Chang Wen Chen

CONTACT INFORMATION:

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CAREER HIGHLIGHTS:

- **Dean, School of Science and Engineering**, The Chinese University of Hong Kong, Shenzhen, 2017-2020
- **Distinguished ECE Alumni Award**, University of Illinois at Urbana-Champaign, 2019
- **SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities**, State University of New York System, 2016
- **Editor-in-Chief**, *IEEE Trans. Multimedia*, Jan 2014 – Dec 2016
- **UB Exceptional Scholar – Sustained Achievement Award**, State University of New York at Buffalo, 2012
- **Hans Fisher Senior Fellow,** Institute for Advanced Study, Technical University of Munich, Germany, 2011 – present
- **Alexander von Humboldt Research Award,** US Senior Scientist category, 2010
- **Editor-in-Chief,** *IEEE Trans. Circuits & Systems for Video Tech.*, Jan 2006 – Dec 2009
- **Allen Henry Endowed Chair Professor**, Florida Institute of Technology, 2003 – 2007
- **Sigma Xi Excellence in Graduate Research Mentoring Award,** University of Missouri-Columbia, 2003
- **Fellow**, **IEEE (Institute of Electrical and Electronics Engineers)**, for contributions to digital image and video processing, analysis and communications, 2004
- **Fellow, SPIE (International Society for Optical Engineering),** for contributions to electronic imaging and visual communications, 2007
- Author/Co-Author of nine (9) **Best Paper Awards**/**Best Student Paper Awards** for papers published in premier IEEE Transactions and IEEE/ACM conferences

SUMMARY OF LEADERSHIP EXPERIENCES

Major Achievements as Dean of the School of Science and Engineering at CUHKSZ (June 2017-January 2020):

- Significant Growth in Undergraduate Students: Led an effective School level campaign in undergraduate recruiting by visiting top high schools in several provinces in China. Promote whole-person education curriculum to high school students. Growing from freshman/sophomore two classes (700) in 2017 to ALL four classes (1800+);
- Outstanding Graduation Class: Design a strategic campaign by working with top universities in US and in Europe to introduce and promote the innovative educational

programs of this newly established university CUHKSZ. Personally write reference letters for most Dean's List students (50+). Impressive Results: 78% of the first graduating class go for graduate school worldwide; 60% of the graduate admissions are from world top 100 universities.

- Successful Faculty Recruiting: Made several recruiting trips to US, Europe and Asia-Pacific regions and personal meetings with graduating PhD students and Postdocs. Successfully recruited 80+ new faculty members in ALL eight (8) different major areas in science and engineering, including over a dozen world leading distinguished scholars (Fellows of IEEE and other professional societies)
- New Curriculum/New Major Creation: Led the initiatives in creating new curricula for several new majors and developing several dozens of new courses; Designed and opened 70+ new major required/major elective courses; Total courses offered by SSE has grown from 70 in 2017 academic year to over 150+ in 2019 academic year; Designed effective procedures for course scheduling and instructor assignment
- International Education Programs: Reaching out to international universities in US and Europe to show high educational quality at CUHKSZ and to develop innovative joint-educational programs: (1) 3+2 Joint BS/MS programs, (2) 4+1 Joint BS/MS program, (3) One semester abroad program, (4) Summer study program; By the end of 2019, the total number of partners universities has reached 100, mostly from US and Europe, including formal joint degree programs with University of Michigan and University of Minnesota and short-term programs with many international universities, including top universities: University of California-Berkeley, University of Cambridge, University of Oxford, and Carnegie Mellon University
- Establishing Strong Research Program: Leading the initiatives in establishing three Nobel Laureate Laboratories in SSE (Kobilka, Warshel, and Ciechanover, each supported by a funding of 100 Million RMB for five years), which has recently been moved to the newly established School of Life and Health Sciences. Design and execute an effective campaign for individual faculty to secure external grants from both national and local funding agencies. Annual funding grown from 42 Million RMB in 2017 to 193 Million RMB in 2019, a 4X growth in two years.
- Problem Solving and Community Reach-Out: For such a newly established university, it mandates the Dean to develop creative solutions for various unforeseen problems, related to both academic issues and personal issues for faculty, staff, and students. Promoting strong collaborative spirits to work with diverse constituents within the University and beyond the campus walls (industry/government).

Major Achievements as Deputy Director (Concurrent appointment June 2018 – Present) of the Peng Cheng Laboratory (PCL) (http://www.szpclab.com/):

- Exploratory Research Program: Design and implement PCL's exploratory research program to attract top scientists from within China and abroad to conduct independent investigation of groundbreaking research. Successfully recruited over one dozen top researchers: Members of Chinese Academy of Sciences and Chinese Academy of Engineering. Total annual budget for this program: >100M RMB.
- International Collaboration Program: Initiate and oversee PCL's carefully planned international collaboration program through developing strategic cooperation with top academic and research institutions in Europe and Asia-Pacific regions. Signed cooperation agreements with 10+ top universities, including NUS, NTU, HKUST, HK CityU, HK PolyU, TUM, and EPFL. Developing strategic relationship with top AI

Institutions in Europe: ELLIS and DFKI. Exploring the international exchange of PCL's young researchers with international collaborating institutions

- Talent Recruiting Program: Initiate and organize the annual Overseas Talent Recruiting Forum by inviting selected graduating PhD students and Postdocs from overseas institutions to share their research at PCL and for PCL investigators to demonstrate PCL's research at the Forum for an effective talent recruiting. The Forum held in March 2019 attracted 200+ applicants and 52 of them invited to attend. Over one dozen of these participants have been recruited to joint PCL either full time or part time

Major Achievements as Vice President of Finance and Administration for IEEE Circuits and Systems Society (January 2016-December 2018):

- Society Overall Budget Planning: Responsible for CASS society level overall budget preparation and execution; Balancing income from membership as well as society-sponsored journals and conferences and expense for society administrative operations, journal and conference operations and local chapter operations. Total annual budget: ~US$ 4.5 Million; Average surplus for 2016-2018: ~US$ 300K
- Society President's Initiatives: Assisting CASS President in the budget planning and monitoring of President's Initiatives, including CASS History Book, Student Design Competition, Local Chapter Revitalization, and CASS Book Series. Worked with two CASS Presidents, Prof. Franco Maloberti and Prof. Yong Lian, with an annual budget of US$ 300K for initiatives
- Annual Outreach Initiatives: Initiate and lead the annual CASS Outreach Program to promote CASS in different geographical regions through sponsoring activities organized by the local CASS Chapters. For three consecutive years, a total of 200+ proposals have been received and about 40% of these proposals are selected based on their merits in four main categories: (1) attracting new members; (2) enhancing services to current members; (3) enhancing industry-academic collaborations, and (4) special services to female and young members. Total annual budget: ~US$200K

CURRENT RESEARCH INTERESTS:

- Multimedia communication, mobile video streaming, Internet of Video Things (IoVT)
- Multimedia systems, visual surveillance systems, smart city, mobile healthcare system
- Image/video processing, computer vision, deep learning, GAN/CNN for image aesthetics
- Multimedia signal processing, mobile virtual reality, 360° video, immersive mobile video
- Digital health, wearable devices, medical image analysis, networked health monitoring

EDUCATION:

- Doctor of Philosophy (October 1992),
  Advisor: Professor Thomas S. Huang,
  Department of Electrical and Computer Engineering,
  University of Illinois at Urbana-Champaign (UIUC)

- Master of Science in Electrical Engineering (December 1986),
  Department of Electrical Engineering - Systems,
  University of Southern California (USC), Los Angeles

- Bachelor of Science in Electrical Engineering (July 1983),
  Department of Electrical Engineering,
  University of Science and Technology of China, Hefei, China,

ACADEMIC EXPERIENCE:

- Chair Professor of Visual Computing
  Director, Advanced Visual Computing Laboratory
  The Hong Kong Polytechnic University — April 2021 – Present

- SUNY Empire Innovation Professor of Computer Science and Engineering
  Director, UBMM – Ubiquitous Multimedia Laboratory (www.cse.buffalo.edu/UBMM/)
  State University of New York at Buffalo (UB) — January 2008 – March 2021

- Dean, School of Science and Engineering (June 2017 – January 2020)
  Presidential Chair Professor (June 2017 – August 2020)
  The Chinese University of Hong Kong, Shenzhen— (On-leave without Pay from UB)

