

Sen-ching Samson Cheung

Dept. of Electrical and Computer Engineering and Center for Visualization & Virtual Environments, University of Kentucky, Lexington, KY 40507

Phone: 1-859-327-0826 (Mobile), 1-859-218-0299 (Office) Fax: 1-859-257-1505

Email: sccheung@ieee.org Web: <http://www.vis.uky.edu/mialab>

Highlights of curriculum vita as of May 2015:

Current positions: Blaize Family Associate Professor, Department of Electrical & Computer Engineering and Center for Visualization & Virtual Environments, University of Kentucky (UK). Adjunct faculty, Joint Institute of University of Michigan-Shanghai Jiao Tong University (UM-SJTU).

Past positions: Assistant Professor at UK ('04-'10), Computer Scientist at Lawrence Livermore National Laboratory ('02-'04), Ph.D. candidate in UC Berkeley ('98-'02), Research Engineer at VTEL ('95-'98)

Publications: over 2182 citations, h-index=21, i10-index=38 ([Google Scholar](#)). Over 87 publications, including 17 journal papers published, 5 book chapters, 51 refereed conference publications, 11 international standard contributions, 2 U.S. patents and 4 IP disclosures.

Awards: Blazie Family Professor (2013-present), Finalists in Provost's Outstanding Teaching Award (2010), R&D 100 Award (2006, with C. Kamath et al.), Ralph E. Powe Junior Faculty Enhancement Award (2005), Best Poster Award at British Machine Vision Conference (2005). Senior member of both IEEE and ACM.

Funding: Funding exceeds US\$5.0 million total (PI & co-PI), including more than US\$2.1 million as PI.

Research Areas: (1) Multimedia Therapy for Autism and related disorders; (2) Anonymity, Cryptography and Stenography in the context of Signal-based Privacy Protection; (3) Optimal design of Distributed Heterogeneous Camera Networks; (4) Visual Object Identification, Tracking and Segmentation.

Teaching: 1 undergraduate course at UM-SJTU, 10 graduate and 19 undergraduate courses in Electrical & Computer Engineering since fall 2004. Average teaching evaluation: 3.4/4.0; Average course rating: 3.3/4.0.

Student Advising: Primary advisor of 2 post-doctoral students, 9 doctoral students (4 successfully defended), 13 master students (12 successfully defended), 9 undergraduate and 1 high-school students.

Professional Service: Associated Editor of IEEE Transactions on Information Forensics and Security, IEEE Transactions of Multimedia, ASA Journal on Statistical Analysis and Data Mining, Signal Processing: Image Communications and EURASIP Journal on Information Security. Lead guest editor of special issues on privacy issues for IEEE Transactions on Information Forensics and Security (2012) and EURASIP Journal of Information Security (2009). Technical committee member of Information Forensics & Security in IEEE Signal Processing Society, Multimedia Signal Processing of IEEE Signal Processing Society, Multimedia Systems in IEEE Circuits and Systems Society, and Multimedia Communications in IEEE Communication Society. Area or Session Chairs in 15 conferences, and TPC Members in 120 conferences. Contributors to International Standard Bodies ISO and ITU-T. Panel reviewer for NSF (7 times from 2004-2014).

