

Chiou-Ting Candy Hsu

Professor

[Department of Computer Science](#)

[National Tsing Hua University](#)

Hsinchu, Taiwan, R.O.C.

Room 623, Delta Building

Tel: +886-3-5715131 ext. 42960

Fax: +886-3-5731201

Email: cthsu at cs.nthu.edu.tw

Honors

- [ISI Citation Classic Award](#), 2001
- [Distinguished Teaching Award](#), National Tsing Hua University, 2002
- Thesis Supervision
 - [Good Master's Thesis Award](#), [IPPR](#), 2016 (Student: Li-Hsien Lu)
 - [Best Paper Award](#), CVGIP 2011 (Student: Kai-Wen Luo, Kuei-Hua Chen, and Yi-Lei Chen)
 - [Good Phd Thesis Award](#), [IPPR](#), 2008 (Student: Jue-Yu Lee)
 - [Best Master's Thesis Award](#), College of EECS, National Tsing Hua University, 2005 (Student: J. W. Tung)
 - [Good Master's Thesis Award](#), Institute of Information and Computing Machinery, 2004 (Student: C. C. Cheng)
 - [College Student Research Award](#), National Science Council, 2003 (Student: Y. X. Weng)
 - [Master's Thesis Award](#), National Science Council, 2003 (Student: M. H. Hsieh)
 - [Best Master's Thesis Award](#), College of EECS, National Tsing Hua University, 2003 (Student: M. H. Hsieh)
 - [Best Student Paper Award](#), CIE Engineering Students Paper Contest in Electrical Engineering Group, 2001 (Students: M. C. Shih and Y. X. Chou)
 - [Good Student Paper Award](#), CIE Engineering Students Paper Contest in Electrical Engineering Group, 2001 (Students: Y. S. Tsai, M. H. Hsieh and Y. N. Chien)
- Contest Award
 - [2nd Place Award](#), ACCV Workshop on Driver Drowsiness Detection from Video 2016 (Student: Tun-Huai Shih)
 - [3rd Place Award](#), Utchzone Machine Vision Prize, 2012 (Students: H.W. Kung, W.R. Sie, Y.S. Wang, and C.J. Chou)
 - [3rd Place Award](#), Utchzone Machine Vision Prize, 2011 (Students: Y.H. Tu, Y.H. Lai and C.H. Chien)

Publications

Teaching

- CS 3332 [Probability](#) (Spring 2016-2018)
- CS 4520 Introduction to Image Processing (Fall 2008, 2010-2017)
- CS 5540 Pattern Recognition (Spring 2007-2015, 2017)
- CS 3332 Probability (Spring 2016)
- CS 2334 Linear Algebra (Fall 1999-2001, 2005-2007, 2012-2014)
- CS 2336 Discrete Mathematics (Spring 2009-2012)
- CS 3532 Introduction to DSP (Fall 2002-2007)

- CS 6531 Algorithms for Image Analysis (Spring 2004, 2006)
 - CS 3331 Numerical Methods (Fall 2003, 2004)
 - CS 3334 Engineering Mathematics (Fall 2000-2002)
 - CS 5531 Data Compression (Spring 2000-2003)
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Research Interests

- Image Analysis and Recognition
 - [Semantic Image Segmentation](#)
 - Facial Image Analysis (e.g., [Expression Recognition](#), Age Estimation, Emotion Recognition)
 - [Tensor Completion](#), [Salient Object Detection](#), [Ridge Network Detection](#)
 - Image Processing
 - De-weathering (e.g. [Dehazing](#), [Rain removal](#))
 - [Color Transfer](#), [Exposure Fusion](#)
 - Content-Based Multimedia Retrieval
 - Relevance Feedback, Highlight Detection for Sports Video
 - Digital Forensics
 - [Recompression Detection](#), [Tamper Detection](#)
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Academic Activities