- Allen S. Henry Endowed Chair Professor of Engineering
  Director, Wireless Center of Excellence (WiCE)
  Florida Institute of Technology — July 2003 – December 2007

- Assistant/Associate Professor of Electrical and Computer Engineering (Tenured)
  University of Missouri – Columbia — September 1996 – June 2003

- Research Assistant Professor of Electrical and Computer Engineering
  University of Rochester — August 1992 – September 1996

INDUSTRIAL EXPERIENCES:

- Head, Interactive Media Group
  (On-leave from University of Missouri-Columbia)
  David Sarnoff Research Laboratories — September 2000 - October 2002

- Senior Technical Advisor
  Media Communications Laboratory
  Huawei Technologies Co, LTD — May 2008 – May 2014

- Senior Visiting Researcher
  Mobile and Internet Multimedia Groups
  Microsoft Research Asia, Beijing — Summers 1999 – 2000, 2004, 2006 – 2013

- Imaging Science Consultant
  Imaging Science Research Laboratory
  Eastman Kodak Company — 1994 – 1996

HONORARY APPOINTMENT:

- **Honorary Member,** China Society of Image and Graphics, 2011 –
- **Honorary Hans Fisher Senior Fellow,** Institute for Advanced Study, Technical University of Munich, Germany, 2011 –
- **Honorary Professor,** XiDian University, Xi'an, China, 2008 –
- **Grand Master Distinguished Visiting Professor,** University of Science and Technology of China, 2006 – 2017
- **Distinguished Visiting Professor,** Institute for Media Technology, Technical University of Munich, Germany, March –June, 2010 and June – August, 2011
- **Distinguished Guest Professor**, National Cheng Kung University, Tainan, Taiwan, April – June, 2009

BEST PAPER AWARDS:

- **2016 Test of Time Award** in Computer Networking by Shanghai Computer Society, for the paper: C. Luo, F. Wu, C. W. Chen, J. Sun, "Compressive data gathering for large-scale wireless sensor networks," MobiCom 2009, Annual International Conference on Mobile Computing and Networking, September 2009, Beijing, China
- **Best Paper Award** at *2014 IEEE International Conf. Multimedia and Expo* (ICME 2014) (J. Hu, D.-Q. Zhang, H. Yu and C. W. Chen, "High Resolution Free-view Interpolation of Planar Structure," Proc. IEEE ICME 2014, Chengdu, China, July 2014) J. Hu: PhD student.
- **Best Student Paper Award** at *2013 IEEE International Conf. Multimedia and Expo* (ICME 2013) (Z. Xu, X.-J. Wang and C. W. Chen, "Mining Visualness," Proc. IEEE ICME 2013, San Jose, CA, July 2013) Z. Xu: M.S. student.
- **Best Student Paper Award** at *2012 IEEE Visual Communications and Image Processing Conference* (VCIP2012) (W. Yin, T. Mei and C. W. Chen, "Accessing photo quality with geo-context and crowdsourced photos," Proc. IEEE VCIP 2012, San Diego, CA, Nov 2012.) W. Yin: PhD student.
- **Best Paper Award** Runner-up at *2012 IEEE International Conference on Multimedia and Expo* (ICME2012) (Q. Liu, Z. Zou and C. W. Chen, "QoS-driven and fair downlink scheduling for video streaming over LTE networks with deadline and hard hand-off," *Proc. ICME 2012*, pp. 188-193, Melbourne, Australia, July 2012) Q. Liu: PhD student.
- **Best Student Paper Award** from *ACM MobiMedia 2009* (J. Zhang, H. Li and C. W. Chen, "Progressive Distributed Coding of Multispectral Images" Presented at *5th International Mobile Multimedia Communication Conference*, September 2009, London, UK) J. Zhang: M.S. student.
- **IEEE ComSoc Multimedia Communications TC 2008 Best Paper Award,** (Z. Li, Q. Sun, Y. Lian and C. W. Chen, "Joint source-channel-authentication resource allocation and unequal authenticity protection for multimedia over wireless networks," *IEEE Trans. Multimedia*, Vol. 9, No. 4, pp. 837-850, June 2007)
- **Michael B. Merickel Award for Best Student Paper** at the *1999 SPIE Medical Imaging International Symposium* (L. Fan and C.W. Chen, "3D warping and registration from lung images," Presented at *SPIE Medical Imaging '99*, February 1999, San Diego, CA) Li Fan: PhD student.
- **Best Student Paper Award** at *1994 SPIE Visual Communication and Image Processing*. (J. Luo, C.W. Chen and K. J. Parker, "On the application of Gibbs random field in image processing: from segmentation to enhancement," Presented at *VCIP '94*, September 1994, Chicago, IL.) Jiebo Luo: Ph.D. student.

PAPER AWARDS FINALISTS:

- Best Paper Award Finalist at *14th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems* (MSWiM2011) (H. Cui, C. Luo, K. Tan, F. Wu and C. W. Chen, "Seamless Rate Adaptation for Wireless Networking," *Proceedings of MSWiM2011*) H. Cui: PhD student.
- Best Paper Award Finalist at *2011 IEEE International Conference on Multimedia and Expo* (ICME2011) (X. Zhu and C. W. Chen, "Towards Maximal Decodable Rate for Multi-rate Multicast of Digital Media with Network Coding," *Proceedings of ICME2011*) X. Zhu: PhD student.
- Best Student Paper Award Finalist at *International Symposium on Circuits and Systems 2011* (Q. Liu, Z. Zou and C. W. Chen, "A Deadline-Aware Virtual Contention Free EDCA Scheme for H.264 Video over IEEE 802.11e Wireless Networks" *Proc. of International Symposium on Circuits and Systems 2011*) Q. Liu: PhD student.
- Best Student Paper Award Finalist from *2009 IEEE International Conference on Multimedia and Expo 2009* (X. Zhu, Z. Zhang and C. W. Chen, "A joint layered coding scheme for unified reliable and secure media transmission with implementation on JPEG 2000 images," *Proc. 2009 International Conf. Multimedia and Expo*, June 2009) X. Zhu: PhD student.

KEYNOTE/PLANERY SPEECHES:

- **Keynote Speaker,** IEEE BigMM2018, Fourth IEEE International Conference on Multimedia Big Data, Xi'an, China, September 2018
- **Keynote Speaker**, *AINGIOT2018*，Artificial Intelligence and Its Applications on Next Generation of Internet of Things, Kitakyushu, Japan April 2018
- **Keynote Speaker**, *ChinaMM2017*，China Computer Federation Multimedia Technology Annual Conference, Nanjing, China September 2017
- **Keynote Speaker**, IEEE BigMM2017, Third IEEE International Conference on Multimedia Big Data, Laguna Hills, CA, USA April 2017
- **Keynote Speaker**, ACM ICMICS2016, 2016 ACM International Conference on Internet Multimedia Computing and Service, Xi'an, China, August 2016
- **Keynote Speaker**, IS&T Electronic Imaging 2016, Symposium on Imaging and Multimedia Analytics in a Web and Mobile World, San Francisco, February 2016
- **Keynote Speaker**, *MMM2016*, The 22nd International Conference On MultiMedia Modelling, Miami, USA, January 2016
- **Keynote Speaker**, *GlobalSIP2015*, The 3rd IEEE Global Conference on Signal and Information Processing, Orlando, USA, December 2015
- **Keynote Speaker**, *MMSP2015, IEEE Workshop on Multimedia Signal Processing 2015*, Xiamen, China, October 2015
- **Keynote Speaker**, *China Institute of Electronics* Young Scientist Forum on Cooperative Computing in Multimedia Communications, Beijing, China, November 2014
- **Keynote Speaker**, *IEEE ICME2014 Workshop on Emerging Multimedia Systems and Applications,* Chengdu, China, July 2014
- **Keynote Speaker**, *ICIEA2014, 9th IEEE Conference on Industrial Electronics and Applications*, Hangzhou, China, June 2014
- **Keynote Speaker,** *ICT2014, 2014 International Conference on Information and Communications Technologies* Nanjing, China, May 2014