Awards and Newsworthy

- Blazie Family Professor of Electrical and Computer Engineering (July, 2013 - present)
- Award of NSF Autism Grant featured in UKNow (September 19, 2012)
[\[http://uknow.uky.edu/content/engineering-professor-awarded-800000-nsf-grant-autism-therapy-research\]](http://uknow.uky.edu/content/engineering-professor-awarded-800000-nsf-grant-autism-therapy-research)
- Autism research featured in Chronicle of Higher Education (April 29, 2012)
[\[http://chronicle.com/article/A-Professors-Son-Leads-Him-to/131734/\]](http://chronicle.com/article/A-Professors-Son-Leads-Him-to/131734/)
- Senior member of ACM (Association for Computing Machinery, 2011)
- One of five finalists of the university-wide Provost's Outstanding Teaching Award (2010)
[\[http://www.uky.edu/Provost/APFA/Awards_Honors/\]](http://www.uky.edu/Provost/APFA/Awards_Honors/)
- Senior member of IEEE (Institute of Electrical and Electronics Engineers, 2007)
- Research work featured in Research Channel documentary titled "Surveillance Privacy Protection" (2006)
[\[http://www.researchchannel.org/prog/displayevent.aspx?rID=5036&fD=1865\]](http://www.researchchannel.org/prog/displayevent.aspx?rID=5036&fD=1865)
- Work in Scientific Data Mining at Lawrence Livermore National Lab won R&D 100 Award (2006)
[\[https://computation.llnl.gov/casc/awards/sapphire_rd100.html\]](https://computation.llnl.gov/casc/awards/sapphire_rd100.html)
- Research work featured in a news article from Quadrangle, magazine of the University of Kentucky College of Engineering, titled "Privacy: the other side of security" (2006)
[\[http://www.engr.uky.edu/comm/documents/winter2006quad.pdf\]](http://www.engr.uky.edu/comm/documents/winter2006quad.pdf)
- Grant from Department of Homeland Security featured in University of Kentucky news
[\[http://news.uky.edu/news/display_article.php?artid=478\]](http://news.uky.edu/news/display_article.php?artid=478)
- Dissertation Work featured in a news article from Red Herring Magazine titled "Video Search's Buried Treasure" (2006) [\[http://www.redherring.com/Home/15224\]](http://www.redherring.com/Home/15224)
- Finalist of DARPA Microsystems Technology Office (MTO) Young Faculty Award (2006)
- Ralph E. Powe Junior Faculty Enhancement Award from Oak Ridge Associated Universities (2005)
[\[http://www.oraui.org/news/releases/2005/fy05-37.htm\]](http://www.oraui.org/news/releases/2005/fy05-37.htm)
- Best Poster Award in British Machine Vision Conference BMVC (2005)
- UC Berkeley Candidate for Microsoft Research Fellowship and Intel Research Fellowship (2000)
- Public Release of Matching Pursuit Video Codec with more than 5000 downloads (1999-2001)
- Recipient of National Science Foundation Fellowship (1992-1994)
- Cray Research Scholarship (1990-1992)
- Sophomore Medalist (first in sophomore class of University of Washington) (1989)
- Alcoa Foundation Scholarship (1989-1990)

Invited Talks

- University of Winnipeg (Host: Professor Pradeep Atrey, Jan. 2014)
- National Tsing Hwa University (Host: Professor Chia-Wan Lin, Nov. 2013, Dec. 2011, Dec. 2007)
- Anyang Normal University, Anyang, China (Host: Professor Xiaoyi Yu, Oct. 2012)
- University of Southern California (Host: Professors C.-C. Jay Kuo & Shri Narayanan, Dec. 2011)
- Dong Hwa University (Host: Professor Mei-Juan Chen, Dec. 2011, Dec. 2007)
- National Taiwan University (Host: Professor Shiao-Yi Chien, Dec. 2011, Dec. 2007)
- Hong Kong University of Sciences and Technologies (Host: Professor Oscar Au, Dec. 2011, Dec. 2007)
- University of Siena, Italy (Host: Prof. Mauro Barni, July 2011)
- Health System Institute, Georgia Institute of Technology, Atlanta (Host: Prof. Gregory Abowd, Sept. 2010)
- Institute of Automation, Chinese Academy of Sciences, Beijing, China (Host: Dr. Kaiq Huang, June 2009)
- Microsoft Research Asia, Beijing, China (Host: Dr. Bin Zhu, June 2009)
- Zhejiang University, Hangzhou, China (Host: Professor Zhigeng Pan, June 2009)
- HP Labs, Palo Alto CA (Host: Dr. Wai-Tian Tan, March 2008)
- FX Palo Alto Laboratory, Inc. (Host: Dr. Larry Rowe, March 2008)
- University of California, Merced (Host: Professor Shawn Newsam, March 2008)
- Lawrence Livermore National Laboratory (Host: Dr. Chandrika Kamath, March 2008)
- Osaka University (Host: Professor Noboru Babaguchi, Dec. 2007)
- Hong Kong Chinese University (Host: Professor Ming-Hwa Chen, Dec. 2007)
- HP Labs Japan (Host: Dr. Gene Cheung, Dec. 2007)
- Hong Kong Chinese University (Host: Professor Ming-Hwa Chen, Dec. 2007)
- University of Washington (Host: Professor Ming-Ting Sun, Sept. 2007)
- DARPA Young Faculty Award Workshop (Nov. 2006)
- Privacy Research in Vision Workshop of IEEE CVPR (Host: Professor Terrance Bolt, June. 2006)
- University of Washington (Host: Professor Ming-Ting Sun, Sept. 2005)
- National Taiwan University (Host: Professor Jia-Ling Wu, Jan. 2005)
- Hong Kong Polytechnic University (Host: Professor Wan-Chi Siu, October 2004)
- Institute for Infocomm Research, National University of Singapore (Host: Professor Qi Tian, October 2004)
- Thomson Electronics Lab, New Jersey (Host: Dr. Yin Peng, October 2004)
- Multimedia Workshop at Columbia University (Host: Professor Shih-Fu Chang, June 2004)

