

Resume of James C.N. Yang

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- University of Missouri Kansas City (UMKC, USA), Visiting Professor.
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At Present

- National Dong Hwa University, CSIE Department, Professor.
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■ Biography

Professor Ching-Nung Yang obtained his Ph. D. degree in Electrical Engineering at National Cheng Kung University. He was awarded the degrees of B.S. and M.S. from the Department of Telecommunication Engineering at National Chiao Tung University. Professor Yang served at National Dong Hwa University since 1999. His current title is Professor in the Department of Computer Science and Information Engineering. He had been Visiting Professor at the University of Missouri Kansas City, University of Milan, and the University of Tokyo. He is currently a Fellow of IET and an IEEE senior member. Professor Yang has done extensive researches on visual cryptography and secret image sharing, and he is the chief scientist in both areas. In fact, a very important innovation “probabilistic visual cryptography” is firstly proposed by Professor Yang. His areas of interest include error correction code, multimedia security, cryptography, and information security. He has authored two books and has published over 280 professional research papers (including more than 150 SCI-indexed journal papers) in the areas of information security and coding theory. In the meantime, he has served/is serving in international academic organizations. He serves as technical reviewers for over 40 major scientific journals in the areas of his expertise and serves as editorial boards and editors of special issues for some journals. Besides, he was invited as chair, keynote speaker, and member of the program committee for various international conferences. He is the recipient of 2000, 2006, 2010, 2012, and 2014 Fine Advising Award in the Thesis of Master/Ph.D. of Science awarded by the Institute of Information & Computer Machinery.



■ 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) Blockchain Technology
- (7) Wireless Network Security
- (8) E-Commerce Security
- (9) Quantum Cryptography
- (10) Computer Memory Coding



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

(A) Journal Papers: (Use 2020 Impact Factor from Journal Citation Reports)

01. Z. Wang, L. Liao, R. Meng, **C.N. Yang**, Z. Zhou, and H. Yang, "Verification Grid and Map Slipping Based Graphical Password against Shoulder-Surfing Attacks," *Security and Communication Networks*, Vol. 2022, Article ID 6778755, April, 2022. [**SCI 5-year IF: 1.687**].
02. L. Xiong, X. Han, **C.N. Yang**, and Z. Xia, "RDH-DES: Reversible Data Hiding over Distributed Encrypted-Image Servers based on Secret Sharing," *ACM Transactions on Multimedia Computing Communications and Applications* (doi: 10.1145/3512797), published online, Mar., 2022. [**SCI 5-year IF: 2.817**].
03. **C.N. Yang**, X. Wu, M.J. Chung, and X. Zhang, "Distortionless AMBTC-based Secret Image Sharing by Simple Modular Arithmetic," *Journal of Visual Communication and Image Representation*, Vol. 84, Article 103482, April, 2022. [**SCI 5-year IF: 2.915**].
04. L. Xiong, X. Han, X. Zhong, **C.N. Yang**, and N. Xiong, "RSIS: A Secure and Reliable Secret Image Sharing System based on Extended Hamming Codes in Industrial Internet of Things," *IEEE Internet of Things Journal* (doi: 10.1109/JIOT.2021.3139657), published online, Dec., 2021. [**SCI 5-year IF: 10.127**].
05. **C.N. Yang**, C.L. Kao, and C.J. Wang, "Two-dimensional Diagonal Layer Hash Chain Based Key Pre-Distribution Scheme," *Journal of Information Security and Applications*, Vol. 63, Article 103038, Dec., 2021. [**SCI 5-year IF: 3.504**].
06. Z. Zhou, W. Pan, Q.M. Wu, **C.N. Yang**, and Z. Lv, "Geometric Rectification-Based Neural Network Architecture for Image Manipulation Detection," *International Journal of Intelligent Systems*, Vol. 36, Issue12, pp. 6993-7016, Dec., 2021. [**SCI 5-year IF: 8.161**].
07. **C.N. Yang**, P.Y. Tsai, and Y.X. Liu, "A (k, n) Secret Document Sharing with Meaningful Shares," *Journal of Information Security and Applications*, Vol. 62, Article 102973, Nov., 2021. [**SCI 5-year IF: 3.504**].
08. Z. Zhou, M. Wang, **C.N. Yang**, Z. Fu, X. Sun, and Q.M. Wu, "Blockchain-based Decentralized Reputation System in E-commerce Environment," *Future Generation Computer Systems*, Vol. 124, pp. 155-167, Nov., 2021. [**SCI 5-year IF: 6.644**].
09. C. Kim, **C.N. Yang**, J. Baek, and L. Leng, "Survey on Data Hiding Based on Block Truncation Coding," *Applied Sciences*, Vol. 11, Issue 19, 9209 (doi: 10.3390/app11199209), Oct., 2021. [**SCI 5-year IF: 2.736**].