- **Keynote Speaker**, *China Institute of Electronics Youth Conference 2012*, Beijing, China, December 2012
- **Keynote Speaker**, *NEM (New and Electronic Media) SUMMIT 2012,* Istanbul, Turkey, October 2012
- **Keynote Speaker**, *ICME2012, IEEE International Conference on Multimedia and Expo,* Melbourne, Australia, July 2012
- **Keynote Speaker,** *VCIP2011, IEEE Visual Communications and Image Processing*, Tainan, Taiwan, November 7, 2011
- **Keynote Speaker,** *The First Huawei Workshop on Multimedia Processing and Computing in Cloud*, April 4, 2011
- **Plenary Speaker,** *2010 IEEE Globecom,* December 9, 2010
- **Keynote Speaker,** *ICME2010 Workshop on IPTV Technologies and Multidisciplinary Applications*, July 23, 2010
- **Keynote Speaker,** *2010 IEEE International Conference on Ubi-media Computing (U-Media),* July 6, 2010
- **Keynote Speaker**, *2009 Pacific-Rim Conference on Multimedia*, December 16, 2009
- **Keynote Speaker**, *2009 ACM International Conference on Internet Multimedia Computing and Service*, November 23, 2009
- **Keynote Speaker**, *2009 Asia Pacific Conference on Postgraduate Research in Microelectronics & Electronics*, November 20, 2009
- **Keynote Speaker**, *2009 International Conference on Multimedia Information Networking and Security*, November 18, 2009
- **Keynote Speaker,** *5th International Mobile Multimedia Communication Conference*, September 8, 2009, London, UK
- **Keynote Speaker**, *IEEE International Multimedia Signal Processing Workshop,* October 10, 2008
- **Keynote Speaker,** *The 14th Chinese National Conference on Image and Graphics*, May 17, 2008
- **Keynote Speaker**, *The 4th International Forum of Digital TV & Wireless Multimedia Communication*, October 16, 2007
- **Keynote Speaker**, *Mid-South Area Engineering & Sciences Conference,* May 17, 2007
- **Keynote Speaker**, *International Computer Symposium,* December 6, 2006
- **Keynote Speaker**, 2nd *International Computational Intelligence and Security*, November 5, 2006
- **Keynote Speaker**, *The 3rd International Forum of Digital TV & Wireless Multimedia Communication*, November 3, 2006
- **Keynote Speaker**, *25th Picture Coding Symposium*, April 26, 2006
- **Keynote Speaker**, *2005 International Forum on Technology and Economy*, June 2005
- **Keynote Speaker**, *2002 International Conference on Communications, Circuits, and Systems*, July 2002

MAJOR PROFESSIONAL SERVICES:

1. Editorial Services

- **Steering Committee Member,** *IEEE Transactions on Multimedia*, Representing IEEE Circuits and Systems Society, 2020 – 2022
- **Editor-in-Chief**, *IEEE Transactions on Multimedia*, 2014 – 2016

- **Editor-in-Chief,** Taylor & Francis Press ***Book Series in Multimedia Computing, Communication and Intelligence***, 2010 – present
- **Editor-in-Chief,** *IEEE Trans. Circuits and Systems for Video Technology*, 2006 – 2009
- **Chair, Editorial Advisory Board,** *Journal of Multimedia,* Academy Publishers, 2008 – present
- **Senior Editor,** *IEEE Journal of Selected Areas in Communication,* 2011 – present
- **Senior Editor,** *IEEE Journal on Emerging and Selected Topics in Circuits and Systems,* 2010 – 2013
- **Editorial Board Member** (Media Review Column Editor), *IEEE MultiMedia Magazine*, January 2003 – 2006.
- **Associate Editor**, *IEEE Trans. Multimedia*, January 2002 – 2005.
- **Associate Editor**, *IEEE Trans. Circuits and Systems for Video Technology*, 1997 – 2005
- **Editorial Board Member**, *Journal of Visual Communication and Image Representation*, January 2000 – 2006.
- **Editorial Board Member**, *Journal of Computerized Medical Imaging and Graphics*, January 2000 – December 2002.
- **Guest Editor,** *IEEE Journal on Selected Areas in Communications* special issue on QoE-Aware Wireless Multimedia Systems, 2011-2012
- **Guest Editor**, *IEEE Communications Magazine* special issue on QoE Management in Emerging Multimedia Services, 2011-2012
- **Chief Guest Editor**, *Proceedings of IEEE* special issue on Recent Advances in Distributed Multimedia Communications, January 2008
- **Guest Editor,** *Journal of China Communications* special issue on Emerging topics in Multimedia Communications, 2006
- **Guest Editor**, *IEEE Journal on Selected Areas in Communications* special issue on Cross-Layer Optimized Wireless Multimedia Communications, 2006
- **Guest Editor,** *Journal of Visual Communication and Image Representation* special issue on Visual Communications in the Ubiquitous Era, 2005
- **Guest Editor,** *Signal Processing: Image Communication* special issue on Recent Advances in Wireless Video, 2003
- **Guest Editor**, *IEEE Trans. Circuits and Systems for Video Technology* special issue on Wireless Video, 2002.
- **Guest Editor,** *Journal of Wireless Communication and Mobile Computing* special issue on Multimedia Over IP, 2002
- **Guest Editor**, *IEEE Journal on Selected Areas in Communications* special issue on Error-Resilient Image and Video Transmission, 2000.

2. Conference Organizations

- **General Co-Chair,** MM Asia 2021, ACM Multimedia Asia 2021, Gold Coast, Australia, December 2021
- **Brave New Idea Track Chair,** ACM MM2021, ACM International Conference on Multimedia 2021, Chengdu, China, October 2021
- **Honorary Chair**, IEEE ICME2021, IEEE International Conference on Multimedia and Expo 2021, Shenzhen, China, July 2021
- **Panel Chair,** IEEE ICASSP2021, IEEE International Conference on Acoustics, Speech, and Signal Processing 2021, June 2021, Toronto, Canada
- **General Co-Chair,** ACM MM2020, ACM International Conference on Multimedia 2020, Seattle, WA, USA, October 2020

- **Honorary Chair,** IEEE MIPR2020, IEEE 3rd International Conference on Multimedia Information Processing and Retrieval 2020, Shenzhen, China, August 2020
- **Steering Committee Member,** IEEE International Symposium on Circuits and Systems, Sponsored by IEEE CAS Society, 2011 – 2016
- **Chair, Steering Committee,** IEEE International Conference on Multimedia and Expo, Sponsored by IEEE CAS, ComSoc, Computer, and SP Societies, 2012 – 2014
- **Steering Committee Member,** IEEE International Conference on Multimedia and Expo, Sponsored by IEEE CAS, ComSoc, Computer, and SP Societies, 2009 – 2012, 2014 - 2016
- **Steering Committee Member,** Picture Coding Symposium, International Conference Series since 1969, 2006 – Present
- **Steering Committee Member,** International Packet Video Workshop, Conference Series since 1987, 2006 – Present
- **General Co-Chair**, ACM Multimedia 2020, Seattle, WA, US, October 2018
- **Panel Chair,** *ICME2019,* IEEE International Conference on Multimedia and Expo 2019, Shanghai, China, July 2019
- **Technical Program Co-Chair,** ACM Multimedia 2018, Seoul, Korea, October 2018
- **Award Chair,** IEEE International Conference on Multimedia and Expo 2016, Seattle, WA, US, July 2016
- **Penal Chair,** ACM Multimedia 2015, Brisbane, Australia, October 2015
- **Penal Chair,** ACM Multimedia 2014, Orlando, FL, November 2014
- **General Co-Chair,** IEEE International Symposium on Circuits and Systems, Beijing, China, May 2013
- **Conference Advisor,** ACM 10th International Conference on Mobile and Ubiquitous Multimedia, Beijing, China, December 2011
- **General Co-Chair,** The 6th International Conference on Image and Graphics, Hefei, China, August 2011
- **Technical Program Committee Chair,** StreamComm 2011, IEEE Workshop on Streaming and Media Communications, Barcelona, Spain, July 2011
- **General Chair,** ACM Multimedia 2010 Workshop on Mobile Cloud Media Computing, Florence, Italy, October 2010
- **Panel Chair,** IEEE International Conference on Multimedia and Expo 2010, Singapore, July 2010
- **Panel Co-Chair,** ACM Multimedia 2009, Beijing, China, October 2009
- **Chair, Best Paper Award Committee,** SPIE Conference on Visual Communications and Image Processing, San Jose, CA, January 2009
- **General Co-Chair,** 2008 IEEE International Conference on Communications, Communication Software and Services Symposium, Beijing, China, May 2008
- **Chair, Best Paper Award Committee,** IEEE International Conference on Multimedia and Expo. Hannover, Germany, June 2008
- **Chair, Best Paper Award Committee,** SPIE Conference on Visual Communications and Image Processing, San Jose, CA, January 2008
- **General Co-Chair,** 2007 IEEE International Workshop on Signal Processing Systems, Shanghai, China, October 2007
- **Co-Chair,** ACM Multimedia 2007 Workshop on Mobile Video, Augsburg, Germany, September 2007
- **Program Committee Chair**, 2007 Visual Communication and Image Processing, San Jose, CA January 2007