Sponsored Research Projects (sorted by end-date)**As Principal Investigator (Total = \$2,143,799):**

1. *Video Interface for Behavioral Evaluation*
Co-P.I.: None
Agency: National Science Foundation (Award #1444022)
Amount: \$50,000 (July 2014 – December 2014)

2. *Novel visualization and affect-sensitive digital storybook systems for enhancing reading comprehension and literacy skills of children with ASD*
P.I.: Radhika Santhanam, Karla Conn Welch, Robert Pennington
Agency: University of Kentucky and University of Louisville
Amount: \$50,000 (January 2014 – December 2014)

3. *SHB:Type II(INT): Synthesizing Self-Model and Mirror Feedback Imageries with Applications to Behavior Modeling for Children with Autism*
Co-P.I.: Ramesh Bhatt, Lisa Ruble, and Neelkamal Soares
Agency: National Science Foundation (Award #1237134)
Amount: \$798,912 (September 2012 – August 2016)

4. *Privacy Protection of Multimedia Processing*
Co-P.I.: None
Agency: National Science Foundation (Award #1018241)
Amount: \$357,583 (August 2010 – July 2013)

5. *Utilizing Video Data to Evaluate Childhood Disruptive Behavior Disorders*
Joint P.I.: Nealkamal Soares and Brea Perry
Agency: Center for Clinical and Translational Science, University of Kentucky
Amount: \$12,191 (January 2011 – December 2011)

6. *Privacy Protecting Video Surveillance*
Co-P.I.: Ruigang Yang and Michael Hail
Agency: Department of Homeland Security (Award # 2004-IJ-CK-K055)
Amount: \$694,613 (January 2006 – December 2009)

7. *Industry Collaboration Fund*
Co-P.I.: None
Companies: Washington Software Incorporated and others
Amount: \$35,500 (July 2008 - present)

8. *Privacy Protecting Video Surveillance*
Co.-P.I.: None
Agency: Oak Ridge Associated Universities (ORAU)
Amount: \$5,000 (October 2005 – October 2006)

9. *University of Kentucky Startup Fund*
Co.-P.I.: None
Agency: College of Engineering, University of Kentucky
Amount: \$140,000 (August 2004 – August 2006)

As co-Principal Investigator (Total = \$2,859,757):

1. *Visual Scan Patterns in Response to Self- and Other-Modeled Emotion in Children with Autism Spectrum Disorders (ASD)*
P.I.: Theodore Hutman
Agency: UCLA Clinical and Translational Science Institute Scholars Award
Amount: \$30,000 (September 2013 – August 2014)

