# James C.N. Yang Resume

- National Chiao Tung University Department of Telecommunication Engineering, B.S and M.S.
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- Chunghwa Telecom Co., Ltd Training Institute Kaohsiung Center, Instructor.
- National Dong Hwa University Computer Center, Chief of Network Division.
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### At Present

- National Dong Hwa University, CSIE Department, Professor.
- IEEE Senior Member



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## Biography

- Research
- Publication (Journal Papers, Conference Papers, Book Chapters)
- Academic Awards
- Serve in International Conferences
- **CONTENT** Serve in Local Conferences
  - Projects from National Science Council (NSC) and Other Institutes
     Serve in Reviewing Papers of Journals



## Biography

**CHING-NUNG YANG** received the B.S. degree and the M.S. degree, both from Department of Telecommunication Engineering at National Chiao Tung University. He received Ph.D. degree in Electrical Engineering from National Cheng Kung University. He is presently a professor in the Department of Computer Science and Information Engineering at National Dong Hwa University, and is also an IEEE senior member. He has published a number of journal and conference papers in the areas of information security, multimedia security and coding theory. He is the guest editor of a special issue on "Visual Cryptography Scheme" for Communication of CCISA, and a coauthor of a series of articles on "Image Secret Sharing" for

the Encyclopedia of Multimedia. He is the coeditor of two books "Visual Cryptography and Secret Image Sharing" published by CRC Press/Taylor & Francis, and "Steganography and Watermarking" published by Nova Science Publishers, Inc. He serves as a technical reviewer for over 30 major scientific journals in the areas of his expertise, and serves as editorial boards of some journals. Also, has served member of program committees of various international conferences. He is the recipient of the 2000, 2006, 2010, 2012, and 2014 Fine Advising Award in the Thesis of Master/PhD of Science awarded by Institute of Information & Computer Machinery. His current research interests include coding theory, information security, and cryptography.



## Research

My research interests include cryptography, information security, and coding theory.

- (1) Visual Secret Sharing Scheme
- (2) Image Secret Sharing Scheme
- (3) Information Hiding
- (4) Digital Watermark
- (5) Digital Multimedia Security
- (6) Wireless Security
- (7) E-Commerce Security
- (8) Quantum Cryptography
- (9) Computer Memory Coding



## Publication (Journal Papers, Conference Papers, Book Chapters)

#### (A) Journal Papers: (Use 2013 Impact Factor from Journal Citation Reports)

- 01. C.N. Yang, C.H. Chen, and S.R. Cai, "Enhanced Boolean-based Multi Secret Image Sharing Scheme," accepted and to be published at Journal of Systems and software (doi:10.1016/j.jss.2015.01.031). [SCI 5-year IF: 1.443].
- 02. C.N. Yang and C.Y. Lin, "Almost-aspect-ratio-invariant Visual Cryptography without Adding Extra Subpixels," Information Sciences, Vol 312, pp. 131–151, Aug., 2015. [SCI 5-year IF: 3.969].
- 03. C.N. Yang, L.Z. Sun, X. Yan and C. Kim, "Design a New Visual Cryptography for Human-verifiable Authentication in Accessing a Database," Journal of Real-Time Image Processing (doi:10.1007/s11554-015-0511-9) published online at June, 2015. [SCI 5-year IF: 1.111].

- 04. **C.N. Yang**, S.R. Cai, and L.Z. Sun, "Parallel Response Ternary Query Tree for RFID Tag Anti-Collision," Journal of Computer and Communications, Vol. 3, No. 5, pp. 72-79, May 2015. **[indexed by Google Scholar]**.
- 05. X. Yan, S. Wang, X. Niu, and C.N. Yang, "Generalized Random Grids-based Threshold Visual Cryptography with Meaningful Shares," Signal Processing, Vol. 109, pp. 317–333, April, 2015. [SCI 5-year IF: 2.115].
- 06. X. Yan, S. Wang, X. Niu, and C.N. Yang, "Halftone Visual Cryptography with Minimum Auxiliary Black Pixels and Uniform Image Quality," Digital Signal Processing, Vol. 38, pp. 53–65, March, 2015. [SCI 5-year IF: 2.018].
- 07. C.N. Yang, Z.Y. Lin, and S.L. Peng, "Reducing Code Length of Second-Order Spectral-Null Code," IEEE Transactions on Computers, Vol. 64, No. 2, pp. 492-503, Feb., 2015. [SCI 5-year IF: 1.845].
- 08. C.N. Yang, P. Li, C.C. Wu, and S.R. Cai, "Reducing Shadow Size in Essential Secret Image Sharing by Conjunctive Hierarchical Approach," Signal Processing- Image Communication, Vol. 31, pp. 1–9, Feb., 2015. [SCI 5-year IF: 1.284].
- 09. X. Yan, S. Wang, X. Niu, and C.N. Yang, "Random Grid-based Visual Secret Sharing with Multiple Decryptions," Journal of Visual Communication and Image Representation, Vol. 26, pp. 94–104, Jan., 2015. [SCI 5-year IF: 1.477].
- Y.X. Liu, C.N. Yang, P.H. Yeh, "Reducing Shadow Size in Smooth Scalable Secret Image Sharing," Security and Communication Networks, Vol. 7, Issue 12, pp. 2237–2244, Dec., 2014. [SCI 5-year IF: 0.468].
- 11. C.N. Yang, C.L. Hsieh, and S.R. Cai, "Secret Image Sharing Schemes by Using Maximum Distance Separable Codes," International Journal of Machine Learning and Computing, Vol. 4, No. 6, pp. 522-526, Dec., 2014. [indexed by Ei INSPEC].
- C. Kim and C.N. Yang, "Data Hiding Based on Overlapped Pixels Using Hamming Code," Multimedia Tools and Applications, published online, DOI: 10.1007/s11042-014-2355-x, Nov., 2014. [SCI 5-year IF: 1.039].
- C.N. Yang, C.C. Wu, and D. Wang, "A Discussion on the Relationship between Probabilistic Visual Cryptography and Random Grid," Information Sciences, Vol. 278, pp. 141-173, Sep., 2014. [SCI 5-year IF: 3.969].
- C.N. Yang and Y.Y. Yang, "New Extended Visual Cryptography Schemes with Clearer Shadow Images," Information Sciences, Vol. 271, pp. 246-263, July, 2014. [SCI 5-year IF: 3.969].

