiebo Luo
	University of Rochester, USA
10:45-11:00	Coffee Break

11:00-12:30	Parallel Sessions 5
PS51	**Workshop: Multimedia Pragmatics: A Cross-Fertilization of Content-Based Retrieval and Natural Language Processing II (MMPrag II)** Room: Monte Carlo 1 Session Chair: Peter Stanchev, Kettering University
(20 min)	Having the Best of Both Worlds: Exploring Coherence in Visual Explanations Malihe Alikhani (Rutgers University, USA) and Matthew Stone (Rutgers University, USA)
(20 min)	Using Thermal Images and Physiological Features to Model Human Behavior: A Survey FULL Christian Hessler (University of Michigan-Dearborn, USA) and Mohamed Abouelenien (University of Michigan-Dearborn, USA)
(20 min)	Beyond Big Data of Human Behaviors: Modeling Human Behaviors and Deep Emotions James Deng (Hong Kong Applied Science and Technology Research Institute, Hong Kong), Clement Leung (Beijing Normal University, China and Hong Kong Baptist University, Hong Kong) and Kristen Li (Hong Kong Baptist University, Hong Kong)
PS52	**Multimedia Content Understanding and Analytics II** Room: Cannes Session Chair: Ling Guan, Ryerson University, Canada
Invited paper (20 min)	Attribute-assisted Domain Transfer from Image to Sketch Yikun Sheng; Xiaoshan Yang; Xueliang liu; Changsheng Xu HeFei University of Technology , China Chinese Academy of Sciences Institute of Automation, China
Invited paper (20 min)	CycleGANs Based Social Image Stylization by Emotion Jie Nie; Lei Huang; Zhen Li; Meng Yuan; Zhiqiang Wei Ocean University of China, China
Short Paper (15 min)	Predictive Real-Time Beat Tracking from Music for Embedded Application Irfan Al-Hussaini; Ahmed Imtiaz Humayun; Shariful Islam Foysal; Samiul Alam; Abdullah Al Masud; Arafat Mahmud; Rakibul Islam Chowdhury; Nabil Ibtehaz; Sums Uz Zaman; Rakib Hyder; Sayeed Shafayet Chowdhury; Mohammad Ariful Haque Bangladesh University of Engineering and Technology, Bangladesh
Short paper (15 min)	MPEG CDVS Feature Trajectories for Action Recognition in Videos Radhakrishna Dasari; Chang Wen Chen State University of New York at Buffalo, USA

WACI paper (15 min)	Object-centric Scene Understanding for Image Memorability Prediction Sejong Yoon; Jongpil Kim The College of New Jersey, USA Bloomberg L.P. , USA
PS53	**Multimedia Data Management** Room: Cannes Session Chair: Yi-Ming Chan, Academia Sinica
Regular paper (20 min)	Client Side Secure Image Deduplication Using DICE Protocol Ashish Agarwala; Pradeep K. Atrey State University of New York at Albany, USA
Invited paper (20 min)	Comprehensive Dataset of Broadcast Soccer Videos Junqing Yu; Aiping Lei; Zikai Song; Tingting Wang; Hengyou Cai; Na Feng Huazhong University of Science & Technology, China
Poster paper (15 min)	Ownership Identification and Signaling of Multimedia Content Components Luntian Mou Beijing University of Technology, China
12:30-13:30	Lunch
13:30-14:30	**Keynote: Dr. Wen Gao** **Title: Digital Retina: A New Feature Surveillance Device for Smart City** Room: Monte Carlo 1 Session Chair: Shu-Ching Chen, Florida International University, USA
14:30-14:40	Coffee Break
14:40-16:00	**Parallel Sessions 6**
PS61	**Multimedia Retrieval II** Room: Monte Carlo 1 Session Chair: Jianquan Liu, NEC Corporation
Invited paper (20 min)	Subjective Evaluation of Vector Representation of Emotion Flow for Music Retrieval Chia-Hao Chung; Ming-I Yang; Homer Chen National Taiwan University, Taiwan
Invited paper (20 min)	A Saliency Guided Shallow Convolutional Neural Network for Traffic Signs Retrieval Jing Zhang; Xi Liang; Qi Tian ; Li Zhuo