2. *Visualization for Training and Simulation in Night Environments*
P.I.: Bruce Walcott
Agency: Lockheed Martin
Amount: \$982,425 (January 2012 – August 2013)

3. *Privacy enabled video capture technologies of children's behavior*
P.I.: Xiaoyi Yu (Peking University, China)
Agency: National Natural Science Foundation (China)
Amount: ~\$15,000 (January 2011 – December 2011)

4. *Large Rapidly Deployable Immersive Visualization for Training and Simulation in Urban Terrains*
P.I.: Bruce Walcott
Agency: United States Army
Amount: \$910,332 (May 2006 – September 2010)

5. *Anti-Sniper Infrared Targeting Systems (ASITS) Phase III*
P.I.: Daniel Lau
Company: M2 Technologies Inc.
Amount: \$922,000 (January 2007 – July 2008)

As Senior Personnel:

1. *Children with Autism Spectrum Disorders Responses to Self/Other Modeled Emotion*
P.I.: Neelkamal Soares
Agency: Geisinger Medical System
Amount: \$19,999 (August 2014 – July 2015)

2. *Immersive and Interactive Spaces – NSF EPSCoR*
P.I.: Kevin Donohue
Agency: National Science Foundation
Amount: \$2,700,000 (June 2005 – May 2008)

3. REU Site: Electrical & Computer Engineering at the University of Kentucky
P.I.: Ingrid St. Omar
Agency: National Science Foundation
Amount: \$259,365 (March 2006 – February 2008)

Students Supervised

<u>Doctoral</u>	<u>Defended</u>	<u>Dissertation Title</u>
Ju Shen	June 10, 2014	Computational Multimedia for Video Self Modeling
Ying Luo	May 30, 2014	Efficient Anonymous Biometric Matching in Privacy-Aware Environments
Jian Zhao	Aug., 2011	Camera Planning and Fusion in Heterogeneous Camera Networks
Vijay Venkatesh Mahalingam	Apr., 2010	Digital In-painting Algorithms and Evaluation

<u>Master</u>	<u>Defended</u>	<u>Thesis Title</u>
Hasan Sajid	July 30, 2014	A Universal Background Subtraction System
Yuqi Zhang	June 5, 2014	Robomirror: a Mirror Display with a Robotic Camera
Wanxin, Xu	April 22, 2013	Facial Expression Synthesis
Po-Chang Su	March 1, 2013	A robust RGB-D SLAM System for 3D Environment with Planar surfaces
Prashanth Rao Periketi	July, 2011	Gaze Estimation Using Sclera and Iris Extraction
Anusha Raghunathan	Apr., 2011	Evaluation of Intelligibility and Speaker Similarity of Voice Transformation
Edwin Sathiyamoorthy	Mar., 2011	Global-change Reactive Background Subtraction
Viswajith Karapoondi Nott	Mar., 2009	Joint Visual and RFID Tracking System
Jithendra Paruchuri	Apr., 2008	Joint Optimization of Data Hiding and Compression for Video Privacy Preservation
Jian Zhao	Feb., 2008	Optimal Camera Network Configurations for Visual Tagging
Jayashri Chaudhari	Nov., 2007	Privacy Protection for Lifelog Video System
Nan Hu	Apr., 2007	Secure Image Processing

<u>Other trainees</u>	<u>Degree (Year)</u>	<u>Project</u>
Arnold Jayoma	B.S. EE (~2013)	Children's Book Image Enhancement (REU 2011)
Geo Stotts	B.S. EE (~2013)	Secure Image Processing (REU 2011)
Larry Profitt	B.S. EE (2009)	Audio Privacy Protection (2009)
Greg Schardein	B.S. EE (2008)	Calibration of RFID Tracking System (2008)
Felix Setyawan	B.S. EE (2008)	Multi-camera Visual Tracking System (2008)
Motoki Mizoguchi	High School (2008)	Gaze Measurement for In-painting Evaluation (2008)
Van Yadeck	B.S. EE (2006)	Blind Source Separation in Microphone Array (2006)
James Senders	B.S. EE (2005)	Audio Segmentation in Life-log System (REU, 2005)
Mamode Ufomata	B.S. EE (2005)	Image Segmentation for Welding (2005)