- 15. C. Kim, D. Shin, Dongil Shin, R. Tso, and C.N. Yang, "A secret sharing scheme for EBTC using steganography," Journal of Intelligent Manufacturing, Vol. 25, Issue 2, pp 241-249, April, 2014. [SCI 5-year IF: 1.658].
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- 17. S. Cimato, **C.N. Yang**, and C.C. Wu, "Visual Cryptography Based Watermarking," LNCS Transactions on Data Hiding and Multimedia Security, Vol. IX, pp. 91-109, 2014.
- F. Liu, T. Guo, C. Wu, and C.N. Yang, "Flexible Visual Cryptography Scheme Without Distortion and Its Application," LNCS Transactions on Data Hiding and Multimedia Security, Vol. IX, pp. 110-130, 2014.
- D. Wang, T. Song, L. Dong, and C.N. Yang, "Optimal Contrast Greyscale Visual Cryptography Schemes with Reversing," IEEE Transactions on Information Forensics and Security, Vol. 8, No. 12, pp. 2059-2072, Dec., 2013. [SCI 5-year IF: 2.379].
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- P. Li, C.N. Yang, C.C. Wu, Q. Kong, and Y. Ma, "Essential Secret Image Sharing Scheme with Different Importance of Shadows," Journal of Visual Communication and Image Representation, Vol. 24, Issue 7, pp. 1106–1114, Oct., 2013. [SCI 5-year IF: 1.477].
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- 26. C.N. Yang and T.H. Chung, "Cryptanalysis of Chen et al.'s multi-secret visual cryptography scheme," Imaging Science Journal, Vol. 61, No. 3, pp. 334-340, March 2013. [SCI 5-year IF: 0.427].
- 27. C. Kim, Y. Choi, H. Kim, D. Shin, D. Shin, and C.N. Yang, "Reversible Data Hiding for Halftone Images Using Histogram Modification," Information-An International Interdisciplinary Journal, Vol.16, No.3(A), pp.1861-1872, March, 2013.
- 28. P. Trung Huy, N. Thanh, C. Kim, and C.N. Yang, "Data-Hiding for Halftone Images Using an Improved CPT scheme," KSII Transactions on Internet and Information Systems, Vol.7, Issue 7, pp. 405-424, Feb., 2013. [SCI 5-year IF: 0.387].
- C.N. Yang, C.C. Wu, Y.C. Lin, and C. Kim, "Enhanced Matrix-Based Secret Image Sharing Scheme," IEEE Signal Processing Letters, Vol. 19, Issue 12, pp. 789-792, Dec., 2012. [SCI 5-year IF: 1.718].
- 30. C.N. Yang, L.J. Hu and J.B. Lai, "Query Tree Algorithm for RFID Tag with Binary-Coded Decimal EPC," IEEE Communications Letters, Vol. 16, No. 10, pp. 1616-1619, Oct., 2012. [SCI 5-year IF: 1.468].
- Y.X. Liu, L. Harn, C.N. Yang, and Y.Q. Zhang, "Efficient (n, t, n) Secret Sharing Schemes," Journal of Systems and Software, Vol. 85, Issue 6, pp. 11325-1332, Jun., 2012.
   [SCI 5-year IF: 1.443].
- 32. C.N. Yang, H.W. Shih, C.C. Wu, and L. Harn, "k out of n Region Incrementing Scheme in Visual Cryptography," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 22, No. 6, pp. 779-810, May, 2012. [SCI 5-year IF: 2.546].
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- 35. **C.N. Yang** and C.C. Wu, and F. Liu, "Construction of General (k, n) Probabilistic Visual Cryptography Scheme," Journal of Electronic Science and Technology, Vol. 9, Issue 4, pp. 317-324, Dec., 2011.[indexed by Ei INSPEC].
- C.N. Yang, C.Y. Chiu, and G.C. Wu, "Efficient Encoding/Decoding for Second-Order Spectral-Null Codes by Reducing Random Walks," IEEE Transactions on Computers, Vol. 60, No. 10, pp. 1503-1510, Oct., 2011. [SCI 5-year IF: 1.845].