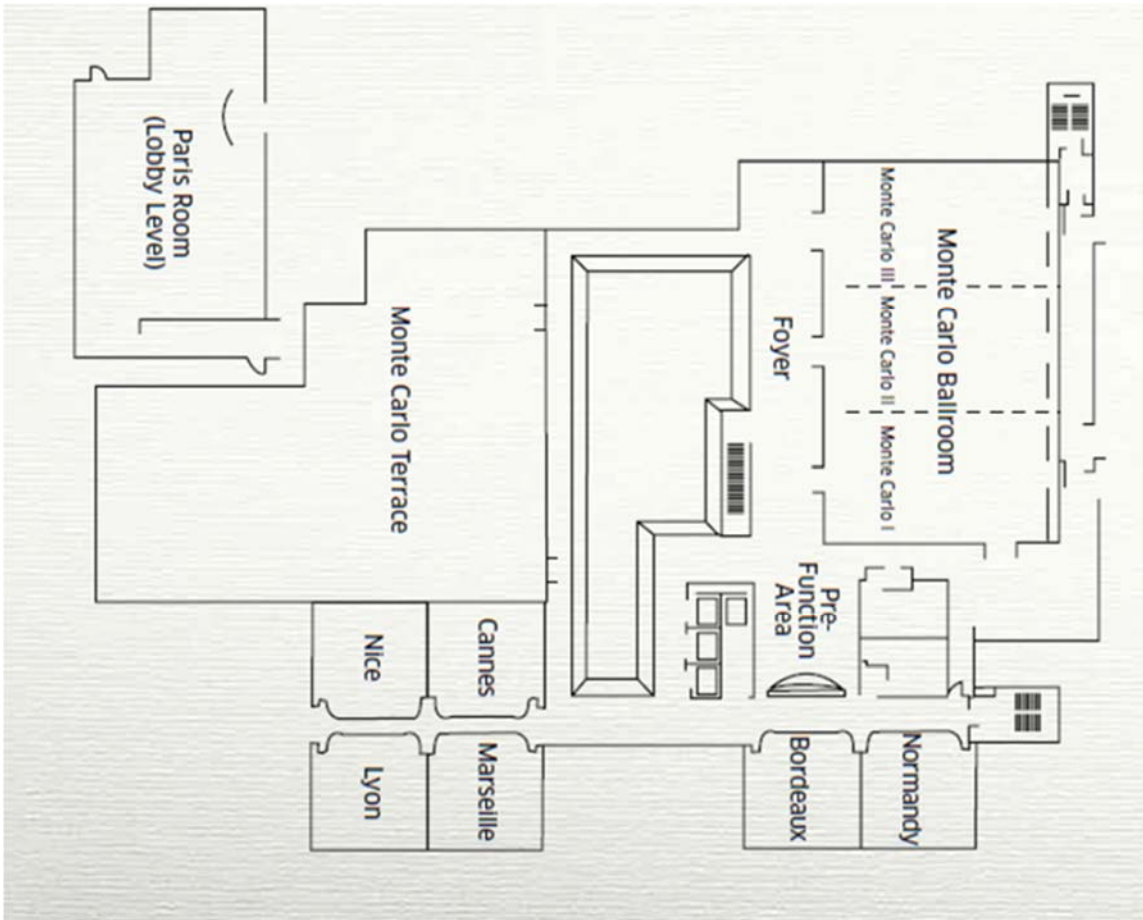|	
	Beijing University of Technology, China
	The University of Texas at San Antonio, USA
Short paper (15 min)	A Context-Aware Nonnegative Matrix Factorization Framework for Traffic Accident Risk Estimation via Heterogeneous Data
	Quanjun Chen; Xuan Song; Zipei Fan; Tianqi Xia; Harutoshi Yamada; Ryosuke Shibasaki
	The University of Tokyo, Japan
Short paper (15 min)	Multi-Vehicle Motion Planning with continuous Vision Pipeline in Search and Rescue
	Ju Wang; Wei-Bang Chen; Vitalis Temu
	Virginia State University, USA
PS62	**Multimedia Systems II** Room: Cannes Session Chair: Roger Zimmermann, National University of Singapore
Invited paper (20 min)	DUPLEX: An architecture for a Data-Universal Plane for Information EXchange
	Cedric Westphal
	University of California, Santa Cruz, USA
Invited paper (20 min)	Automated Objective and Subjective Evaluation of HTTP Adaptive Streaming Systems
	Christian Timmerer; Anatoliy Zabrovskiy; Ali Begen
	Alpen-Adria-Universitaet Klagenfurt, Austria
	Petrozavodsk State University, Russia
	Ozyegin University, Turkey
Short paper (15 min)	Determining the Necessary Frame Rate of Video Data for Object Tracking under Accuracy and Cost Constraints
	Anup Mohan; Ahmed S Kaseb; Kent Gauen; Yung-Hsiang Lu; Amy R. Reibman; Thomas Hacker
	Intel Corporation, USA
	Cairo University, Egypt
	Purdue University, USA
PS63	**Workshop: Fake Multimedia I** Room: Nice Session Chair: Pradeep Atrey, State University of New york at Albany, USA
(5 min)	Welcome note