- **Technical Program Committee Chair**, 2006 IEEE International Conference on Multimedia and Expo, Toronto, Canada, July 2006
- **Program Committee Chair**, 2006 SPIE Conf. Multimedia on Mobile Devices, San Jose, CA January 2006
- **Program Committee Chair**, 2005 SPIE IT Com: Multimedia Systems and Applications, Boston, MA, October 2005
- **Program Committee Chair**, 2004 SPIE IT Com: Multimedia Systems and Applications, Philadelphia, PA, October 2004
- **Plenary Chair** and Member, Technical Program Committee, 2003 IEEE International Conference on Information Technology: Research and Education, Newark, NJ, August 2003
- Member of Technical Program Committee and Session Chair for numerous ACM, IEEE and other international conferences since 1993, including ACM MM, ICASSP, ICIP, ISCAS, ICC Globecom, WCNC, VCIP, ICPR, ICCV, and SPIE Conferences.

3. International and National Professional and Advisory Services

- **Vice President for Financial and Administrative Activities**, IEEE Circuits and Systems Society, 2016 – 2018
- **Hong Kong Research Grants Council, Panelist** on the RGC Engineering Panel, 2015 – 2020
- **Member, Board of Governors**, IEEE Circuits and Systems Society, 2013 – 2015
- **European Research Council, Advanced Grant International Panelist** on Systems and Communication Engineering, Horizon 2020, 2014 –
- **European Research Council, Advanced Grant International Panelist** on Systems and Communication Engineering, FP7 Program, 2008 – 2014
- **Evaluator, Tan Kah Kee Science Award Foundation,** Chinese Academy of Science, 2013 – Present
- **Evaluator, Singapore President's Technology Award** Evaluation Committee, 2011 – Present
- **Evaluation Panelist, German Research Foundation DFG** (NSF equivalent), Program COIN – Communications in Interference Limited Networks, 2011, 2012
- **Panelist and Evaluator, Greece Ministry of Education** Research Program Thalis, 2011
- **Panelist and Evaluator, Greece Ministry of Education** Research Program Archimedes III, 2011
- **Panelist and Evaluator, China Ministry of Education,** National ChangJiang (Yangtze River) Chair Professor Program, 2007 – Present
- **Panelist and Senior Advisor, Singapore ASTAR** (Agency for Science, Technology and Research), Mobile Media Research Initiative, 2006 – 2010
- **Evaluator, Singapore National Medal of Technology** evaluation committee, 2007 – Present
- **Evaluation Panelist, German Research Foundation DFG** (NSF equivalent), Center of Excellence Initiative International Panel (Electrical Engineering), 2006, 2007
- **Panelist,** US NSF Biomedical Engineering Program Review Panel, 2000, 2005
- **Panelist**, US NSF ITR Program Wireless Communications Review Panel, 2000, 2001
- **Senior Advisor**, Chinese NSF Information and Electronics Division, June 1997 – Present
- Proposal Reviewer, US NSF equivalent of Norway, Austria, Australia, Canada and Korea
- **Member, IEEE Fellow Evaluation Committee**, IEEE Broadcasting Tech. Society, 2007

- **Chair, Fellow Nomination Committee**, IEEE Communications Society Technical Committee on Multimedia Communications, March 2006 – Present
- Member, IEEE Signal Processing Society Technical Committee on Multimedia Signal Processing, January 2003 – 2006
- Member, IEEE Circuits and Systems Society Technical Committee on Visual Signal Processing and Communications, July 1997 – Present.
- Member, IEEE Communications Society Technical Committee on Multimedia Communications, January 1999 – Present.
- Member, IEEE Communications Society Technical Committee on Personal Communications, January 1999 – Present.
- Member, Board of Directors, University of Science and Technology of China Alumni Foundation, 1997 – 1998.

4. University, College, and Department Service Activities

- Chair, Dept. of Computer Science and Engineering Faculty Search Committee, SUNY at Buffalo, 2015 – 2017
- Chair, Dept. of Computer Science and Engineering Distinguished Speaker Committee, SUNY at Buffalo, 2010 – 2012
- Member, School of Engineering and Applied Sciences Promotion Committee, SUNY at Buffalo, 2009 – 2012
- Chair, Dept of Computer Science and Engineering Course Load Policy Committee, SUNY at Buffalo, 2009 – 2010
- Member, Dept. of Computer Science and Engineering Distinguished Speaker Committee, SUNY at Buffalo, 2008 – 2010
- Member, Dept. of Computer Science and Engineering Faculty Search Committee, SUNY at Buffalo, 2011 – 2014
- Director, Wireless Center of Excellence, Florida Institute of Technology (FIT)
- Member, FIT College of Engineering Promotion Committee, 2004, 2005
- Member, FIT College of Engineering ECE Department Head Search Committee, 2006
- Member, FIT ECE Department Computer Engineering Curriculum Committee
- Chair, FIT ECE Department Comprehensive Exam Committee
- Technical Reviewer, University Patents and Licensing, University of Missouri System, February 1998 – January 2001.
- Technical Reviewer, Research Board Grant Program, University of Missouri System, February 1998 – June 2003.
- Member, MU Life Science Mission Enhancement Fellowship Committee, 1999 – 2001.
- Member, MU College of Engineering International Engineering Committee, 1997 - 2000.
- Member, MU College of Engineering Annual Lectureship Committee, 1997 – 2001
- **First Place Winner**, MU College of Engineering Engineers Week Lab Exhibit Competition, 2000
- Chair, MU ECE Department Faculty Search Committee, 2002 – 2003
- Member, MU COE LaPierre Chair Professor Search Committee, 2000 – 2001
- Member, MU ECE Department Graduate Program Committee, Fall 1998 – Winter 2001.
- Chair, MU COE LaPierre Chair Professor Search Committee, 1999 – 2000
- Member, Department Ph.D. Qualifying Exam Committee for Communication and Signal Processing Area, September 1997 – December 2000
- Chair, Department Course and Curriculum Committee Subcommittee on Communications Elective Courses, 1996 – 2001.

- Member, 50+ Ph.D. dissertation and 30+ M.S. thesis committees, University of Rochester, University of Missouri-Columbia, Florida Institute of Technology, State University of New York at Buffalo, September 1992 – Present

MAJOR TEACHING ACTIVITIES

1. Teaching Activities at the Hong Kong Polytechnic University

- COMP 6706 — Advanced Topics in Visual Computing — Fall 2021
- COMP 5523 — Computer Vision and Image Processing — Spring 2022

2. Teaching Activities at the State University of New York at Buffalo

- CSE 714 — Seminar: Advances in Multimedia Communications and Networking — Newly developed course, Spring 2008
- CSE 702 — Seminar: Advances in Distributed Multimedia Communications — Newly developed course, Spring 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2103
- CSE 704 — Seminar: Advances in Mobile Cloud Media — Newly developed course, Spring 2015, Spring 2016, Spring 2017
- CSE 634 — Advanced Multimedia Systems — Newly updated course, Fall 2008
- CSE 534 — Introduction to Multimedia Systems — New course, Fall 2009, Fall 2010，Spring 2013, Spring 2014, Spring 2016, Spring 2017, Spring 2021
- CSE 473/573 — Introduction to Computer Vision and Image Processing, Fall 2011, Fall 2012, Fall 2013, Fall 2015, Fall 2016

2. Teaching Activities at the Florida Institute of Technology

- ECE 5238 — Error Control Coding —(Text: Lin and Costello), Fall 2003
- ECE 5118 — Wireless Sensor Networks — Newly developed course, Spring 2004, 2005, 2006, 2007
- ECE 5117 — Multimedia Communications — Newly course, Fall 2004, 2005, 2007
- ECE 3222 — Signals and Systems — (Text: Oppenheim and Willsky), Fall 2004, 2005, 2006, 2007