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- 41. C.N. Yang, C.B. Ciou, "Image Secret Sharing Method with Two-Decoding-Options: Lossless Recovery and Previewing Capability", Image and Vision Computing, Vol. 28, Issue 12, pp. 1600-1610, Dec., 2010. [SCI 5-year IF: 2.095].
- C.N. Yang and Sin-Ming Huang, "Constructions and Properties of k out of n Scalable Secret Image Sharing," Optics Communications, Vol. 283, Issue 9, pp. 1750–1762, May, 2010. [SCI 5-year IF: 1.468].
- C.N. Yang, A.G. Peng and T.S. Chen, "MTVSS: (M)isalignment (T)olerant (V)isual (S)ecret (S)haring on Resolving Alignment Difficulty," Signal Processing, Vol. 89, Issue 8, pp. 1602-1624, Aug., 2009. [SCI 5-year IF: 2.115].
- 44. C.N. Yang, C.B. Ciou, "A Comment on "Sharing Secrets in Stego Images with Authentication"," Pattern Recognition, Vol. 42, Issue 7, pp. 1615-1619, Jul., 2009. [SCI 5-year IF: 3.153].
- 45. **C.N. Yang**, and Y.Y Yang, and C.Y. Chiu, "Image Library Systems: A Novel Installment Payment for Buying Images on the Web," Journal of Computers, Vol. 20, No.1, pp. 43-49, Apr., 2009. **[EI]**.
- 46. C.N. Yang and B.L. Lu, "Improved Tracing Algorithm for Random-Error-Resilient Collusion-Secure Fingerprinting Codes," Journal of Information Science and Engineering, Vol. 25 No. 1, pp. 1-10, Jan., 2009. [SCI 5-year IF: 0.387].
- 47. C.N. Yang, A.G. Peng and T.S. Chen, "Secret Image Sharing: DPVCS A Two-in-One Combination of (D)eterministic and (P)robabilistic (V)isual (C)ryptography (S)chemes," Journal of Imaging Science and Technology, Vol. 52, No. 6, pp. 060508-1-060508-12, Nov./Dec., 2008. [SCI 5-year IF: 0.850].
- 48. C.N. Yang, C.C. Wang and T.S. Chen, "Visual Cryptography Schemes with Reversing," Computer Journal, Vol. 51 No. 6, pp. 710-722, Nov. 2008. [SCI 5-year IF: 1.024].

- C.N. Yang and T.S. Chen, "Colored Visual Cryptography Scheme Based on Additive Color Mixing," Pattern Recognition, Vol. 41, Issue 10, pp. 3114-3129, Oct., 2008. [SCI 5-year IF: 3.153].
- C.N. Yang "Efficient Encoding Algorithm for Second-Order Spectral-Null Codes Using Cyclic Bit-Shift," IEEE Trans. on Computers, Vol. 57, No. 7, pp. 876-888, Jul., 2008. [SCI 5-year IF: 1.845].
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- 53. C.N. Yang, M.Y. Chen and C.S. Laih, "Applying RFID Technology in Warranty Service Information System," International Journal of Services Operations and Informatics, Vol. 2, No. 3, pp. 267-277, 2007. [indexed by Scopus].
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- 56. M.Y. Chen, C.N. Yang and C.S. Laih, "Authorized Tracking and Tracing for RFID Tags," International Journal of Security and Its Applications, Vol. 1, No. 1, pp. 1-13, Jul., 2007. [indexed by Scopus].
- 57. C.N. Yang, T.S. Chen, K.H. Yu and C.C. Wang, "Improvements of image sharing with steganography and authentication," Journal of Systems and software, Vol. 80, Issue 7, pp. 1070-1076, Jul., 2007. [SCI 5-year IF: 1.443].
- 58. C.N. Yang, K.H. Yu and R. Lukac, "User-Friendly Image Sharing Using Polynomials with Different Primes," International Journal of Imaging Systems and Technology, Vol. 17, Issue 1, pp. 40-47, Jun., 2007. [SCI 5-year IF: 0.850].
- C.N. Yang and D.J. Lee, "Some New Efficient Second-Order Spectral-Null Codes with Small Lookup Tables," IEEE Trans. on Computers, Vol. 55, Issue 7, pp. 924-927, Jul., 2006. [SCI 5-year IF: 1.845].

- 60. C.N. Yang and T.S. Chen, "Reduce Shadow Size in Aspect Ratio Invariant Visual Secret Sharing Schemes using a Square Block-wise Operation," Pattern Recognition, Vol. 39, Issue 7, pp. 1300-1314, Jul., 2006. [SCI 5-year IF: 3.153].
- 61. C.N. Yang, T.S. Chen and M.H. Ching, "Embed Additional Private Information into Two-Dimensional Bar Codes by the Visual Secret Sharing Scheme," Integrated Computer-Aided Engineering, Volume 13, Number 2, pp. 189-199, 2006. [SCI5-year IF:2.908].
- 62. C.N. Yang and T.S. Chen, "New Size-Reduced Visual Secret Sharing Schemes with Half Reduction of Shadow Size," IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences, Vol. E89-A, No.2, pp. 620-625, Feb., 2006. [SCI 5-year IF: 0.229].
- 63. C.N. Yang and T.S. Chen, "Size-Adjustable Visual Secret Sharing Schemes," IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, Vol.E88-A, No.9, pp. 2471-2474, Sep., 2005. [SCI 5-year IF: 0.229].
- 64. C.N. Yang, "Design of Efficient Second-Order Spectral-Null Codes," IEEE Trans. on Information Theory, Vol. 51, No. 4, pp. 1580-1584, Apr., 2005. [SCI 5-year IF: 3.281].
- 65. C.N. Yang and G.J. Chen, "A Comment on "Systematic Single Asymmetric Error-Correcting Codes", IEEE Trans. on Information Theory, Vol. 51, No. 3,pp. 1214-1217, Mar., 2005. [SCI 5-year IF: 3.281].
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- 68. C.N. Yang, "New Visual Secret Sharing Schemes Using Probabilistic Method," Pattern Recognition Letters, Vol. 25, Issue 4, pp. 481-494, 2004. [SCI 5-year IF: 1.466].
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- C.N. Yang, "Improvements on Audio and Optical Cryptography," Journal of Information Science and Engineering, Volume 18, Number 3, pp.381-391, May, 2002. [SCI 5-year IF: 0.387].