(35 min)	**Keynote: Lilli Levi (University of Miami)**
	Title: Fake News and Press Delegitimation: A Legal Lens
(20 min)	A Taxonomy of Audiovisual Fake Multimedia Content Creation Technology
	Ali Khodabakhsh; Raghavendra Ramachandra; Christoph Busch
	Norwegian University of Science and Technology, Norway
(20 min)	Automatic JPEG Grid Detection with Controlled False Alarms, and Its Image Forensic Applications
	Tina Nikoukhah; Rafael Grompone von Gioi; Miguel Colom; Jean-Michel Morel
	French National Center for Scientific Research, France
	Universite Paris-Saclay, France
16:00-16:10	Break
16:10-17:30	**Parallel Sessions 7**
PS71	**Novel Applications (forensics and security)**
	Room: Monte Carlo 1 Session Chair: Ming Dong (Wayne State University, USA)
Regular paper (20 min)	SecMed: A secure approach for proving rightful ownership of medical images in encrypted domain over cloud
	Aishwary Pandey; NISHANT AGARWAL; R Balasubramanian
	Indian Institute of Technology, India
	University of Southern California, USA
	Indian Institute of Technology Roorkee, India
Invited paper (20 min)	Fast Compressed Domain Copy Detection with Motion Vector Imaging
	Yuanyuan Yang; Yixiong Zou; Yemin Shi; Qingsheng Yuan; Yaowei Wang; Yonghong Tian
	Beijing University of Posts and Telecommunications, China
	Peking University, China
	University of Chinese Academy of Sciences, China
	Beijing Institute of Technology, China
Industrial Paper (18 min)	SecureCMerge: Secure PDF Merging Over Untrusted Servers
	Neha Sharma; Priyanka Singh; Pradeep K. Atrey
	University at Albany, State University of New York, USA.
Short Paper	Improving Malware Detection Accuracy by Extracting Icon Information