10. **C.N. Yang**, X. Wu, H.Y. Lin, and C. Kim, "Intragroup and intergroup secret image sharing based on homomorphic Lagrange interpolation," *Journal of Information Security and Applications*, Vol. 61, Article 102910, Sep., 2021. [**SCI 5-year IF: 3.504**].
11. L. Xiong, X. Han, and **C.N. Yang**, "CP-PSIS: CRT and Polynomial-based Progressive Secret Image Sharing," *Signal Processing*, Vol. 185, Article 108064, Aug., 2021. [**SCI 5-year IF: 4.259**].
12. X. Yan, **C.N. Yang**, X. Zhang, and S. Wang, "A Common Method of Share Authentication in Image Secret Sharing," *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 31, pp. 2896-2908, July, 2021. [**SCI 5-year IF: 4.632**].
13. Y.X. Liu, **C.N. Yang**, and Q. Sun, "Thresholds Based Image Extraction Schemes in Big Data Environment in Intelligent Traffic Management," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 22, pp. 3952-3960, July, 2021. [**SCI 5-year IF: 7.253**].
14. **C.N. Yang** and Y.Y. Yang, "On the Analysis and Design of Visual Cryptography with Error Correcting Capability," *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 31, pp. 2465-2479, June, 2021. [**SCI 5-year IF: 4.632**].
15. C. Kim, D. Shin, **C.N. Yang**, and L. Leng, "Data Hiding Method for Color AMBTC Compressed Images Using Color Difference," *Applied Sciences*, Vol. 11, Issue 8, 3418 (doi: 10.3390/app11083418), April, 2021. [**SCI 5-year IF: 2.736**].
16. L. Xiong, X. Zhong, **C.N. Yang**, and X. Han, "Transform Domain-based Invertible and Lossless Secret Image Sharing with Authentication," *IEEE Transactions on Information Forensics and Security*, Vol. 16, pp. 2912-2925, Mar., 2021. [**SCI 5-year IF: 7.273**].
17. L. Xiong, X. Han, **C.N. Yang**, and Y.Q. Shi, "Robust Reversible Watermarking in Encrypted Image with Secure Multi-party based on Lightweight Cryptography," *IEEE Transactions on Circuits and Systems for Video Technology* (doi: 10.1109/TCSVT.2021.3055072), published online, Feb., 2021. [**SCI 5-year IF: 4.632**].
18. X. Wu, **C.N. Yang**, and J.M. Li, "Secure Image Secret Sharing over Distributed Cloud Network," *Signal Processing*, Vol. 178, Article 107768, Jan., 2021. [**SCI 5-year IF: 4.259**].
19. C. Kim and **C.N. Yang**, "Self-Embedding Fragile Watermarking Scheme to Detect Image Tampering Using AMBTC and OPAP Approaches," *Applied Sciences*, Vol. 11, Issue 3, 1146 (doi: 10.3390/app11031146), Jan., 2021. [**SCI 5-year IF: 2.736**].
20. **C.N. Yang**, Y.C. Lin, and P. Li, "Cheating Immune k-out-of-n Block-based Progressive Visual Cryptography," *Journal of Information Security and Applications*, Vol. 55, Article 102660, Dec., 2020. [**SCI 5-year IF: 3.504**].