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- 75. C.N. Yang and C.S. Laih, "Generating Functions for Asymmetric/ Unidirectional Error Correcting and Detecting Codes," IEICE Trans. on Fundamentals of Electronics, Communications, and Computer Sciences, pp. 1135-1143, Jun., 1997. [SCI 5-year IF: 0.229].
- 76. C.N. Yang and C.S. Laih, "A Note On Error-correcting Codes for Authentication and Subliminal Channels," Information Processing Letters, vol. 62, pp.141-143, 1997. [SCI 5-year IF: 0.595].
- 77. C.S. Laih and C.N. Yang, "Deign of Efficient Balanced Codes with Minimum Distance 4," IEE Proceedings-Communications (IET Communications), vol. 143, pp. 177-181, Aug., 1996. [SCI 5-year IF:0.841].
- 78. C.S. Laih and C.N. Yang, "On The Analysis and Design of Group Theoretical t-syEC/AUED Codes," IEEE Trans. Computers, vol. C-45, pp. 103-108, Jan., 1996. [SCI 5-year IF: 1.845].

#### (B) Conference Papers:

(Some modified versions of conference papers also appear in Journal papers. Authors' names may be different according to their contributions in journal versions, and the changes are under an agreement of all authors.)

#### **International Conference Papers:**

- 01. X. Yan, S. Wang, X. Niu, and C.N. Yang, "Essential Visual Cryptographic Scheme with Different Importance of Shares," LNCS 8836, pp. 636-643, ICONIP 2014 (the 21st International Conference on Neural Information Processing), Kuching, Sarawak, Malaysia, Nov., 2014.
- 02. X. Yan, G. Chen, and C.N. Yang, "Random Grids-based Threshold Visual Secret Sharing with Improved Contrast by Boolean Operations," IWDW 2014 (13-th International Workshop on Digital-forensics and Watermarking), Taipei, Taiwan, Oct., 2014.

- 03. P. Li, C.N. Yang, and Q. Kong, "Two-in-one Image Secret Sharing Scheme Based on Boolean Operations," LNCS 9023, pp. 305-318, IWDW 2014 (13-th International Workshop on Digital-forensics and Watermarking), Taipei, Taiwan, Oct., 2014.
- 04. C. Kim and C.N. Yang, "Steganography Based on Grayscale Images Using (5, 3) Hamming Code," LNCS 9023, pp. 588-598, IWDW 2014 (13-th International Workshop on Digital-forensics and Watermarking), Taipei, Taiwan, Oct., 2014.
- 05. D. Wang, F. Yi, and C.N. Yang, "Visual Cryptography Scheme with Autostereogram," LNCS 9023, pp. 364-375, IWDW 2014 (13-th International Workshop on Digital-forensics and Watermarking), Taipei, Taiwan, Oct., 2014.
- 06. Y.C. Huang, W.C. Kuo, and **C.N. Yang**, "Data Hiding Based on Radix-2," AsiaJCIS 2014 (the 9th Asia Joint Conference on Information Security), Wuhan, China, Sep., 2014.
- 07. C.N. Yang, W.J. Chang, S.R. Cai, and C.Y. Lin, "Secret Image Sharing without Keeping Permutation Key," pp. 410-416, ICT 2014 (International Conference on Information and Communications Technologies), Nanjing, China, May, 2014.
- 08. T. Guo, F. Liu, C. Wu, C.N. Yang, and W. Wang, "Threshold Secret Image Sharing," LNCS 8233, pp. 404-412, ICICS 2013 (The 15th International Conference on Information and Communications Security), Beijing, China, Nov., 2013.
- 09. **C.N. Yang** and Y.C. Lin, "Cheating Immune Block-based Progressive Visual Cryptography," LNCS 8389, pp. 95-108, IWDW 2013 (12-th International Workshop on Digital-forensics and Watermarking), Auckland, New Zealand, Oct., 2013.
- C.N. Yang, C.C. Wu, and C.W. Chou, "A comment on "sharing secret images using Blakley's concept"," The Ninth International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP 2013), pp. 383-386, Beijing, China, Oct., 2013.
- X.F. Xu, D. Wang, S.D. Li, and C.N. Yang, "An anti-cheating block secret sharing scheme based-on cyclic codes," The Ninth International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP 2013), pp. 369-372, Beijing, China, Oct., 2013.
- C.N. Yang and J.B. Lai, "Protecting Data Privacy and Security for Cloud Computing Based on Secret Sharing," International Symposium on Biometrics and Security Technologies (ISBAST'13), pp. 259-266, Chengdu, China, July, 2013.
- P.T. Huy, C. Kim, N. T. Anh, L.Q. Hoa, and C.N. Yang, "Data Hiding Based on Palette Images Using Weak Bases of Z2-Modules," LNCS 7861, pp. 649-658, GPC 2013, (8th

International Conference, 2013 Grid and Pervasive Computing 2013 and Colocated Workshops), Seoul, Korea, May, 2013.