3. Teaching Activities at the University of Missouri-Columbia

- ECE 216 — Signals and Systems — (Text: Oppenheim and Willsky), Spring 2003
- ECE 301 — Introduction to Digital Communication — Newly developed course, Spring 1997, 1998
- EE 372 — Introduction to Communication Systems — Newly revised course, Winter 1998, 1999, 2000
- EE 401 —Wireless Multimedia Communications — Newly developed course, Winter 1999
- EE 472 — Advanced Communication Systems — Newly revised course, Fall 2000
- EE 477—Digital Signal Processing in Telecommunications —Newly developed course, (Text: Chen – Lecture Notes), Fall 1997, 1998, 1999
- EE 478 — Coding Theory and Applications — New course, Fall 1999, Fall 2000
- EE 482 — Probability and Random Processes for Engineers — New course, Winter 2000

4. Teaching Activities at the University of Rochester

- EE 447 — Digital Image Processing —(Text: Gonzalez & Woods), Springs 1993, 1994, 1995, 1996
- EE 547 — Seminars on Advanced Image Processing — (Lecture notes and journal papers), Falls 1993, 1994, 1995

5. Graduated Ph.D. & M.S. Students

Ph.D. Graduates:

- Jiebo Luo, Ph.D. Degree, F1995, University of Rochester (Fellow, IEEE, SPIE, IAPR)
  Thesis: Low Bit-rate Wavelet-based Image and Video Compression with Adaptive Quantization, Coding and Postprocessing
  Current Employer: Dept. of Computer Science (Full Professor), University of Rochester, Rochester, NY (IEEE Fellow, ACM Fellow, SPIE Fellow)
- Li Fan, Ph.D. Degree, F2000, University of Missouri-Columbia
  Thesis: 3D Reconstruction and Deformation Analysis from Medical Image Sequences with Applications in Left Ventricle and Lung
  Current Employer: EDDA Technology Inc. (Executive Vice President), Princeton, NJ
- Lei Cao, Ph.D. Degree, S2002, University of Missouri-Columbia
  Thesis: Error Resilient Image Coding and Wireless Communications
  Current Employer: University of Mississippi (Full Professor), University, MS
- Jianfei Cai, Ph.D. Degree, S2002, University of Missouri-Columbia
  Thesis: Robust Error Control and Optimal Bit Allocation for Image and Video Transmission over Wireless Channels
  Current Employer: Monash University (Full Professor and Head for the Data Science & AI Department), Australia (IEEE Fellow)
- Min Wu, Ph.D. Degree, F2005, University of Missouri-Columbia
  Thesis: Multimedia Data Transmission for Mobile Wireless Applications
  Current Employer: MAKO Surgical Inc., (Research Manager) Fort Lauderdale, FL
- Daewon Song, Ph.D. Degree, F2007, Florida Institute of Technology
  Thesis: Multimedia Communications over MIMO Systems
  Current Employer: LG Electronics Research Laboratory, (Research Director) Korea
- Guogang Hua, Ph.D. Degree, S2008, Florida Institute of Technology
  Thesis: Distributed Source Coding and Its Applications in Wireless Sensor Networks and Video Compression
  Current Employer: Qualcomm Inc., (Senior Research Engineer) San Diego, CA
- Byung Jung Oh, Ph.D. Degree, F2008, Florida Institute of Technology
  Thesis: Supporting Multimedia Quality of Services in Wireless Networks
  Current Employer: Samsung-Mobile Engineering Lab, (Senior Engineer) Bellevue, WA
- Chaorong Peng, Ph.D. Degree, F2008, Florida Institute of Technology
  Thesis: Intelligent Routing Protocols for Mobile Ad Hoc Wireless Networks
  Current Employer: Self-employed, New Jersey.
- Xinglei Zhu, Ph.D. Degree, F2012, State University of New York at Buffalo
  Thesis: Optimal Authentication, Transmission and Access Control for Multimedia
  Current Employer: Google Research (Research Engineer), Santa Clara, CA

- Shujie Liu, Ph.D. Degree, S2013, State University of New York at Buffalo
  Thesis: Compression, Rendering, and Transmission for 3D and Scalable Video
  Current Employer: Apple Research (Research Engineer), Cupertino, CA
- Wenyuan Yin, Ph.D. degree, F2013, State University of New York at Buffalo
  Thesis: Mobile Multimedia: from Acquisition to Adaptation with Semantics, Context and Social Information
  Current Employer: Google Research (Research Scientist), Sunnyvale, CA
- Qian Liu, Ph.D. degree, F2013, State University of New York at Buffalo
  Thesis: QoS Guaranteed Multimedia Transmission over Wireless Networks
  Current Employer: Dalian University of Technology (Associate Professor), Dalian, China
- Jingteng Xue, Ph.D. degree, S2014, State University of New York at Buffalo Thesis: Perceptual Quality Driven Video Evaluation and Processing
  Current Employer: Apple Research (Research Engineer), Cupertino, CA
- Hao Cui, PhD degree, S2014, University of Science and Technology of China
  Thesis: Seamless Adaptation for Wireless Communications
  Current Employer: Da-Jiang Innovations Research (Research Engineer), Shanghai, China
- Dan Miao, PhD degree, F2015, University of Science and Technology of China
  Thesis: Research on 3D Video Compression, Transmission and Rendering
  Current Employer: Huawei 2012 Innovation Lab (Research Engineer), Santa Clara, CA
- Panya Chanawangsa, Ph.D. degree, S2016, State University of New York at Buffalo
  Thesis: Computer Vision for Advanced Driver Assistance and Intelligent Transportation Systems; Current Employer: Amazon Research (Research Engineer), Seattle, WA
- Jie Hu, Ph.D. degree, S2016, State University of New York at Buffalo
  Thesis: Image Based View Rendering from Un-calibrated Cameras
  Current Employer: Sony US Research Center (Senior Research Engineer), San Jose, CA
- Zhisheng Yan, Ph.D. degree, S2016, State University of New York at Buffalo
  Thesis: Sustained Mobile Visual Computing: A Human-Centric Perspective
  Current Employer: Georgia State University (Assistant Professor), Atlanta, GA
- Changsha Ma, Ph.D. Degree, F2017, State University of New York at Buffalo
  Thesis: Security and Privacy Issues in Cloud Media and Social Media Application
  Current Employer: Start-up Company in Bay Area (Chief Architect), San Jose, CA, USA
- Yu Liu, Ph.D. Degree, F2017, State University of New York at Buffalo
  Thesis: Media Recommendation with Mobile and Social Networking Augmentations
  Current Employer: Citadel Securities (Research Scientist), Chicago, IL USA
- Zhiqiang Liu, Ph.D. Degree, S2018, University of Science and Technology of China
  Thesis: Resource Allocation Strategy in Wireless Body Area Networks
  Current Employer: Huawei Technologies (Research Engineer), Hangzhou, China
- Hao Wu, Ph.D. Degree, F2019, University of Science and Technology of China
  Thesis: Resource Optimization Techniques in Edge Caching Based Dense Wireless Networks
  Current Employer: Huawei Technologies (Research Engineer), Shanghai, China
- Shuang Ma, Ph.D. Degree, F2019, State University of New York at Buffalo
  Thesis: Learning to Build Multimodal Intelligence across Vision, Language and Speech
  Current Employer: Microsoft Research (Senior Research Scientist), Seattle, WA USA
- Xiaoda Jiang, Ph.D. Degree, S2020, University of Science and Technology of China
  Thesis: Resource Optimization Mechanism for Wireless Video Transmission
  Current Employer: TBA
- Radhakrishna Dasari, Ph.D. Degree, S2020, State University of New York at Buffalo
  Thesis: Multi-Sensor Fusion for Fast and Robust Compuer Vision Applications
  Current Employer: University of Vermont (Assistant Professor), Burlington, VT

M.S. Graduates: (50+ Total; Average 2-3/year)

6. Ph.D. Students Currently under Supervision

- Tao Wei, Network Morphism and Its AutoML Applications,
  Expected degree date: December 2021 (SUNY-Buffalo)
- Peipei Zhu, Action Recognition via Audio-Visual Data Fusion,
  Expected degree date: May 2022 (The Chinese University of Hong Kong, Shenzhen)
- Yong Zhang, Multi-modal Information Integration for Event Analysis,
  Expected degree date: May 2022 (The Chinese University of Hong Kong, Shenzhen)
- Rui Zhu, Self-supervised Learning for Action Recognition in Video,
  Expected degree date: May 2023 (The Chinese University of Hong Kong, Shenzhen)