- Associate Editor
 - [EURASIP Journal on Image and Video Processing](#), Nov. 2015 - present
 - [Journal of Visual Communication and Image Representation](#), May 2015 - present
 - [IEEE Transactions on Information Forensics and Security](#), April 2012 - April 2015
 - [Interdisciplinary Information Sciences \(IIS\)](#), July 2013 - present
 - [Advances in Multimedia](#), Aug 2006 - March 2012
- Visiting Scholar
 - [Tanaka Research Group](#), [Tohoku University](#), Sendai, Japan, Feb. 2010
 - [MAST](#), [University of Maryland](#), College Park, MD, USA, Sep 2009 - Jan 2010
 - [Microsoft Research Asia](#), Beijing, China, July 2006 - Sep 2006
 - [DVMM Lab](#), [Columbia University](#), New York, USA, March 2005 - Aug 2005
- Technical Committee
 - Elected Member, [IFS-TC](#), IEEE Signal Processing Society, 2013-2015
 - Elected Member, [APSIPA IVM-TC](#), 2013-2016
- Student Activities Chair
 - [IEEE Taipei Section](#), 2005-2006
- Program Committee
 - Proceedings Chair
 - [The 3rd International Conference on Information Technology: Research and Education \(ITRE 2005\)](#), Hsinchu, Taiwan, June 2005
 - The 3rd IEEE Pacific-Rim Conference on Multimedia (PCM), 2002
 - Publicity Chair
 - [IEEE Pacific-Rim Symposium on Image and Video Technology \(PSIVT 2006\)](#), Hsinchu, Taiwan, Dec. 2006
 - Finance Chair
 - [The 4th International Conference on Cloud Computing Technology Science \(CloudCom 2012\)](#), Taipei, Taiwan, Dec. 2012
 - [The 13th Asia-Pacific Computer Systems Architecture Conference \(ACSAC 2008\)](#), Hsinchu, Taiwan, Aug. 2008
 - [International Conference on Parallel and Distributed Systems \(ICPADS 2007\)](#), Hsinchu, Taiwan. Dec. 2007
 - PC Member

- [International Conference on University Basic computers Education and eLearning \(iCube 2011\)](#), Taipei, Dec. 2011
 - [International Conference on University Basic computers Education and eLearning \(iCube 2010\)](#), Taipei, Dec. 2010
 - [International Workshop on Multimedia Analysis and Processing \(IMAP 2007\)](#), Honolulu, Hawaii, USA, Aug. 2007
 - [International Conference on Image and Video Retrieval \(CIVR 2005\)](#), Singapore, July 2005
 - [Visual Communications and Image Processing \(VCIP 2005\)](#), Beijing, China, July 2005
 - [Conference of Electronic Imaging and Multimedia Technology IV at Photonics Asia 2004](#), Beijing, China, Nov. 2004
 - The 3rd IEEE Pacific-Rim Conference on Multimedia (PCM), 2002
 - International Conference on Parallel and Distributed System (ICPADS), 2002
 - SPIE Conference on Visual Communications and Image Processing (VCIP), San Jose, California, USA, Jan. 2002
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Projects

- Scene Understanding and Object Recognition for Egocentric Videos (MOST, 2016.8-2019.7)
 - Bilateral Visual Understanding via Good Exemplars and User's Emotion (MOST, 2014.8-2017.7)
 - In Search of Lost Time - Time Variant Modeling for Surface and Human Appearance (NSC, 2012.8 - 2015.7)
 - Research on Video Content Editing, Rejuvenation and Personalized Classification (NSC, 2009.8 - 2012.7)
 - Research on Digital Image Forensics I, II, III (NSC, 2007.8-2010.7)
 - Video Content Modeling, Analysis and Retrieval for Video Surveillance System I, II, III (NSC, 2006.8 - 2009.7)
 - Research on Region-Based Issues for Relevance Feedback in CBIR (NSC, 2005.8 - 2006.7)
 - Research on Video Content Analysis for Abstraction and Retrieval I, II, III (NSC, 2004.8 - 2007.7)
 - Research on Content-Based Image & Video Watermarking Techniques I, II, III (NSC, 2002.8 - 2005.7)
 - Technologies and Applications for Next-Generation Media (Ministry of Education, 2000.1 - 2004.3)
 - Research on Wavelet-Based Watermarking Techniques with Scalable Robustness and Capacity (NSC 90-2213-E-007-039, 2001.8 - 2002.7)
 - Research on Feature Based Panoramic Image Mosaics (NSC 89-2218-E-007-016, 2000.8 - 2001.7)
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Multimedia Processing Laboratory

My Students

Education

- BS: CS, [National Chiao Tung University](#), 1987-1991
 - PhD: CSIE, [National Taiwan University](#), 1992-1997
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Professional Experiences

- 2012 - present, Professor, [Department of Computer Science](#), [National Tsing Hua University](#).
 - 2003 - 2012, Associate Professor, [Department of Computer Science](#), [National Tsing Hua University](#).
 - 1999 - 2003, Assistant Professor, [Department of Computer Science](#), [National Tsing Hua University](#).
 - 1998 - 1999, Sr. Research Engineer, Philips Innovation Center Taipei, [Philips Research](#)
 - 1997 - 1998, Post-Doctor Researcher, [Communication and Multimedia Lab.](#), [Department of Computer Science and Information Engineering](#), [National Taiwan University](#).
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