

# AI + Multimedia Make Better Life?

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## Panel Overview

The last few years have seen huge advancements in the world of artificial intelligence (AI) multimedia. As the technologies continue to improve, more and more real-world applications would come out and benefit our daily life from various perspectives. For example, public health care is a major concern. Through analyzing the symptom patterns from images or human skeletons, it is able to realize remote diagnosis and provide medical aide. With the developments in computer vision and multimedia, the idea of autopilot is already a reality and would become more available to the public. Virtual/augmented reality also brings many attractive applications. For education, students can better learn with immersive experience. For e-commerce, augmented reality provides a better trail experience, as well as personalized services according to their preference.

While we are excited about the promising applications of AI multimedia, they are supported by fundamental topics and methods, and driven by enormous amount of digital data from social media or other online resources. There is still a long way to go to transform techniques into industrial manufacture. Many problems remain unsolved, ranging from science, ethics and laws, etc. This panel aims to invite prestigious multimedia researchers and active deep learning practitioners to discuss the positioning of AI multimedia now and in the future.

## CCS Concepts/ACM Classifiers

• I.2 [Computing Methodologies]: Artificial Intelligence

**Keywords:** Artificial Intelligence, Multimedia, Life, Panel

## Wen-Huang Cheng, National Chiao Tung University

Dr. Cheng is currently a Professor with the Institute of Electronics, National Chiao Tung University (NCTU), Hsinchu, Taiwan, where he is the Founding Director with the Artificial Intelligence and Multimedia Laboratory (AIMMLab). Before joining NCTU, he led the Multimedia Computing Research Group at the Research Center for Information Technology Innovation (CITI), Academia Sinica, Taipei, Taiwan, from 2010 to 2018. His current research interests include multimedia, artificial intelligence, computer vision, machine learning, social media, and financial technology. He has received numerous research and service awards, including the 2018 MSRA Collaborative Research Award, the Outstanding Reviewer Award of 2018 IEEE ICME, the 2017 Ta-Yu Wu Memorial Award from Taiwan's Ministry of Science and Technology (MOST), the 2017 Significant Research Achievements of Academia Sinica, the 2016 Y. Z. Hsu Scientific Paper Award, the Outstanding Youth Electrical Engineer Award from the Chinese Institute of Electrical Engineering in 2015, the Top 10% Paper Award from the 2015 IEEE MMSP, the K. T. Li Young Researcher Award from the ACM Taipei/Taiwan Chapter in 2014. He is APSIPA Distinguished Lecturer.

## Jiaying Liu, Peking University

Dr. Liu is currently an Associate Professor with the Institute of Computer Science and Technology, Peking University. She received the Ph.D. degree (Hons.) in computer science from Peking University, Beijing, China 2010. She has authored over 100 technical articles in refereed journals and proceedings. She holds 28 granted patents. Her current research interests include image/video processing, compression, and computer vision. Dr. Liu is a Senior Member of IEEE, and CCF. She was a Visiting Scholar with the University of Southern California, Los Angeles, CA, USA, from 2007 to 2008. She was a Visiting Researcher with the Microsoft Research Asia in 2015 supported by the Star Track for Young Faculties. She has also served as a TC member in the IEEE CAS MSA and APSIPA IVM. She was the APSIPA Distinguished Lecturer from 2016 to 2017.

## Mohan S. Kankanhalli, National University of Singapore

Dr. Kankanhalli is the Provost's Chair Professor with the Department of Computer Science, National University of

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Singapore, Singapore, where he is also the Dean of the School of Computing. He received the B.Tech. degree from the Indian Institute of Technology, Kharagpur, India, and the M.S. and Ph.D. degrees from the Rensselaer Polytechnic Institute, Troy, NY, USA. His current research interests include multimedia computing, multimedia security, image/video processing and social media analysis. Dr. Kankanhalli is a Fellow of IEEE. He was awarded a large grant by Singapore's National Research Foundation to set up the Centre for "Sensor-enhanced Social Media." He is very active in the Multimedia Systems Research Community. He was the ACM SIGMM Director of Conferences during 2009–2013. He is on the editorial boards of several journals including the ACM Transactions on Multimedia Computing, Communications, and Applications, Springer Multimedia Systems Journal, Pattern Recognition Journal, and Multimedia Tools and Applications Journal.

**Abdulmotaleb El Saddik**, University of Ottawa

Dr. El Saddik is Distinguished University Professor and University Research Chair in the School of Electrical Engineering and Computer Science at the University of Ottawa. His research focus is on the establishment of Digital Twins using AI, AR/VR and Tactile Internet that allow people to interact in real-time with one another as well as with their digital representation. He has authored and co-authored 10 books and more than 550 publications and chaired more than 50 conferences and workshop. Dr. El Saddik is a Senior Associate Editor of the ACM Transactions on Multimedia Computing, Communications and Applications, IEEE Multimedia and Transactions on Multimedia, and a Guest Editor for several IEEE transactions and journals. He has received research grants and contracts totaling more than \$18 M. He has supervised more than 120 researchers and received several international awards, among others, are ACM Distinguished Scientist, Fellow of the Engineering Institute of

Canada, Fellow of the Canadian Academy of Engineers and Fellow of IEEE, IEEE I&M Technical Achievement Award, IEEE Canada C.C. Gotlieb (Computer) Medal and A.G.L. McNaughton Gold Medal for important contributions to the field of computer engineering and science.

**Benoit Huet**, EURECOM

Dr. Huet is Assistant Professor in the Data Science department of EURECOM (France). He received his BSc degree in computer science and engineering from the Ecole Supérieure de Technologie Electrique (Groupe ESIEE, France) in 1992. In 1993, he was awarded the MSc degree in Artificial Intelligence from the University of Westminster (UK) with distinction, where he then spent two years working as a research and teaching assistant. He received his DPhil degree in Computer Science from the University of York (UK) for his research on the topic of object recognition from large databases. He was awarded the HDR (Habilitation to Direct Research) from the University of Nice Sophia Antipolis, France, in October 2012 on the topic of Multimedia Content Understanding: Bringing Context to Content. He is associate editor for IEEE transaction on Multimedia, Multimedia Tools and Application (Springer) and Multimedia Systems (Springer) and has been guest editor for a number of special issues (EURASIP Journal on Image and Video Processing, IEEE Multimedia, etc.). He regularly serves on the technical program committee of the best conference of the field (ACM MM/ICMR, IEEE ICME/ICIP). He served as Technical Program co-Chair of ACM Multimedia 2016 and ACM ICMR 2018 and will be General Co-Chair for Multimedia Modeling 2019 in Thessaloniki, Greece and ACM Multimedia 2019 in Nice, France. He has co-authored over 150 papers in Books, Journals and International conferences. His current research interests include Large Scale Multimedia Content Analysis, Mining and Indexing – Video Understanding and Hyperlinking - Multimodal Fusion - Socially-Aware Multimedia.