7. Post-Doctoral Fellow Supervision

- Dr. Lulin Chen, May 1995 - December 1996, Research in Image Enhancement and Image and Video Coding, Current Position: Principal Research Engineer and Manager, Media Tech, Santa Clara, CA
- Dr. Yue Yu, November 1998 - April 2001, Research in Texture Image Analysis and Synthesis, Current Position: Senior Researcher, Motorola Broadband Research, San Diego, CA
- Dr. Yu Wang, September 2003 – November 2004, Research in Novel Routing and MAC Protocols for Wireless Sensor Networks, Current Position: Motorola Research Labs, Chicago, IL
- Dr. Wei Pu, March 2010 – September 2012, Research in Multimedia over Dynamic Adaptive Streaming over HTTP, Current Position: Qualcomm Multimedia R&D and Standards Group
- Dr. Tiesong Zhao, January 2014 – July 2015, Research in Quality of Experience for Video Coding and Networking, Current Position: Full Professor, Fuzhou University, China
- Dr. Lei Yu, March 2016 – 2018, Research in Network Information Theory and Applications, Current Position: Postdoc Fellow at National University of Singapore

8. Visiting Researchers

- Prof. Fuqiang Yao, September 2000 – March 2001, Research in Broadband Communication, Current Position: Director, Nanjing Institute of Science and Technology, Nanjing China
- Prof. Guorui Jiang, September 2000 – September 2001, Research in Information Technology, Current Position: Deputy Dean, School of Business Management, Beijing University of Technology, Beijing China
- Prof. Peter Reamy, September 2004 – March 2005, Research in Broadband Communication, Current Position: Professor at Berne University of Applied Sciences, Switzerland
- Prof. Rongke Liu, April 2005 – April 2006, Research in Video Communication, Current Position: Deputy Dean, School of Information Technology, Beihang University, Beijing China

- Mr. Tao Sheng, November 2007 – November 2008, Research in Distributed Video Coding, Current Position: Senior Engineer at Qualcomm Canada, Toronto, Canada
- Ms. Zhenyu Wu, July 2009 – July 2010, Research in Video Transcoding for Mobile Transmission, Senior Lecture at University of Electronic Science and Technology, Chengdu, China
- Prof. Lifang Wu, September 2009 – August 2010, Research in Video Analysis for Tracking Articulated Objects, Deputy Dean, College of Electronic Information and Control Engineering, Beijing University of Technology
- Prof. Hancheng Lu, April 2010 – April 2011, Research in Network Coding for Efficient Media Delivery over Vehicular Networks, Professor at University of Science and Technology of China
- Dr. Wenchao Yang, April 2012 – April 2013, Research in Mobile IPV6 for Robust Video Streaming over Wireless Networks, Lecturer at Harbin Institute of Technology
- Prof. Yang Cao, October 2013 – December 2014, Research in Computer Vision and Video Processing, Professor at University of Science and Technology of China
- Prof. Shuai Fang, October 2013 – December 2014, Research in Image Processing and Dehazing based on Optical Principles, Professor at Hefei University of Technology
- Prof. Li Zhang, February 2014 – February 2015, Research in MANET and Named Domain Networks, Professor at Beijing University of Technology
- Wengang Chen, April 2014 – April 2015, Research in Color Makeover with Crowd Sourcing and Aesthetics, Professor at North China Electric Power University

9. Graduate Research Mentoring Recognitions

- Ph.D. Student Zhisheng Yan, Recipient of **2018 ACM SIGMM Best Dissertation Award**, August, 2018
- Ph.D. Student Zhisheng Yan, Recipient of State University of New York at Buffalo Department of Computer Science and Engineering **Best Dissertation Award**, July 2017
- Ph.D. Student Zhisheng Yan, Recipient of **David M. Benenson Memorial Scholarship**, State University of New York at Buffalo, 2016
- Ph.D. Student Shujie Liu, Finalist of **Microsoft Research Fellowship**, 2011 (Among 22 selected from 300+ applicants US nationwide)
- Recipient of 2005 **Outstanding Supervisor Award** at Florida Institute of Technology
- Recipient of 2003 **Sigma Xi Excellence in Graduate Research Mentoring Award** at the University of Missouri-Columbia, March 2003
- Finalist for 2000 **Sigma Xi Excellence in Graduate Research Mentoring Award** at the University of Missouri-Columbia
- Ph.D. Student Min Wu, Finalist of **AAMI Young Investigator Competition,** June 2003.
- Ph.D. Student Lei Cao, Recipient of **Superier Graduate Achievement Award**, (2000), University of Missouri-Columbia Graduate College.
- Ph.D. Student Li Fan, Recipient of **SPIE Educational Scholarship Award**, (1999), and **Outstanding Graduate Student Award**, (1999), College of Engineering, University of Missouri-Columbia.
- Ph.D. Student Jianfei Cai, Recipient of **Superier Graduate Achievement Award**, (1998), University of Missouri-Columbia Graduate College.

PUBLICATIONS

(Total: 6 Books, 10 Book Chapters, 140+ Journal Articles, 270+ Conf. Papers)

Books:

1. C. W. Chen, P. Chatzimisios, T. Dagiuklas and L. Atzori, editors, **Multimedia Quality of Experience (QoE): Current Status and Future Requirements**, John Wiley & Sons, Ltd. West Sussex, UK 2016
2. C. W. Chen, editor, ***Visual Communications and Networking***, University of Science and Technology of China Press, Hefei, China, 2012
3. X. Jiang, M. Y. Ma and C. W. Chen, editors, ***Mobile Multimedia Processing***, Springer Verlag Publisher, Heidelberg, Germany, 2010
4. S. Lian, Z. Li and C. W. Chen, editors, ***Intelligent Multimedia Transmission: Techniques and Applications***, Springer Verlag Publisher, Heidelberg, Germany, 2011
5. A. Bovik, C.W. Chen and D. Goldgof, ***Advances in Image Processing and Understanding: A Festschrift for Thomas S. Huang***, World Scientific Publisher, 2001.
6. C.W. Chen and Y. Q. Zhang, editors, ***Visual Information Representation, Communication, and Image Processing***, Marcel Dekker Publisher, New York, NY, 1999.

Book Chapters:

1. C. W. Chen, "Emerging technologies in multimedia communications and networking: challenges and research opportunities," in Multimedia Image and Video Processing, Edited by L. Guan, S. Y. Kung, and Y. He, Taylor & Francis Publisher, 2011
2. C. W. Chen and Z. He, "Wireless Video Communication under Resource Constraints," in *Encyclopedia of Multimedia,* Edited by B. Furht, Springer Publisher, 2006
3. M. Wu and C. W. Chen, "Multiple bitstream image transmission over wireless sensor networks," in *Sensor Network Operations*, S. Phoha, T. F. La Porta and C. Griffin, Editors, Wiley, John & Sons, 2006
4. C. W. Chen, Z. Sun, H. Li, J. Cai and L. Cao, "Image transmission over noisy channels: TCQ-based coding schemes," *Advances in Image Processing and Understanding: A Festschrift for Thomas S. Huang*, A. Bovik, C. W. Chen and D. Goldgof, editors, World Scientific Publisher, June, 2001.
5. L. Fan and C. W. Chen, "Telemedicine: A multimedia communication perspective," in *Multimedia Image and Video Processing*, edited by Ling Guan, Sun-Yuan Kung and Jan Larsen, CRC Press, Boca Raton, FL, 1999.
6. C. W. Chen and Y. Q. Zhang, "Recent advances in visual communication and image processing" in *Visual Information Representation, Communication, and Image Processing*, C. W. Chen and Y. Q. Zhang, editors, Marcel Dekker Publisher, New York, NY, May, 1999.
7. J. Luo and C. W. Chen, "Adaptive quantization in wavelet-based image and video coding" in *Visual Information Representation, Communication, and Image Processing*, C. W. Chen and Y. Q. Zhang, editors, Marcel Dekker Publisher, New York, NY, May, 1999.
8. C. W. Chen, "Telemedicine" in *Wiley Encyclopedia of Electrical and Electronics Engineering*, J. G. Webster, editor, John Wiley & Sons, Inc., Publishers, New York, NY, 1998.

9. L. Chen and C. W. Chen, "A cellular connectionist architecture for clustering-based adaptive quantization with application to video coding," in *Multimedia Communication & Video Coding*, Y. Wang, S. Panwar, S-P Kim and H. L. Bertoni, editors, Plenum Press, New York, NY, pp. 333-340, 1996.
10. C. W. Chen and T. S. Huang, "A new algorithm for motion/structure estimation using error probability," in *Time-varying Image Processing and Moving Object Recognition*, 2, V. Cappellini, editor, Elsevier Science Publishers B. V. Amsterdam, pp. 250-257, 1990.