21. **C.N. Yang**, Y.C. Chou, T.K. Chang, and C. Kim, "An Enhanced Adaptive Block Truncation Coding with Edge Quantization Scheme," *Applied Sciences*, Vol. 10, Issue 20, 7340 (doi: 10.3390/app10207340), Oct., 2020. [**SCI 5-year IF: 2.736**].
22. X. Wu, **C.N. Yang**, and Y.W. Liu, "A General Framework for Partial Reversible Data Hiding using Hamming Code," *Signal Processing*, Vol. 175, Article 107657, Oct., 2020. [**SCI 5-year IF: 4.259**].
23. C. Kim, D. Shin, **C.N. Yang**, and L. Leng, "Hybrid Data Hiding Based on AMBTC Using Enhanced Hamming Code," *Applied Sciences*, Vol. 10, Issue 15, 5336 (doi: 10.3390/app10155336), Aug., 2020. [**SCI 5-year IF: 2.736**].
24. L. Xiong, X. Zhong, and **C.N. Yang**, "DWT-SISA: a secure and effective Discrete Wavelet Transform-based Secret Image Sharing with Authentication," *Signal Processing*, Vol. 173, Article 107571, Aug., 2020. [**SCI 5-year IF: 4.259**].
25. X. Wu, **C.N. Yang**, and Y.Y. Yang, "Sharing and Hiding a Secret Image in Color Palette Images with Authentication," *Multimedia Tools and Applications*, Vol. 79, pp. 25657-25677, July, 2020. [**SCI 5-year IF: 2.517**].
26. X. Wu and **C.N. Yang**, "Probabilistic Color Visual Cryptography Schemes for Black and White Secret Images," *Journal of Visual Communication and Image Representation*, Vol. 70, Article 102793, July, 2020. [**SCI 5-year IF: 2.915**].
27. X. Wu, **C.N. Yang**, and Y.W. Liu "High Capacity Partial Reversible Data Hiding by Hamming Code," *Multimedia Tools and Applications*, Vol. 79, pp. 23425-23444, June, 2020. [**SCI 5-year IF: 2.517**].
28. C. Kim, **C.N. Yang**, and L. Leng, "High-Capacity Data Hiding for ABTC-EQ Based Compressed Image," *Electronics*, Vol. 9, 644, April, 2020. [**SCI 5-year IF: 2.408**].
29. Z. Zhou, K. Lin, Y. Cao, **C.N. Yang**, and Y. Liu, "Near-Duplicate Image Detection System Using Coarse-to-Fine Matching Scheme Based on Global and Local CNN Features," *Mathematics*, 8(4), 644 (doi: 10.3390/math8040644), April, 2020. [**SCI 5-year IF: 2.165**].
30. X. Wu, **C.N. Yang**, and Y.Y. Yang, "A Hybrid Scheme for Enhancing Recovered Image Quality in Polynomial Based Secret Image Sharing by Modify-and-Recalculate Strategy," *Journal of Information Security and Applications*, Vol. 51, Article 102452, April, 2020. [**SCI 5-year IF: 3.504**].
31. Z. Zhou, **C.N. Yang**, C. Kim, S. Cimato, "Introduction to the Special Issue on Deep Learning for Real-Time Information Hiding and Forensics," *Journal of Real-Time Image Processing*, Vol. 17, pp. 1-5, Jan., 2020. [**SCI 5-year IF: 2.137**].

32. Y.X. Liu, **C.N. Yang**, Q. Sun, and Y.C. Chen, "(k, n) Scalable Secret Image Sharing with Multiple Decoding Options," *Journal of Intelligent & Fuzzy Systems*, Vol. 38, No. 1, pp. 219-228, 2020. [**SCI 5-year IF: 1.797**].
33. C. Kim, D. Shin, and **C.N. Yang**, "High Capacity Data Hiding with Absolute Moment Block Truncation Coding Image Based on Interpolation," *Mathematical Biosciences and Engineering*, Vol. 17(1), pp. 160-178, 2020. [**SCI 5-year IF: 1.887**].
34. C. Kim, D. Shin, **C.N. Yang**, Y.C. Chen, and S.Y. Wu, "Data Hiding Using Sequential Hamming+k with m Overlapped Pixels," *KSII Transactions on Internet and Information Systems*, Vol. 13, No. 12, pp. 6159-6174, Dec., 2019. [**SCI 5-year IF: 0.746**].
35. Z. Zhou, **C.N. Yang**, S.R. Cai, and D. Wang, "Boolean Operation Based Visual Cryptography," *IEEE Access*, Vol. 7, Issue 1, pp. 165496-165508, Nov., 2019. [**SCI 5-year IF: 3.671**].
36. Z. Zhou, **C.N. Yang**, Y. Yang, and X. Sun, "Polynomial-Based Google Map Graphical Password System against Shoulder-Surfing Attacks in Cloud Environment," *Complexity*, Vol. 2019, Article ID 2875676 (doi: 10.1155/2019/2875676), Nov. 2019. [**SCI 5-year IF: 2.800**].
37. X. Wu and **C.N. Yang**, "Invertible Secret Image Sharing with Steganography and Authentication for AMBTC Compressed Images", *Signal Processing: Image Communication*, Vol. 78, pp. 437-447, Oct. 2019. [**SCI 5-year IF: 3.347**].
38. Y.X. Liu, **C.N. Yang**, Q. Sun, S.Y. Wu, S.S. Lin, and Y.S. Chou, "Enhanced Embedding Capacity for the SMSD-based Data-hiding Method", *Signal Processing: Image Communication*, Vol. 78, pp. 216-222, Oct. 2019. [**SCI 5-year IF: 3.347**].
39. X. Wu and **C.N. Yang**, "Partial Reversible AMBTC-based Secret Image Sharing with Steganography," *Digital Signal Processing*, Vol. 93, pp. 22-33, Oct. 2019. [**SCI 5-year IF: 3.004**].
40. Z. Fu, F. Huang, X. Sun, A. Vasilakos, and **C.N. Yang**, "Enabling Semantic Search based on Conceptual Graphs over Encrypted Outsourced Data," *IEEE Transactions on Services Computing*, Vol. 12, No. 5, pp. 813-823, Sep., 2019. [**SCI 5-year IF: 7.059**].
41. Z. Zhou, J. Chen, **C.N. Yang**, and X. Sun, "Video Copy Detection Using Spatio-Temporal CNN Features," *IEEE Access*, Vol. 7, pp. 100658-100665, Aug., 2019. [**SCI 5-year IF: 3.671**].
42. **C.N. Yang**, Q. Sun, Y.X. Liu, and C.M. Wu, "A n-out-of-n Sharing Digital Image Scheme by Using Color Palette," *Electronics*, Vol. 8, Issue 7, 802, July, 2019. [**SCI 5-year IF: 2.408**].
43. C. Kim, D. Shin, **C.N. Yang**, and Y.S. Chou "Generalizing Hamming+k Data Hiding by Overlapped Pixels," *Multimedia Tools and Applications*, Vol. 78, pp. 17995- 18015, July, 2019. [**SCI 5-year IF: 2.517**].