- 14. C.N. Yang, Y.C. Lin, and C.C. Wu, "Region-in-Region Incrementing Visual Cryptography Scheme," LNCS 7809, pp. 449-463, IWDW 2012, (11-th International Workshop on Digital-forensics and Watermarking), Shanghai, China, Oct., 2012.
- 15. S. Cimato, C.N. Yang, and C.C. Wu, "Visual Cryptography based Watermarking: Definition and Meaning," LNCS 7809, pp. 435-448, IWDW 2012, (11-th International Workshop on Digital-forensics and Watermarking), Shanghai, China, Oct., 2012.
- 16. C. Kim, D. Shin, D, Shinn, and C.N. Yang, "A (2, 2) Secret Sharing Scheme Based on Hamming Code and AMBTC," LNCS 7197, pp. 129-139, ACIIDS 2012, (Asian Conference on Intelligent Information and Database Systems), Taiwan, March, 2012.
- C.N. Yang, T.Y. Wu, L.J. Hu, P. Wang, and C.H. Lee, "Applying Dynamic Partition in IRC-Based Botnet Detection," 2011 IEEE International Conference on Information Theory and Information Security (ICITIS 2011), Vol. II, pp. 655-660, Hangzhou, China, Nov., 2011.
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- C.N. Yang, H.W. Shih, Y.Y. Chu, and L. Harn, "New Region Incrementing Visual Cryptography Scheme," The 2011 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV 2011) in conjunction with WORLDCOMP 2011, pp. 323-329, Las Vegas, USA, July, 2011.
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- 54. C.N. Yang, H.C. Yang, J.Y. Chen, T.C. Tung, and L.Z. Sun, "A Multilevel Security Google Map Graphical Password," TANET 2014, Oct. 2014.

- 55. **C.N. Yang**, C.C. Wu, Y.C. Lin, C.Y. Lin, and S.R. Cai, "Block-based Progressive Visual Cryptography," The Fourth National Conference on Web Intelligence and Applications (NCWIA 2014), May, 2014.
- 56. C.N. Yang, C.Y. Chiu, and S.R. Cai, "Mobile Authentication Based on Google Cloud Messaging," TANET 2013, Oct. 2013.
- 57. C.N. Yang, S.Y. Tsai, C.C. Wu, C.Y. Lin, S.R. Cai, T.H. Chen, and C.L. Sheih, "Android Push Notification on Health Information Services for Elderly Seniors Based on Google Cloud Messaging," TANET 2013, Oct. 2013.
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- C.N. Yang, S.H. Lin, G.C. Huang, Y.L. Chang, H.W. Shih, and Y.C. Lin, "A Text-in-Picture Steganographic Method using Android Platform," TANET 2011, Oct. 2011.
- 61. C.N. Yang, C.H. Wu, P.Y. Liao, and G.C. Wu, "ROI/NROI Data Hiding of Medical Images, with Application on Blood Capillary Images," 2011 the 6th International Symposium on Healthcare Information Management (UHIMA 2011).
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- 66. C.N. Yang, S.H. Chang, T.S. Chen, and C.H. Su, "A New Pixel-Value Differencing Steganography Scheme Based on Space Filling Curve," Cryptology and Information Security Conference 2008 (CISC2008), pp. 462-474, May 2008.

- 67. C.N. Yang, J. S. Su, T. S. Chen, and S. H. Chang, "Implementation of A High-Security Certificate Service By Embedding Fingerprint In Smart Cards," Open Source Code 2007, Nov, 2007.
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- C.N. Yang, A.G. Peng and T.S. Chen, "Registration Tolerant Visual Secret Sharing Schemes Using Two-Sized Subpixels," Information Security Conference, pp.13-23, June, 2007.
- C.N. Yang, F.R. Zhou, J.R. Lu, T. Zheng and T.S. Chen, "Applying CAPTCHA Technology to Prevent Click Fraud in E-Commercials," ECDL2007, pp. 492-499, March, 2007.
- 71. **C.N. Yang,** T.S. Chen and A.G. Peng, "Certificate Services for Cellular Phone Emulator Based on JAVA Card," OpenSource Code 2006, Nov. 2006.
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- 80. C.C. Lin, C.S. Laih and C.N. Yang, "Audio Cryptography Schemes based on the time division technique," 2002 Proceedings of the Eleventh National Conference on Information Security, pp.407-414, May 2002.
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- C.N. Yang and T.L. Wu, "Visual Secret Sharing Schemes with Multiple Shared Secrets,"
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- C.H. Shi, S.L. Peng, and C.N. Yang, "Efficient Generation of Constant Weight Codes in Cryptosystem," 2000 Proceedings of the Tenth National Conference on Information Security, pp. 149-160, May, 2000.
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- 85. **C.N. Yang** and C.S. Laih, "Some new types of visual secret sharing schemes," 1999 National Computer Symp. (NCS'99), vol. III, pp.260-268, Dec., 1999.

#### (C)Books and Book Chapters:

- 01. Book Editor- Y.Q. Shi, H.J. Kim, H.J., F. Pérez-González, and C.N. Yang, Digital-Forensics and Watermarking (Springer, ISBN: 978-3-319-19320-5), 2015.
- 02. Book- C.N. Yang, C.C. Lin, and C.C. Chang, Steganography and Watermarking, Nova Science Publishers, Inc., ISBN: 978-1-62618-317-9, Number of pages: 412, Publication Date: 2013 - 3rd Quarter.
- 03. Book Chapter- C.N. Yang, W.C. Kuo, and S. H. Chang, Chapter 5: A High Steganographic Scheme with Pixel-Value Differencing, in the book Steganography and Watermarking, 2013.
- 04. Book Editor- J.S. Pan, C.N. Yang, and C.C. Lin, Advances in Intelligent Systems and Applications -Volume 2 (Springer. ISBN: 978-3-642-35472-4), Dec., 2012.