Teaching Experience

Introduction to Electric Circuits – UM-SJTU: Su'09; UK: Sp'10, Sp'12, Sp'13, Sp'14, Sp'15

- This course is an introductory circuit course taught at UK and UM-SJTU. Topics include basic concepts of voltage and current; Kirchhoff's voltage and current laws; Ohm's law; voltage and current sources; Thevenin and Norton equivalent circuits; DC and low frequency active circuits using operational amplifiers, diodes, and transistors; small signal analysis; energy and power; time- and frequency-domain analysis of RLC circuits; basic passive and active electronic filters as well as laboratory experience with electrical signals and circuits.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee211/index.html>

Cybersecurity – Sp'14, Sp'15

- This is an undergraduate/graduate-level course that provides an up-to-date survey of developments in cybersecurity through study of the theoretical foundation and hands-on practical implementation with DeterLab. Topics covered will include basic security technology, cryptography, security management, risk assessment, operations and physical security, software and network security, as well as ethical and legal issues.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee599/index.html>

Probabilistic Graphical Model – F'06, F'08, F'09, F'12, F'13, F'14

- This is a graduate-level course that covers the fundamentals in Probabilistic Graphical Models. Major topics include various types of graphical models, junction tree algorithm, belief propagation, model selections, and non-parametric techniques. Applications in computer vision, communications, and data mining are discussed.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee639/index.html>

Computer and Switching Networks – F'08, F'09, F'10, F'12, F'13, F'14

- This course is an introductory survey of the design and implementation of computer networks. We will focus on the concepts and fundamental design principles that have contributed to the global Internet's scalability and robustness and will survey the underlying technologies that have led to the Internet's phenomenal success.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee586/index.html>

Stochastic System – Sp'11, Sp'13

- This is a graduate-level course on random processes, which builds on a first-level (undergraduate) course on probability theory. It provides a measure-theoretic introduction of probability theory and random processes, and also discusses applications to communications, signal processing and control systems engineering.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee640/index.html>

Intelligent Visual Surveillance – F'10

- This course is primary for master and PhD students to survey the state-of-the-art key technologies behind the new field of Intelligent Video Surveillance, including background subtraction, crowd and traffic analysis, object tracking, activities and event detection, multi-camera calibration, placement and planning, as well as security and privacy. The focus is on the core mathematical concepts such as probabilistic graphical models, image features, multi-view geometry that enable these new technologies.
- Course website: http://www.vis.uky.edu/~cheung/courses/ee639_fa10/index.html

Signals and Systems II (Undergraduate) – Sp'05, F'05, F'06, F'06, Sp'07

- This undergraduate-level course is a continuation of the analysis of signals and linear systems with an emphasis on feedback and discrete-time systems. Topics include the Laplace and Z-transforms, state-variable, discrete-time signal and system, analysis and design of digital filters, discrete and fast Fourier Transform.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee422G/sp07.html>

Signals and Systems I (Undergraduate) – F'07

- This undergraduate-level core course provides an introduction to some of the essential modeling and analysis tools used by practicing engineers. The concepts covered include discrete and continuous LTI systems, convolution, Fourier series and transforms, Laplace transforms, modulation and bandwidth concepts.
- Course website: <http://www.vis.uky.edu/~cheung/courses/ee421G/fa07.html>

Multimedia Information System – F'04

- This graduate-level course introduces important technologies and standards in building Multimedia Information Systems (MIS). The emphasis is on using signal processing and pattern recognition techniques for representing, coding, searching, visualizing and protecting multimedia information.
- Course website: http://www.vis.uky.edu/~cheung/courses/ee639_fall04/fall04.html

