

Chang Wen Chen

CONTACT INFORMATION:

- Professor Chang Wen Chen
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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,

CURRENT RESEARCH INTERESTS:

- Mobile virtual reality, image registrations, mobile media retrieval and adaptation
- Computational aesthetics for optimal photo quality, social media, crowd-sourcing
- Image and video coding technologies and standards, MPEG-4, H.264 AVC, H.264 SVC
- Reliable and secure multimedia streaming over P2P, wireless and ad hoc networks
- 3D video coding and transmission, 3D video analysis, tele-immersive communications
- Distributed source coding for distributed systems and DSP for communications
- Collaborative signal processing and data aggregation for sensor networks

EXPERIENCE:

Academic Experience

- Professor of Computer Science and Engineering
Director, UBMM – Ubiquitous Multimedia Laboratory at UB
State University of New York at Buffalo — January 2008 – Present

- Allen S. Henry Distinguished 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 and Consulting Experience

- 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 2011
- Senior Visiting Researcher
Mobile and Internet Multimedia Group
Microsoft Beijing Research Center — 1999, 2000, 2004, 2006, 2007, 2008, 2009
- Image Compression Consultant
Multimedia Technology Laboratory
David Sarnoff Research Laboratories — 06-08/1998.
- Imaging Science Consultant
Imaging Science Research Laboratory
Eastman Kodak Company — 10/1995-09/1996, 05-08/1995

DISTINCTIONS:

- **Fellow, IEEE (Institute of Electrical and Electronics Engineers)**, for contributions to digital image and video processing, analysis and communications
- **Fellow, SPIE (International Society for Optical Engineering)**, for contributions to electronic imaging and visual communications
- **Editor-in-Chief, IEEE Trans. Circuits and Systems for Video Technology**, 2006 – 2009
- **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 – 2012
- **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

- **UB Exceptional Scholar – Sustained Achievement Award**, State University of New York at Buffalo, 2012
- **Alexander von Humboldt Research Award**, US Senior Scientist category, 2010
- 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

PAPER AWARDS:

- **Best Student Paper Award** at *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)
- **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)
- **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)
- **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)
- Ph.D. Student Ms. Qian Liu was selected as a **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)
- Graduate Student Ms. Jinrong Zhang received the **Best Student Paper Award** from *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)
- Ph.D. Mr. Xinglei Zhu was selected as a **Best Student Paper Award Finalist** from *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)
- **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)
- Ph.D. student Ms. Li FAN was selected as Runner-up to the **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.)
- Ph.D. student Dr. Jiebo Luo was the recipient of **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.)

KEYNOTE/PLANERY SPEECHES:

- **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
- **Distinguished Invited Talk**, *International Conference on Computer Communications and Networks*, August 6, 2008
- **Invited Panelist** on Scalable Video Coding, *2005 SPIE Conf. Visual Communication and Image Processing*, July 2005, Beijing, China
- **Invited Panelist** on Mobile and Internet Video, *1999 International Workshop on Very Low Bit-rate Video Coding*, October 1999, Kyoto, Japan.

MAJOR PROFESSIONAL SERVICES:

1. Editorial Services

- **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 – present
- **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

- **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

- **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
- **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

- **Member, Board of Governors, IEEE Circuits and Systems Society, 2013 – 2015**
- **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**
- **European Research Council, Advanced Grant International Panelist on Systems and Communication Engineering, 2008 – 2012**
- **Panelist and Evaluator, Greece Ministry of Education Research Program Thalys, 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 2002 – Present.**
- **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 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**
- **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, 15 Ph.D. and 20 M.S. thesis committees, September 1996 – Present

MAJOR TEACHING ACTIVITIES

1. 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
- CSE 634 — Advanced Multimedia Systems — Newly updated course, Fall 2008
- CSE 534 — Introduction to Multimedia Systems — New course, Fall 2009, Fall 2010
- CSE 473/573 — Introduction To Computer Vision And Image Processing, Fall 2011, Fall 2012

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, 2000
- EE 478 — Coding Theory and Applications — New course, Fall 1999, 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: (10)

- Jiebo Luo, Ph.D. Degree, Fall 1995, University of Rochester (Fellow, IEEE & SPIE)
Thesis: Low Bit-rate Wavelet-based Image and Video Compression with Adaptive Quantization, Coding and Postprocessing
Current Employer: Dept. of Computer Science (Tenured Professor), University of Rochester, Rochester, NY
- Li Fan, Ph.D. Degree, Fall 2000, 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. (Vice President), Princeton, NJ
- Lei Cao, Ph.D. Degree, Spring 2002, University of Missouri-Columbia
Thesis: Error Resilient Image Coding and Wireless Communications
Current Employer: University of Mississippi (Associate Professor), University, MS
- Jianfei Cai, Ph.D. Degree, Spring 2002, University of Missouri-Columbia
Thesis: Robust Error Control and Optimal Bit Allocation for Image and Video Transmission over Wireless Channels
Current Employer: Nanyang Technological University (Associate Professor and Head of Division), Singapore
- Min Wu, Ph.D. Degree, Fall 2005, 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, Fall 2007, Florida Institute of Technology
Thesis: Multimedia Communications over MIMO Systems
Current Employer: LG Electronics Research Laboratory, (Research Manager) Korea
- Guogang Hua, Ph.D. Degree, Spring 2008, Florida Institute of Technology
Thesis: Distributed Source Coding and Its Applications in Wireless Sensor Networks and Video Compression
Current Employer: Qualcomm Inc., (Research Engineer) San Diego, CA
- Byung Jung Oh, Ph.D. Degree, Fall 2008, Florida Institute of Technology
Thesis: Supporting Multimedia Quality of Services in Wireless Networks
Current Employer: Link Communications, (Research Engineer) Annapolis Junction, MD