- 05. Book Chapter- C.N. Yang, J.Y. He, and Y.C. Kun, Chapter: RFID Tag Anti-Collision Protocols, in the book Advanced RFID Systems, Security, and Applications (IGI Global, ISBN 13: 9781466620803), 2012.
- 06. Book- S. Cimato and C.N. Yang, Visual Cryptography and Secret Image Sharing, Publisher: CRC Press/Taylor & Francis, ISBN: 9781439837214, Number of Pages: 501, Publication Date: August 10, 2011.
- 07. Book Chapter- C.N. Yang, C.B. Ciou, and T.S. Chen, Chapter 17: Two-Decoding-Option Image Sharing Method, in the book Visual Cryptography and Secret Image Sharing, Aug., 2011.
- 08. Book Chapters- R. Lukac, K.N. Plataniotis, and C.N. Yang, Image Secret Sharing. In Encyclopedia of Multimedia, (ed.) B. Furth, Springer-Verlag, pp. 328-335, January 2006. Including short articles: Compression in Image Secret Sharing (pp. 86-87), Halftoning-Based Visual Secret Sharing (pp. 363-364), Image Watermarking Using Visual Cryptography (pp. 337-338), Private-Key Cryptosystem (pp. 712-714), Threshold Schemes with Minimum Pixel Expansion (pp. 849-850), Visual Cryptography (pp. 950-951). ISBN 0-387-24395-X.



### Academic Awards

- Fine Advising Award in the Thesis of PhD of Science awarded by Institute of Information & Computer Machinery year of 2014. The title of thesis is "Visual Cryptography and Secret Image Sharing".
- Fine Advising Award in the Thesis of Master of Science awarded by Institute of Information & Computer Machinery year of 2012. The title of thesis is "k out of n Region Incrementing Scheme in Visual Cryptography".
- Fine Teaching Award in the College of Science and Engineering of National Dong Hwa University year of 2011.
- Fine Advising Award in the Thesis of Master of Science awarded by Institute of Information & Computer Machinery year of 2010. The title of thesis is "A New (k, n) Multi-secret Visual Cryptography".
- RFID-TA 2010 Best Student Paper Award Competition in IEEE International Conference on RFID-Technology and Applications 2010. The title of paper is "A New Adaptive Query Tree on Resolving RFID Tag Collision".

- iiWAS 2009 Best Paper Award in the 11th International Conference on Information Integration and Web-based Applications & Services (iiWAS2009). The title of paper is "Micropayment Schemes with Ability to Return Changes".
- Fine Teaching Award in the College of Science and Engineering of National Dong Hwa University year of 2008.
- One of the top ten most cited papers among all the papers published by Journal of System and Software in 2007. The paper is C.N. Yang, T.S. Chen, K.H. Yu and C.C. Wang, "Improvements of image sharing with steganography and authentication," Journal of Systems and software, Vol. 80, Issue 7, pp. 1070-1076, Jul., 2007.
- Fine Advising Award in the Thesis of Master of Science awarded by Institute of Information & Computer Machinery year of 2006. The title of thesis is "Design of Some New Efficient Second-Order Spectral-Null Codes".
- Fine Teaching Award in the Whole Campus of National Dong Hwa University year of 2004.
- Fine Advising Award in the Thesis of Master of Science awarded by Institute of Information & Computer Machinery year of 2002. The title of thesis is "Detection of Tampering In Noisy Environment For Write-Once Optical Disks".



## Serve in International Journals and Conferences

## Journals

- Guest Editor- Special Issue on "Real-Time data Hiding and Visual Cryptography" for the Journal of Real-Time Image Processing (JRTIP).
- Editorial Board- International Journal of Knowledge Engineering (IJKE).
- Lead Guest Editor- Special Issue on "Multimedia and Image Processing: Security, Forensics, and Applications" for Journal of Electrical and Computer Engineering (Hindawi Publishing Corporation).
- Editorial Board- Mobile Computing (The World Academic Publishing).
- Editorial Board- Journal of Advanced Computing (Columbia International Publishing).
- Editorial Board- Information Technology and Applications (The World Academic Publishing).

## Conferences

- ICISSP 2016- **Program Committee Member** of the International Conference on Information Systems Security and Privacy (ICISSP 2016).
- WCSN 2015- Co-Chair of 2nd International Conference on Wireless Communication and Sensor Network (WCSN 2015).
- CoHeB 2015- Program Committee Member of International Workshop on Collaboration Technologies and Systems in Healthcare and Biomedical Fields (CoHeB 2015) in conjunction with CTS 2015.
- IWDW 2015- **Program Committee Member** of 14th International Workshop on Digital-Forensics and Watermarking (IWDW 2015).
- SAPSE 2015- Program Committee Member of 7th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2015) in conjunction with COMPSAC 2015.
- ICISSP 2015- **Program Committee Member** of the International Conference on Information Systems Security and Privacy (ICISSP 2015).
- CEEIT 2015- International Technical Committee Member of 2015 International Conference on Electrical Engineering and Information Technology (CEEIT 2015).
- IWDW 2014- General Chair of 13th International Workshop on Digital-Forensics and Watermarking (IWDW 2014).
- ADCO 2014- Program Committee Member of International Conference on Advanced Computing (ADCO 2014).
- ICCIA 2014- Session Chair of The 2014 International Conference on Computational Intelligence and Applications (ICCIA 2014).
- ICCIA 2014- **Technical Committee Member** of The 2014 International Conference on Computational Intelligence and Applications (ICCIA 2014).
- SITIS 2014- Program Committee Member of The 10th International Conference on Signal Image Technology & Internet Based Systems (SITIS 2013).
- ICT 2014- Session Chair of International Conference on Information and Communications Technologies (ICT 2014).
- EICE 2014- Technical Program Committee Member of International Conference on Electrical, Instrumentation and Control Engineering (EICE 2014).