(15 min)	Pedro Silva; Sepehr Akhavan Masouleh; Li Li
	University of California, Irvine, USA
	Cylance, Inc., USA
PS72	**Multimedia and Vision** Room: Cannes Session Chair: Anup Mohan (Intel)
Regular paper (20 min)	Power Constrained Contrast Enhancement by Joint L2,1-norm Regularized Sparse Coding for OLED Display En-Hung Lai; Bo-Hao Chen; Ling-Feng Shi Yuan Ze University, Taiwan
Invited paper (20 min)	A Multi-View Pedestrian Tracking Framework Based on Graph Matching Fanyi Duanmu; Xin Feng; Xiaoqing Zhu; Wai-tian Tan; Yao Wang New York University, China Chongqing University of Technology, China Cisco Systems, USA
Invited paper (20 min)	Robust Surface Light Field Modeling Wei Li; Hui Qiao Baidu, Inc., China
Invited paper (20 min)	A Novel Approach of Multiple Objects Segmentation based on Graph Cut Jiyang Dong; Jian Xue; Shuqiang Jiang; Ke Lu University of Chinese Academy of Science, China Institute of Computing Technology of the Chinese Academy of Sciences, China
PS73	**Workshop: Fake Multimedia II** Room: Nice Session Chair: Francesco Marra, University Federico II of Naples, Italy
(20 min)	Detection of GAN-Generated Fake Images over Social Networks Francesco Marra, Diego Gragnaniello, Davide Cozzolino, Luisa Verdoliva University Federico II of Naples, Italy
(20 min)	Automatic Detection of Demosaicing Image Artifacts and Its Use in Tampering Detection Quentin Bammey, Jean-Michel Morel, Rafael Grompone von Gioi

	École normale supérieure Paris-Saclay, France
(20 min)	Understanding User Profiles on Social Media for Fake News Detection Kai Shu, Suhang Wang, Huan Liu Arizona State University, USA.
(20 min)	Media-Rich Fake News Detection - An Insight Shivam Parikh, Pradeep K. Atrey University at Albany, State University of New York, Albany, USA.

Pullman Airport Hotel Map
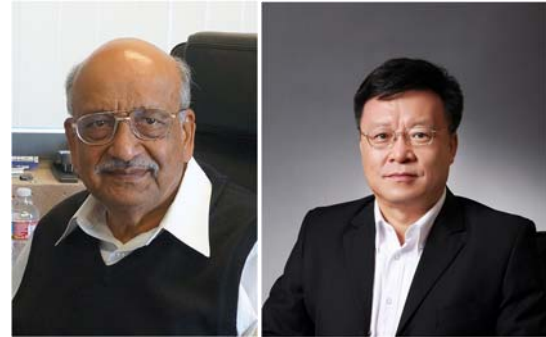
Keynote Talks and MIPR Retreat

Keynote Talks

Time: 8:15-9:15, Tuesday, Apr. 10, 2018
Title: Multimedia Health: Designing Personal Navigators
Speaker: Ramesh Jain, University of California, Irvine, USA

Time: 8:00-9:00, Wednesday, Apr. 11, 2018
Title: Multi-Camera Content Delivery Systems: Challenges and Opportunities
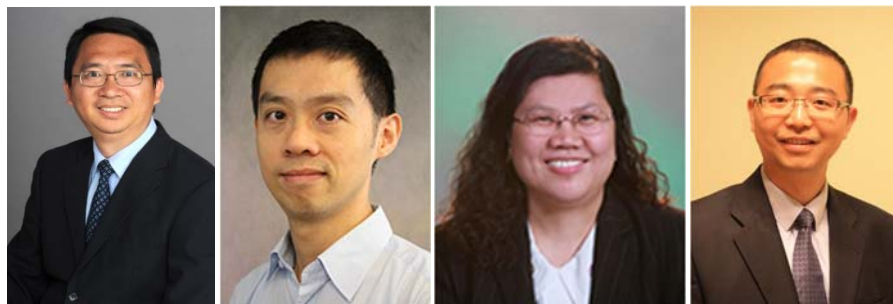Speaker: Klara Nahrstedt, University of Illinois at Urbana-Champaign, USA

Time: 13:30-14:30, Wednesday, Apr. 11, 2018
Title: Representation Learning on Big and Small Data
Speaker: Edward Y. Chang, HTC Research and Healthcare

Time: 8:00-9:00, Thursday, Apr. 12, 2018
Title: Intelligent Multimedia Delivery in 5G Mobile Networks
Speaker: Chang Wen Chen, State University of New York at Buffalo, USA; The Chinese University of Hong Kong, China

Time: 13:30-14:30, Thursday, Apr. 12, 2018
Title: Digital Retina: A New Feature Surveillance Device for Smart City
Speaker: Wen Gao, Chinese Academy of Engineering