- Chaorong Peng, Ph.D. Degree, Fall 2008, Florida Institute of Technology
Thesis: Intelligent Routing Protocols for Mobile Ad Hoc Wireless Networks
- Xinglei Zhu, Ph.D. Degree, Fall 2012, State University of New York at Buffalo
Thesis: Secure and Reliable Multimedia over Wireless Networks
Current Employer: Intel Research (Research Engineer), Santa Clara, CA

M.S. Graduates: (15, as of 2006)

- Whitfield R. Thompson ('95), University of Rochester
- Weiwen Lai ('95), University of Rochester
- Xiaohui Wang ('95), University of Rochester
- Jose Tamez-Pena ('96), University of Rochester
- Zhaohui Sun ('96), University of Rochester
- Songling Hu ('97), University of Missouri-Columbia
- Hongzhi Li ('98), University of Missouri-Columbia
- Jenny Gu ('99), University of Missouri-Columbia
- Yanfeng Xu ('00), University of Missouri-Columbia
- Ursula Washington ('00), University of Missouri-Columbia
- Jian Wang ('02), University of Missouri-Columbia
- Jie Gao ('04), University of Missouri-Columbia
- Sami Almalfouh ('05), Florida Institute of Technology
- Ji Sun Lee ('05), Florida Institute of Technology
- Gonzalo Cabrera ('06), Florida Institute of Technology

6. Ph.D. Students Currently under Supervision (8)

- Shujie Liu, Thesis: 3D Video Compression for Interactive Entertainments, Expected degree date: May 2012 (SUNY-Buffalo)
- Wenyan Yin, Thesis: Semantic-based Video Adaptation for Mobile Networks, Expected degree date: May 2012 (SUNY-Buffalo)
- Qian Liu, Thesis: Next Generation Smart Antenna for Broadband Wireless Video, Expected degree date: May 2013 (SUNY-Buffalo)
- Jingteng Xue, Thesis: Video Streaming under Resource Constrained Environment, Expected degree date: May 2013 (SUNY-Buffalo)
- Panya Chanawangsa, Thesis: Seamless Blending of Natural Video with 3D Graphics Model, Expected degree date: May 2014 (SUNY-Buffalo)
- Jie Hu, Thesis: Mobile Virtual Reality and Applications
Expected degree date: May 2014 (SUNY-Buffalo)
- Yuqi Fan, Thesis: Distributed Multimedia Networking under Cloud Service Environments, Expected degree date: May 2015 (SUNY-Buffalo)
- Yu Liu, Thesis: Media Recommendation with Mobile and Social Networking Augmentations, Expected degree date: May 2016 (SUNY-Buffalo)

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, Omneon Video Networks, Beaverton, OR
- 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 – March 2012, Research in Network Coding for Wireless Multimedia Broadcasting Applications

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: Ph.D. student at Huazhong University of Science and Technology, Wuhan, China
- Ms. Zhenyu Wu, July 2009 – July 2010, Research in Video Transcoding for Mobile Transmission, on leave from University of Electronic Science and Technology
- Prof. Lifang Wu, September 2009 – August 2010, Research in Video Analysis for Tracking Articulated Objects, on leave from Beijing University of Technology
- Prof. Hancheng Lu, April 2010 – April 2011, Research in Network Coding for Efficient Media Delivery over Vehicular Networks, on leave from 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, on leave from Harbin Institute of Technology

9. Graduate Research Mentoring Recognitions

- Ph.D. Student Shujie Liu, Finalist of **Microsoft Research Fellowship**, 2011 (Among 22 selected from 300+ applicants 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 **Superior 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 **Superior Graduate Achievement Award**, (1998), University of Missouri-Columbia Graduate College.

PUBLICATIONS (4 Books, 9 Book Chapters, 65 Journal Articles, 165 Conf. Papers)

Books:

1. A. Bovik, C.W. Chen and D. Goldgof, *Advances in Image Processing and Understanding: A Festschrift for Thomas S. Huang*, World Scientific Publisher, June, 2001.
2. C.W. Chen and Y. Q. Zhang, editors, *Visual Information Representation, Communication, and Image Processing*, Marcel Dekker Publisher, New York, NY, May, 1999.
3. S. Lian, Z. Li and C. W. Chen, editors, *Intelligent Multimedia Transmission: Techniques and Applications*, Springer Verlag Publisher, Heidelberg, Germany, July 2009
4. X. Jiang, M. Y. Ma and C. W. Chen, *Mobile Multimedia Processing*, Springer Verlag Publisher, Heidelberg, Germany, 2010

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. 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, 2012
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