- CoHeB 2014- Program Committee Member of International Workshop on Collaboration Technologies and Systems in Healthcare and Biomedical Fields (CoHeB 2014) in conjunction with CTS 2014.
- CEEIT 2014- International Technical Committee Member of 2014 International Conference on Electrical Engineering and Information Technology (CEEIT 2014).
- SITIS 2013- Program Committee Member of The 9th International Conference on Signal Image Technology & Internet Based Systems (SITIS 2013).
- IIH-MSP 2013- Special Session Chair on Visual Cryptography and Secret Image Sharing in conjunction with Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 2013).
- EUC 2013- **Program Committee Member** of The 11th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC 2013).
- UMAS 2013- General Chair of 2013 International Symposium on Research in Ubiquitous and Multimedia Application Systems (UMAS 2013) in conjunction with NPC 2013.
- CoHeB 2013- Program Committee Member of International Workshop on Collaboration Technologies and Systems in Healthcare and Biomedical Fields (CoHeB 2013) in conjunction with CTS 2013.
- WCNC 2013- Technical Program Committee Member of IEEE Wireless Communications and Networking Conference (WCNC 2013).
- CRC 2012- Program Committee Member of International Workshop on Cloud Computing for Research Collaborations (CRC 2012) in conjunction with IEEE CloudCom 2012.
- ICS 2012- Program Committee Chair of International Computer Symposiums (ICS 2012).
- Workshop on Cryptography and Information Security 2012- Program Committee Co-Chair of Workshop on Cryptography and Information Security 2012 in conjunction with ICS 2012.
- UMAS 2012- General Chair of 2012 International Symposium on Research in Ubiquitous and Multimedia Application Systems (UMAS 2012) in conjunction with NPC 2012.
- GDC 2012- **Program Committee Member** of The 2012 Conference on Grid and Distributed Computing.

- iiWAS2012- **Program Committee Member** of 14th International Conference on Information Integration and Web-based Applications & Services (iiWAS2012).
- WPS 2012- **Program Committee Co-Chair** of the 5th FTRA International Workshop on Web and Pervasive Security (WPS 2012) in conjunction with CSA 2012.
- ACSA 2011- Session Chair of 2011 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-11).
- ICITIS2011- Session Chair of 2011 IEEE International Conference on Information Theory and Information Security.
- IPCV 2011- Session Chair of International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV 2011)) in conjunction with WORLDCOMP 2011.
- GDC 2011- **Program Committee Member** of The 2011 Conference on Grid and Distributed Computing
- 2011 International Workshop on Network & System Security- Program Committee Member of the workshop in Conjunction with IEEE ICPADS 2011
- ICITIS2011- **Program Committee Member** of 2011 IEEE International Conference on Information Theory and Information Security
- iiWAS2011- **Program Committee Member** of 13th International Conference on Information Integration and Web-based Applications & Services (iiWAS2011)
- e-CASE & e-Tech 2011- Session Chair of the 2011 International Conference on e-Commerce, e-Administration, e-Society, e-Education, and e-Technology.
- CSO 2011- **Program Committee Member** of Fourth International Joint Conference on Computational Sciences and Optimization
- CHINACOMM 2011- Program Committee Member of 6th International ICST Conference on Communications and Networking in China
- ICIC 2011- **Program Committee Member** of 2010 International Conference on Intelligent Computing
- iiWAS2010- Program Committee Member of 12th International Conference on Information Integration and Web-based Applications & Services (iiWAS2010)
- BIFE 2010- **Program Committee Member** of 2010 International Conference on Business Intelligence and Financial Engineering
- ICIC 2010- Program Committee Member of 2010 International Conference on Intelligent Computing
- GPC 2010- **Publication Chair** of 2010 5th International Conference on Grid Pervasive Computing

- ITA 2009- Session Chair of the 2009 International Symposium on IT and its Applications (ITA-09) in conjunction with IEEE CSA 2009.
- ISSR2009- Session Chair of IEEE International Workshop on Security in e-Science and e-Research (ISSR2009) in conjunction with IEEE ISPA2009.
- MPIS 2009- Program Committee Member of the Second International Workshop on Multimedia, Information Privacy and Intelligent Computing Systems in conjunction with CSA 2009
- ICPADS 2009- **Program Committee Member** of Security and Trustworthy Computing for The Fifteenth International Conference on Parallel and Distributed Systems
- BIFE 2009- **Program Committee Member** of 2009 International Conference on Business Intelligence and Financial Engineering
- FIP 2009- **Program Committee Member** of 2009 International Symposium on Financial Information Processing
- ICIC 2009- Program Committee Member of 2009 International Conference on Intelligent Computing
- JWIS 2009- Program Committee Member of 2009 Joint Workshop on Information Security
- Inscrypt 2008- Session Chair of 2008 International Conference on Information Security and Cryptology
- MPIS 2008- Program Committee Member of The First International Workshop on Multimedia, Information Privacy and Intelligent Computing Systems in conjunction with IEEE APSCC 2008
- CLD 2008- Program Committee Member of 2008 ACM International Workshop on Cross Layer Design
- ICIC 2008- **Program Committee Member** of 2008 International Conference on Intelligent Computing
- ICIC 2007- **Program Committee Member** of 2007 International Conference on Intelligent Computing



## Serve in Local Conferences

• NCWIA 2014- **Invited Session Chair** of The Fourth National Conference on Web Intelligence and Applications 2014.