Journal Editorials:

1. S. Winkler, C. W. Chen, A. Raake, P. Schelkens, L. Skorin-Kapov, "Introduction to the Special Issue on Measuring Quality of Experience for Advanced Media Technologies and Services," *IEEE Journal of Selected Topics in Signal Processing,* Vol. 11, No. 1, pp. 3-5 January 2017
2. C. W. Chen, "On Building a Stronger Multimedia Community," IEEE Trans. On Multimedia, Vol. 18, No. 1, January 2016
3. C. W. Chen, X. Zhu, Y. Wen and J. J. P. C. Rodrigues, "Guest Editorial - Special section on cloud-based mobile media: Infrastructure, services, and applications," *IEEE Trans on Multimedia,* Vol. 15, No. 4, pp. 721-722, June 2013
4. M. G. Martini, C. W. Chen, Z. Chen, T. Dagiuklas, L. Sun, X. Zhu. "Guest Editorial: QoE-Aware Wireless Multimedia Systems," *IEEE Journal on Selected Areas in Communications,* Vol. 30, No. 7, pp. 1153-1156, August 2012
5. L. Atzori, C. W. Chen, T. Dagiuklas and H. R. Wu, "Guest Editorial: QoE management in emerging multimedia services," *IEEE Communications Magazine*, Vol. 50, No. 4, pp. 18-19, April 2012
6. X. Yang, N. Ling, W. Zhang, C. W. Chen, "Guest Editorial: Special Issue on SoC for Multimedia Networking (SiPS 2007)," *Signal Processing Systems* Vol. 60, No. 3, pp. 269-271, 2010
7. C. W. Chen, S. Gritzalis, P. Lorenz, S. Lian, "Special issue on multimedia networking and security in convergent networks," *Computer Communications* Vol. 33, No. 14, pp. 1575-1577, 2010
8. C. W. Chen, W. Zeng and R. Steinmetz, "Scanning the Issue: Recent Advances in Distributed Multimedia Communications," *Proceedings of IEEE*, Vol. 96, No. 1, January 2008
9. P. Frossard, C. W. Chen, C. J. Sreenan, K. P. Subbalakshmi, D. O. Wu, Q. Zhang, "Guest Editorial: Cross-layer Optimized Wireless Multimedia Communications," *IEEE Journal on Selected Areas in Communications* Vol. 25, No. 4, pp. 641-644, 2007
10. C. W. Chen, "Multimedia Communications: Paradigm Shifting Technologies and Applications," *China Communications Journal*, Vol. 3, pp. 5, October 2006
11. C. W. Chen, "Message from the Editor-in-Chief," *IEEE Trans. Circuits and Systems for Video Technology,* Vol. 16, pp. 321, March 2006
12. C. W. Chen, "Message from Incoming Editor-in-Chief," *IEEE Trans. Circuits and Systems for Video Technology,* Vol. 16, pp. 1, January 2006
13. C. W. Chen, M. Ghanbari and K. N. Ngan, "Guest Editorial: Visual Communication in the Ubiquitous Era," *Journal of Visual Communication and Image Representation*, Vol. 16, pp. 393-396, June 2005.
14. C. W. Chen, "Panorama of Multimedia Coding and Processing," *IEEE MultiMedia Magazine*, Vol. 11, No. 3, pp. 111- 112, July 2004.

15. Y. Altunbasak, C. W. Chen, M. R. Civanlar and K. N. Ngan, "Guest Editorial: Recent advances in wireless video," *Signal Processing: Image Communication*, Vol. 18, No. 10, pp. 857-860, November 2003.
16. C. W. Chen and J. Luo, "Guest Editorial: Special Issue on Multimedia over Mobile IP," *Journal of Wireless Communications and Mobile Computing*, Vol. 2, No. 6, pp. 549-552, September 2002.
17. C. W. Chen, R. L. Lagenduk, A. Reibman and W. Zhu, "Guest Editorial: Introduction to the special issue on wireless video," *IEEE Trans. Circuits and Systems for Video Technology* special issue in wireless video, Vol. 12, No. 6, pp. 511-523, June 2002.
18. C. W. Chen, P. Cosman, N. Kingsbury, J. Liang and J. Modestino, "Guest Editorial: Error Resilient Image and Video Transmission," *IEEE Journal on Selected Areas in Communications*, Vol. 18, No. 6, pp. 809-812, June 2000.

Journal Papers

1. Z. Zhang, M. Li, H. Xie, J. Yu, T. Liu and C. W. Chen, "TWGAN: Twin Discriminator Generative Adversarial Networks," *IEEE Trans. Multimedia*, (Early Access) 2021
2. M. Li, Z. Zhang, J. Yu and C. W. Chen, "Learning Face Image Super-Resolution Through Facial Semantic Attribute Transformation and Self-Attentive Structure Enhancement," *IEEE Trans. Multimedia*, Vol. 23, No. 4, pp. 468-483, March 2021
3. T. Wei, C. Wang and C. W. Chen, "Modularized Morphing of Deep Convolutional Neural Networks: A Graph Approach," *IEEE Trans. Computers*, Vol. 70, No. 2, pp. 305-315, February 2021
4. H. Lu, X. Jiang and C. W. Chen, "Distortion-Aware Cross-Layer Power Allocation for Video Transmission Over Multi-User NOMA Systems," *IEEE Transactions on Wireless Communications*, Vol. 20, No. 2, pp. 1076-1092, February 2021
5. Q. Liu, Z. Yan and C. W. Chen, "Integrating Mobile Display Energy Saving into Cloud-Based Video Streaming via Rate-Distortion-Display Energy Profiling," *IEEE Trans. Cloud Computing*, Vol. 8, No. 4, pp. 1250-1263, December 2020
6. L. Wu, Z. Yang, Q. Wang, M. Jian, B. Zhao, J. Yan and C. W. Chen, "Fusing motion patterns and key visual information for semantic event recognition in basketball videos," *Neurocomputing,* Vol. 413, pp. 217-229, November 2020
7. G. Xiao, J. Ma, S. Wang and C. W. Chen, "Deterministic Model Fitting by Local-Neighbor Preservation and Global-Residual Optimization," *IEEE Trans. Image Processing,* Vol. 29, pp. 8988-9001, September 2020
8. Y. Gui, H. Lu, X. Jiang, F. Wu, C, W. Chen, "Compressed Pseudo-Analog Transmission System for Remote Sensing Images Over Bandwidth-Constrained Wireless Channels," *IEEE Trans. Circuits and Systems for Video Technology*, Vol. 30, No. 9, pp. 3181-3195, September 2020
9. C. W. Chen, "Internet of Video Things: Next-Generation IoT with Visual Sensors," IEEE Internet of Things Journal, Vol. 7, No. 8, pp. 6676-6685, August 2020
10. H. Wu, H. Lu, F. Wu and C. W. Chen, "Energy and Delay Optimization for Cache-Enabled Dense Small Cell Networks," *IEEE Trans. Vehicular Technology*, Vol. 69, No. 7, pp. 7663-7678, July 2020
11. L. Wu, Z. Yang, J. He, M. Jian, Y. Xu, D. Xu and C. W. Chen, "Ontology-Based Global and Collective Motion Patterns for Event Classification in Basketball Videos," *IEEE Trans. Circuits and Systems for Video Technology*, Vol. 30, No. 7, pp. 2178-2190, July 2020
12. N. Gao, Y. Xu, D. He, S.-I. Park, H. Hong, H. Ju, C. W. Chen and W. Zhang, "Min-Sum Algorithm Using Multi-Edge-Type Normalized Scheme for ATSC 3.0 LDPC Decoders," *IEEE Trans. Broadcasting*, Vol. 66, No. 3, pp. 729-736, March 2020