Professional Activities

- Associate Editor of
 - IEEE Transactions on Information Forensics and Security since 2013
 - Signal Processing: Image Communications since 2011
 - IEEE Transactions of Multimedia (2011-2013)
 - American Statistical Association Journal on Statistical Analysis and Data Mining since 2009.
 - EURASIP Journal on Information Security since 2008
- Lead Guest Editor of Special Issue on
 - Privacy and Trust Management in Cloud and Distributed Systems in IEEE Transactions on Information Forensics and Security (2012)
 - Enhancing Privacy Protection in Multimedia Systems in EURASIP Journal of Information Security (2009)
- Member of
 - Multimedia Signal Processing Technical Committee, IEEE Signal Processing Society (since 12/13)
 - Information Forensics & Security Technical Committee, IEEE Signal Processing Society (since 10/12)
 - Multimedia Communications Technical Committee, IEEE Communication Society, (since 11/10)
 - Multimedia Systems & Applications Technical Committee, IEEE Circuits and Systems Society (since 9/07)
- Chair of
 - Demonstration Chair of IEEE Workshop on Information Forensics and Security (WIFS 2015)
 - TPC Area on Image and Video Biometric Analysis for IEEE International Conference on Image Processing (ICIP 2015)
 - Information forensics and Security Track for IEEE China Summit and International Conference on Signal and Information Processing 2015 (ChinaSIP 2015)
 - TPC Area on for IEEE International Conference on Multimedia and Expo (ICME 2015)
 - Special Session on “3D Imaging for health monitoring and interventions” in IEEE International Conference on Multimedia and Expo (ICME 2015)
 - Session on “Multimedia Encryption, Secure Computations, and Data Hiding” in IEEE International Conference on Acoustics, Sound, and Signal Processing 2014 (ICASSP 2014)
 - TPC Area on Multimedia Security, Privacy and Forensics for IEEE International Conference of Multimedia and Expo 2013 (ICME 2013)
 - Publicity (US) for the Fifth IEEE/ACM International Conference of Distributed Smart Cameras (ICDSC 2011)
 - Session on “Techniques and Applications for Smart Cameras (part II)” in Fourth IEEE/ACM International Conference of Distributed Smart Cameras (ICDSC 2010)
 - Session on “Encryption, Authentication and Identification” in IEEE International Conference of Multimedia and Expo 2009 (ICME 2009)
 - Program Area (Privacy Issues) IEEE 5th International Conference on Advanced Video and Signal Based Surveillance (AVSS 2008)
 - Special Session on Privacy Protection of Visual Information in IEEE International Conference on Image Processing (ICIP 2008)
 - Special Invited Session on Video Surveillance in IEEE International Conference on Circuits and Systems (ISCAS 2008)
 - Poster Session of Computer Vision for Interactive and Intelligent Environments (CV4IIE 2005).
 - Session on Watermarking and Multimedia Processing in ACM Multimedia 2004.
- NSF Panel reviewer for the Directorate for Computer and Information Science and Engineering (CISE): (Nov 2004, July 2012, Feb 2014, Oct 2014) and the Directorate for Engineering (Sep 2013, Jan 2014, Feb 2014)
- Technical Program Committee Member of
 - SPIE Defense, Security + Sensing, Biometric and Surveillance Technology for Human and Activity Identification X: 2012
 - IEEE International Workshop on Information Forensics and Security (WIFS): 2012, 2013
 - IEEE International Conference on Multimedia & Expo (ICME): 2005, 2010, 2011