MIPR Retreat

Time: 9:30-11:00, Tuesday, Apr. 10, 2018
Multimedia Retreat I (sponsored by IEEE TCMC)
Panel: Grand Challenges for Multimedia
Moderator: Mohan Kankanhalli

Time: 11:15-12:15, Tuesday, Apr. 10, 2018
Multimedia Retreat II (sponsored by IEEE TCMC)
Panel: Common Research Themes Across Grand Challenges
Moderator: Mohan Kankanhalli

Time: 13:15-14:45, Tuesday, Apr. 10, 2018
Multimedia Retreat III (sponsored by IEEE TCMC)
Panel: Create Software Infrastructure for Multimedia, Data Collection and Analysis at Internet Scale
Moderator: Yung-Hsiang Lu

Time: 15:00-16:00, Tuesday, Apr. 10, 2018
Multimedia Retreat IV (sponsored by IEEE TCMC)
Panel: Roadmap and Actions
Moderator: Shu-Ching Chen

FIU and SCIS

Florida International University (FIU):

Florida International University is a comprehensive university offering 340 majors in 190 degree programs in 23 colleges and schools, with innovative bachelor's, master's and doctoral programs across all disciplines including medicine, public health, law, journalism, hospitality, and architecture. FIU is Carnegie-designated as both a research university with high research activity and a community-engaged university. Located in the heart of the dynamic south Florida urban region, our multiple campuses serve over 54,000 students, placing FIU among the ten largest universities in the nation. Our annual research expenditures are in excess of $100 million and our deep commitment to engagement have made FIU the go-to solutions center for issues ranging from local to global. FIU leads the nation in granting bachelor's degrees, including in the STEM fields, to minority students and is first in awarding STEM master's degrees to Hispanics. Our students, faculty, and staff reflect Miami's diverse population, earning FIU the designation of Hispanic-Serving Institution. At FIU, we are proud to be 'Worlds Ahead'! For more information about FIU, please visit http://www.fiu.edu.

School of Computing and Information Sciences (SCIS)

The School of Computing and Information Sciences (SCIS) at FIU is a rapidly growing program of excellence. The School has 29 tenure-track faculty members and over 2,000 students, including over 90 Ph.D. students. The School is engaged in on-going and exciting new and expanding programs for research, education, and outreach. The School offers B.S., M.S., and Ph.D. degrees in Computer Science, and M.S. degrees in Telecommunications and Networking, Cyber-security, and Information Technology as well as B.S./B.A. degrees in Information Technology. NSF ranks FIU 39th nationwide in externally-funded research expenditures. SCIS has six research centers/clusters with first-class computing and support infrastructure and enjoys the broad and dynamic industry and international partnerships. The school equips with many high technologies to motivate the students and community's engagement, including I-CAVE, Tech Station and more.

- CAVE

Integrated Computer Augmented Virtual Environment (I-CAVE) is an instructional and research visualization facility located on FIU's Modesto Maidique Campus. This facility can be used for both undergraduate and graduate instruction in a variety of fields across the natural and social sciences, humanities and professional programs.

The I-CAVE provides new opportunities for students and faculty for research, creative projects, learning exploration and data visualization. The benefit for users is tremendous as this virtual

environment provides for 2-D and 3-D visualizations of scalable data, a completely immersive experience of a virtual space, and the capacity to explore new ideas, places or objects in a dynamic and interactive visual environment.

- Tech Station

Tech Station is a $3 million, 8,000 sq.ft hub for technology innovation, training and community engagement built to attract the next generation of top computing students.

The facility provides creative and inspiring workspaces and enables an innovative approach to integrating advising, mentoring, curriculum, and laboratories. Industry will play a significant role throughout the facility mentoring students and providing real-world requirements that students can experience in the laboratory. Funding for the facility was awarded by the FLBOG who have recognized FIU as a top institution for training tech talent.

Faculty Positions at FIU SCIS

FIU SCIS seeks exceptionally qualified candidates for tenure-track and tenured faculty positions at all levels as well as non-tenure track faculty positions at the level of Instructor, including visiting instructor appointments. For more information, please visit http://www.cis.fiu.edu/positions.