- NCS 2013- Publicity Chair of Workshop on Digital Forensics, Security and Privacy in conjunction with NCS 2013.
- CISC 2013- **Program Committee Member** of 2013 Cryptology and Information Security Conference
- CISC 2012- **Program Committee Member** of 2012 Cryptology and Information Security Conference
- NCS 2011- Program Committee Member of 2011 National Computer Symposium
- CISC 2011- Program Committee Member of 2011 Cryptology and Information Security
   Conference
- NCS 2009- Program Committee Member of 2009 National Computer Symposium
- CISC 2009- **Program Committee Member** of 2009 Cryptology and Information Security Conference
- CISC 2008- **Program Chair** of 2008 Cryptology and Information Security Conference (original ISC)
- NCS 2007- Program Committee Member of 2007 National Computer Symposium
- ISC 2007- **Program Committee Member** of 2007 National Information Security Conference
- TANET 2006 **Program Committee Member** of Taiwan Academic Network Conference 2006
- ISC 2006- **Program Committee Member** of 2006 National Information Security Conference
- WoGTA'06- Publication Chair of The 2th Workshop on Grid Technologies and Applications
- ISC 2005- **Program Committee Member** of 2005 National Information Security Conference



## Projects from National Science Council (NSC) and Other Institutes

- A Study on Enhancing Security in Google Map Based Graphical Passwords (2014, Grant No.: MOST 103-2221-E-259-015-)
- A Study on Multi-Region Incrementing Visual Cryptography (2013, 2014, Grant No.: NSC 102-2221-E-259-009-MY2)
- Android Push Notification on Prescription, Medication Instructions, and Health Information Services for Elderly Seniors (2013, Grant No.: NSC 102-2218-E-259-006-)
- Another View on Random Grid from Probabilistic Visual Cryptography (2012, Grant No.:

NSC 101-2221-E-259-028-)

- A Study of Secret Image Sharing Scheme in Distributed Network (2011, Grant No.: NSC 100-2221-E-259-025-)
- A Study of Secret Image Sharing Scheme with Multiple Decoding Options (2010, Grant No.: NSC 99-2221-E-259-014-)
- A Novel Installment Payment for Buying Images on Image Library System with Digital Right Management (2010, Grant No.: NSC 99-2631-H-259-001-)
- Survey and Study of Mobile Payment Technology, Grant from Industrial Technology Research Institute (ITRI), 2009.
- Combine Electrical (RFID) and Optical (2D bar cod) contacts to Design two RFID-based Application Systems: (1) The Warranty Service Information System (2) The Secure RFID-Enabled Banknotes (2008, 2009, Grant No.: NSC 97-2221-E-259-018-MY2NSC)
- Access Control for Mouse and Network Functions in Computer Classroom Using RFID Technique (2007, Grant No.: NSC 96-2218-E-259-002-)
- Embed Private Information into Two-Dimensional Bar Codes by the Visual Secret Sharing (2007, Grant No.: NSC 96-2628-E-259-004-)
- Implementation of A Practical Visual Secret Sharing Scheme Based on OCR and Multi-Pixel Expansion Strategies (2006, Grant No.: NSC 95-2221-E-259-016-)
- The Certificate Service for Cellular Phone Emulator Based on the JAVA Smart Card (2005, Grant No.: NSC 94-2218-E-259-005-)
- The Design and Implementation of a High Performance and Versatile WebGrid System-Sub Project 4: Security Services for Grid Computing (2/2) (2005, Grant No.: NSC 94-2213-E-259-008-)
- The Design and Implementation of a High Performance and Versatile WebGrid System-Sub Project 4: Security Services for Grid Computing (1/2) (2004, Grant No.: NSC 93-2213-E-259-017-)
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- A Study for Enhanced Wireless IEEE 802.11b Protocols Resistant to the Keystream Reuse Attack and the Cryptanalysis of RC4 (2003, Grant No.: NSC 92-2213-E-259-012-)
- Detect Tampering in Noisy Environment for Write-Once Optical Disks (2002, Grant No.: NSC 91-2213-E-259-007-)
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- A Study of Visual (including Multiple Secret 
   High Quality 
   Motion Picture) and Audio Secret Sharing Schemes (2000, Grant No.: NSC 89-2218-E-259-003-)
- New Visual Secret Sharing Schemes Using Hierarchical Technique (2000, Grant No.: NSC 89-2213-E-259-011-)



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- IEEE Trans. Information Theory
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- IEEE Trans. Information Forensics and Security
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- IEEE Communication Letter
- IET Image Processing
- Information Sciences
- Pattern Recognition
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- International Journal of Pattern Recognition and Artificial Intelligence
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- Journal of the Chinese Institute of Engineers
- Journal of Selected Topics in Quantum Electronics
- ETRI Journal
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- Security and Communication Networks
- Journal of Visual Communication and Image Representation
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