13. J. Yu, Q. Ling, C. Luo and C. W. Chen, "Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements," *IEEE/ACM Trans. Audio, Speech & Language Processing*, Vol. 27, No. 12, pp. 2223-2233, December 2019
14. C. Luo, J. Zhang, J. Yu, C. W. Chen and S. Wang, "Real-Time Head Pose Estimation and Face Modeling From a Depth Image," *IEEE Trans. Multimedia*, Vol. 21, No. 10, pp. 2473-2481, October 2019
15. F. Lu, Y. Dong and C. W. Chen, "Layered Decoding Algorithm and Two-Level Quasi-Cyclic Matrix Construction for Rate Compatible Modulation," *IEEE Trans. on Circuits and Systems – I*, Vol. 66, No. 8, pp. 3213-3226, August 2019
16. C. Ma, Z. Yan and C. W. Chen, "SSPA-LBS: Scalable and Social-Friendly Privacy-Aware Location-Based Services," *IEEE Trans. Multimedia*, Vol. 21, No. 8, pp. 2146-2156, August 2019
17. Y. Lou, L.-Y. Duan, S. Wang, Z. Chen, Y. Bai, C. W. Chen and W. Gao, "Front-End Smart Visual Sensing and Back-End Intelligent Analysis: A Unified Infrastructure for Economizing the Visual System of City Brain," *IEEE Journal on Selected Areas in Communications*, Vol. 37, No. 7, pp. 1489-1503, July 2019
18. Y. Ren, Z. Fang, D. Liu and C. W. Chen, "Replay attack detection based on distortion by loudspeaker for voice authentication," *Multimedia Tools and Applications*, Vol. 78, No. 7, pp. 8383-8396, July 2019
19. Z. Yan, M. Zhao, C. Westphal and C. W. Chen, "Toward Guaranteed Video Experience: Service-Aware Downlink Resource Allocation in Mobile Edge Networks," *IEEE Trans. Circuits and System for Video Technology*, Vol. 29, No. 6, pp. 1819-1831, June 2019
20. F. Zhao, J. Fan, H. Liu, R. Lan and C. W. Chen, "Noise Robust Multi-objective Evolutionary Clustering Image Segmentation Motivated by the Intuitionistic Fuzzy Information," *IEEE Trans. Fuzzy Systems*, Vol. 27, No. 2, pp. 387-401, February 2019
21. H. Lu, Y. Gui, X. Jiang, F. Wu and C. W. Chen, "Compressed Robust Transmission for Remote Sensing Services in Space Information Networks," *IEEE Wireless Communications*, Vol. 26, No. 2, pp. 46-54, February 2019
22. C. Ma, Z. Yan and C. W. Chen, "Scalable Access Control For Privacy-Aware Media Sharing," *IEEE Trans. Multimedia*, Vol. 21, No. 1, pp. 173-183, January 2019
23. Z. Liu, B. Liu and C. W. Chen, "Joint Power-Rate-Slot Resource Allocation in Energy Harvesting-Powered Wireless Body Area Networks," *IEEE Trans. Vehicular Technology*, Vol. 67, No. 12, pp. 12152-12164, December 2018
24. Z. Yan, Q. Liu, T. Zhang and C. W. Chen, "CrowdDBS: A Crowdsourced Brightness Scaling Optimization for Display Energy Reduction in Mobile Video," *IEEE Trans. Mobile Computing*, Vol. 17, No. 11, pp. 2536-2549, November 2018
25. J. Liu, G. Zhai, A. Liu, X. Yang, X. Zhao and Chang Wen Chen, "IPAD: Intensity Potential for Adaptive De-Quantization," *IEEE Trans. Image Processing*, Vol. 27, No. 10, pp. 4860-4872, October 2018
26. F. Lu, Y. Dong and C. W. Chen, "Fully-Parallel Stochastic Decoder for Rate Compatible Modulation," *IEEE Trans. on Circuits and Systems-I*, Vol. 65, No. 10, pp. 3555-3567, October 2018
27. X. Min, K. Gu, G. Zhai, J. Liu, X. Yang and C. W. Chen, "Blind Quality Assessment Based on Pseudo-Reference Image," *IEEE Trans. Multimedia,* Vol. 20, No. 8, pp. 2049-2062, August 2018
28. F. Lu, Y. Dong, W. Rao, C. W. Chen, "Low Complexity Decoding Algorithms for Rate Compatible Modulation," *IEEE Access,* Vol. 6, pp. 31417-31429, June 2018

29. F. Zhao, H. Liu, J. Fan, C. W. Chen, R. Lan and N. Li, "Intuitionistic fuzzy set approach to multi-objective evolutionary clustering with multiple spatial information for image segmentation," *Neurocomputing*, Vol. 312, pp. 296-309, June 2018
30. X. Zhang, D. Xiong, K. Zhao, C. W. Chen and T. Zhang, "Realizing Low-Cost Flash Memory Based Video Caching in Content Delivery Systems," *IEEE Trans. Circuits Syst. Video Technology*, Vol. 28, No. 4, pp. 984-996, April 2018
31. Y. Mao, L. Wu, D.-M. Yan, J. Guo, C. W. Chen and B. Chen, "Generating hybrid interior structure for 3D printing," *Computer Aided Geometric Design*, Vol. 62, pp. 63-72, March 2018
32. L. Wu, C. Yan, M. Jian, S. Liu, W. Dong and C. W. Chen, "A fast hybrid retargeting scheme with seam context and content aware strip partition," *Neurocomputing,* Vol. 286, pp. 198-213, February 2018
33. L. Li, B. Li, H. Li and C. W. Chen, "λ-Domain Optimal Bit Allocation Algorithm for High Efficiency Video Coding," *IEEE Trans. Circuits Syst. Video Technology*, Vol. 28, No. 1, pp. 130-142, January 2018
34. K. Gu, W. Lin, G. Zhai, X. Yang, W. Zhang and C. W. Chen, "No-Reference Quality Metric of Contrast-Distorted Images Based on Information Maximization," *IEEE Trans. Cybernetics*, Vol. 47, No 12, pp. 4559-4565, December 2017
35. Z. Chen, J. Lin, N. Liao and C. W. Chen, "Full Reference Quality Assessment for Image Retargeting Based on Natural Scene Statistics Modeling and Bi-Directional Saliency Similarity," *IEEE Trans. Image Processing*, Vol. 26, No. 11, pp. 5138-5148, November 2017
36. B. Tan, J. Wu, Y. Li, H. Cui, W. Yu and C. W. Chen, "Analog Coded SoftCast: A Network Slice Design for Multimedia Broadcast/Multicast," *IEEE Trans. Multimedia*, Vol. 19, No. 10, pp. 2293-2306, October 2017
37. B. Tan, H. Cui, J. Wu and C. W. Chen, "An Optimal Resource Allocation for Superposition Coding-Based Hybrid Digital-Analog System," *IEEE Internet of Things* Journal Vol. 4, No. 4, pp. 945-956, August 2017
38. Q. Li, H. Wang, Y. Yan, B. Li and C. W. Chen, "Local Co-Occurrence Selection via Partial Least Squares for Pedestrian Detection," *IEEE Trans. Intelligent Transportation Systems*, Vol. 18, No. 6, pp. 1549-1558, June 2017
39. Z. Liu, B. Liu and C. W. Chen, "Buffer-Aware Resource Allocation Scheme With Energy Efficiency and QoS Effectiveness in Wireless Body Area Networks," *IEEE Access* 5: 20763-20776, May 2017
40. L. Wu, D. Wang, X. Zhang, S. Liu, L. Zhang and C. W. Chen, "MLLDA: Multi-level LDA for modelling users on content curation social networks," *Neurocomputing*, Vol. 236, pp. 73-81, May 2017
41. T. Zhao, Q. Liu and C. W. Chen, "QoE in Video Transmission: A User Experience-Driven Strategy," *IEEE Communications Surveys and Tutorials*, Vol. 19, No. 1, pp. 285-302, March 2017
42. B. Liu, Z. Yan and Chang Wen Chen, "Medium Access Control for Wireless Body Area Networks with QoS Provisioning and Energy Efficient Design," *IEEE Trans. Mob. Computing*, Vol. 16, No. 2, pp. 422-434, February 2017
43. J. Wu, C. Yuen, N.-M. Cheung, J. Chen and C. W. Chen, "Streaming Mobile Cloud Gaming Video over TCP With Adaptive Source-FEC Coding," *IEEE Trans. Circuits Syst. Video Technology*, Vol. 27, No. 1, pp. 32-48, January 2017
44. Z. Yan, J. Xue and C. W. Chen, "Prius: Hybrid Edge Cloud and Client Adaptation for HTTP Adaptive Streaming in Cellular Networks," *IEEE Trans. Circuits Syst. Video Technology*, Vol. 27, No. 1, pp. 209-222 January 2017

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