- IEEE International Conference on Circuits and Systems (ISCAS): 2008 - 2011
- IEEE 6th International Conference on Advanced Video and Signal Based Surveillance (AVSS) 2009, 2010
- IEEE SP Society International Workshop on Multimedia Signal Processing (MMSP 2008, 2011)
- IEEE First International Workshop on Multimedia Analysis and Processing (IMAP 2007-2008)
- IEEE International Conference on Advanced Information Networking and Applications (AINA-07)
- IADIS International conference WWW/Internet 2005
- ACM Multimedia 2004
- IEEE International Conference on Communications, Circuits and Systems (ICCCAS 2004)
- Representative of U.C. Berkeley in ISO Moving Picture Expert Group (MPEG) (1998)
- Company Representative in ITU (an international standard organization in telecommunication chartered by United Nation) Video Coding Expert Group (1995-1997)
- Reviewers for
 - IEEE International Conference on Image Processing (ICIP 2006-2010)
 - IEEE International Conference on Computer Vision and Pattern Recognition 2006 (CVPR 2006)
 - Advanced Concepts for Intelligent Vision Systems 2006 (ACVIS 2006)
- Regular reviewer for
 - EURASIP Journal on Applied Signal Processing
 - IEEE Transactions On Circuits and Systems for Video Technology
 - IEEE Transactions On Image Processing
 - IEEE Transactions On Multimedia
 - IEEE Transactions on Signal Processing
 - IEEE Signal Processing Letters
 - IEEE Transactions On Circuits and Systems II
 - ACM Transactions on Multimedia Computing, Communications, and Applications
 - Morgan Kaufmann Publishers

Patents and Inventions (total=8)

1. Cheung, S.-C. and M. Chung. 2007. Efficient and Robust Identification of Partial Copies in Digital Video. University of Kentucky Intellectual Property 1479. United States Patent Application in preparation.
2. Cheung, S.-C. and J. Chaudhari. 2007. Audiovisual Privacy Protection for Portable Video Recording Devices. University of Kentucky Intellectual Property 1477. United States Patent Application in preparation.
3. Cheung, S.-C., J.K. Paruchuri and W. Zhang. 2007. Hiding Privacy Information in Surveillance Video. University of Kentucky Intellectual Property 1459. United States Patent Application in preparation.
4. Cheung, S.-C., N. Hu, and T. Nguyen. 2006. Secret Multi-Party Image Processing. University of Kentucky Intellectual Property 1418. United States Patent Pending.
5. Bagherjeiran, C. Harrison, E. Cantu-Paz, S.-C. Cheung, A. Gezahegne, N.-A. Tang, C. Kamath, C. Baldwin and I. Fodor. 2005. Sapphire-GAT Release version 1.0. Lawrence Livermore National Laboratory Invention IL# CP0108.
6. Cheung, S.-C. and C. Kamath. 2005. Detection of Moving Objects In A Video. Lawrence Livermore National Laboratory Invention IL#11330. United States Patent Pending.
7. Cheung, S.-C., D. Drizen, and P. Haskell. 2001. Video postfiltering with motion-compensated temporal filtering and/or spatial-adaptive filtering. United States Patent 6,178,205.
8. Neff, R., A. Zakhor, and S.-C. Cheung. 1998. *Matching-Pursuit Video Coding System*. Office of Technology Licensing, University of California, Berkeley. UCB Case No.: B96-009

Publications

Peer-reviewed Journal Articles (submitted or planned, total=3)

1. Wang, Z., Y. Luo, and S.-C. Cheung. 2015. Game-theoretic collusion deterrence for secure multiparty computation. Submitted to **IEEE Transactions on Information Forensics and Security**.
2. Sajid, H. and S.-C. Cheung. 2015. A universal background subtraction system. Submitted to **IEEE Transactions on Pattern Analysis and Machine Intelligence**.
3. Luo, Y. and S.-C. Cheung. 2014. Auditable Video Surveillance. To be submitted to **IEEE Transactions on Information Forensics and Security**.

Peer-reviewed Journal Articles (accepted or published, total=17)

4. Shen, J., C. Ti, A. Raghunathan, S.-C. Cheung, and R. Patel. 2014. Automatic Video Self Modeling for Voice Disorder. In **Multimedia Tools and Applications** in May, 2014. DOI: 10.1007/s11042-014-2015-1 <http://www.vis.uky.edu/~cheung/doc/mta2014.pdf>
5. Wang, Z. and S.-C. Cheung. 2014. Protecting Privacy in Signal Processing. **IEEE Potentials**, vol. 33, issue 3, pp. 32-37. <http://www.vis.uky.edu/~cheung/doc/potential14.pdf>
6. Zhao, J., D. Hawkes, R. Yoshida, and S.-C. Cheung. 2013. Approximate techniques in solving optimal camera placement problems. **International Journal of Distributed Sensor Networks**. Vol. 2013(2013) Article ID 241913. <http://www.hindawi.com/journals/ijdsn/aip/241913/>
7. Shen, J., S.-C. Cheung, and J. Zhao. 2013. Virtual Mirror By Fusing Depth and Color Cameras. **IEEE Transactions on Image Processing**, vol. 22, issue 9, pp. 1-16. <http://www.vis.uky.edu/~cheung/doc/tip2013.pdf>.
8. Zhao, J. and S.-C. Cheung. 2012. Human Segmentation by Geometrically Fusing Visible-light and Thermal Imaginary. **Multimedia Tools and Applications**. DOI 10.1007/s11042-012-1299-2. <http://www.vis.uky.edu/~cheung/doc/mta2012.pdf>
9. Nguyen, K., T. Nguyen and S.-C. Cheung. 2011. On Reducing Communication Energy Using Cross-Sensor Coding Technique. **International Journal on Distributed Sensor Networks**, vol. 2011, Article ID 837128, 12 pages, 2011. doi:10.1155/2011/837128. <http://www.hindawi.com/journals/ijdsn/2011/837128/>
10. Paruchuri, J., S.-C. Cheung and M. Hail. 2009. Video data-hiding for managing privacy information in surveillance systems. **EURASIP Journal on Information Security**, Volume 2009, Article 236139. <http://downloads.hindawi.com/journals/is/2009/236139.pdf>
11. S. Yee, Y. Lou, J. Zhao and S.-C. Cheung. 2009. Anonymous Biometric Access Control. **EURASIP Journal on Information Security**, Volume 2009, Article 865259. <http://downloads.hindawi.com/journals/is/2009/865259.pdf>
12. M., V. Venkatesh, S.-C. Cheung and J. Zhao. 2009. Efficient Object-Based Video Inpainting. In **Pattern Recognition Letter, Special Issue on Video-based Object and Event Analysis**, Volume 30, Issue 2, January 2009, pp. 168-179. <http://dx.doi.org/10.1016/j.patrec.2008.03.011>
13. Nguyen, K., T. Nguyen and S.-C. Cheung. 2009. Video Streaming with Network Coding. In **Journal of Signal Processing Systems**, DOI: 10.1007/s11265-009-0342-7, February 2009. <http://www.vis.uky.edu/~cheung/doc/jsps08.pdf>
14. Zhao, J., S.-C. Cheung and T. Nguyen. 2008. Optimal Camera Network Configurations for Visual Tagging. In **IEEE Journal on Selected Topics in Signal Processing**, Volume 2, Number 4, August, 2008, pp. 464-479. <http://www.vis.uky.edu/~cheung/doc/jstsp08v3.pdf>
15. Tullimas, S., T. Nguyen, R. Edgecomb, S.-C. Cheung. 2008. Multimedia Streaming Using Multiple TCP Connections. In **ACM Transactions on Multimedia Computing, Communications and Applications** Volume 4, Issue 2, May 2008, pp. 12:1-12:20. <http://www.vis.uky.edu/~cheung/doc/tomccap08.pdf>

16. Nguyen, T., K. Kolazhi, R. Kamath, S.-C. Cheung, D. Tran. 2008. Efficient Multimedia Distribution in Source Constraint Networks. In **IEEE Transactions on Multimedia**, Volume 10, Issue 3, April 2008, pp. 523-537. <http://www.vis.uky.edu/~cheung/doc/multimedia07.pdf>
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