44. J. Chen, Z. Zhou, Z. Pan, and **C.N. Yang**, "Instance Retrieval Using Region of Interest Based CNN Features," *Journal of New Media (Tech Science Press)*, Vol. 1, No. 2, pp.87-99, 2019.
45. **C.N. Yang**, S.Y. Wu, Y.S. Chou, and C. Kim, "Enhanced Stego-Image Quality and Embedding Capacity for the Partial Reversible Data Hiding Scheme," *Multimedia Tools and Applications*, Vol. 78, pp. 18595-18616, July, 2019. [**SCI 5-year IF: 2.517**].
46. Y.X. Liu, **C.N. Yang**, C.M. Wu, Q. Sun, and W. Bi, "Threshold Changeable Secret Image Sharing Scheme Based on Interpolation Polynomial," *Multimedia Tools and Applications*, Vol. 78, pp. 18653-18667, July, 2019. [**SCI 5-year IF: 2.517**].
47. **C.N. Yang**, Y.S. Chou, Y.X. Liu, and C. Kim, "Exploiting Error Control in Matrix Coding-based Data Hiding Over Lossy Channel," *Journal of Real-Time Image Processing*, Vol. 16, Issue 3, pp. 577-588, June, 2019. [**SCI 5-year IF: 2.137**].
48. Y.X. Liu, Y.Z. Zhang, and **C.N. Yang**, "Reducing File Size and Time Complexity in Secret Sharing Based Document Protection," *Mathematical Biosciences and Engineering*, Vol. 16(5): pp. 4802-4817, May, 2019. [**SCI 5-year IF: 1.887**].
49. J.Y. Lee, C. Kim, and **C.N. Yang**, "Reversible Data Hiding Using Inter-Component Prediction in Multiview Video Plus Depth," *Electronics*, Vol. 8, Issue 5, 514, May 2019. [**SCI 5-year IF: 2.408**].
50. X. Wu and **C.N. Yang**, "A Combination of Color-Black-and-White Visual Cryptography and Polynomial Based Secret Image Sharing" *Journal of Visual Communication and Image Representation*, Vol. 61, pp. 74-84, May 2019. [**SCI 5-year IF: 2.915**].
51. Y.X. Liu, **C.N. Yang**, and Q. Sun "Enhance Embedding Capacity for Switch Map Based Multi-group EMD Data Hiding," *Mathematical Biosciences and Engineering*, Vol. 16(5): pp. 3382-3392, April, 2019. [**SCI 5-year IF: 1.887**].
52. Z. Pan, **C.N. Yang**, V.S. Sheng, N. Xiong, and W. Meng, "Machine Learning for Wireless Multimedia Data Security," *Security and Communication Networks*, Vol. 2019, Article ID 7682306, 2 pages, April, 2019. [**SCI 5-year IF: 1.687**].
53. X. Wu, D. Chen, **C.N. Yang**, and Y.Y. Yang, "A (k, n) Threshold Partial Reversible AMBTC-based Visual Cryptography Using One Reference Image" *Journal of Visual Communication and Image Representation*, Vol. 59, pp. 550-562, Feb., 2019. [**SCI 5-year IF: 2.915**].
54. **C.N. Yang**, C.C. Wu, and Y.C. Lin "k out of n Region-Based Progressive Visual Cryptography," *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 29, pp. 252-262, Jan., 2019. [**SCI 5-year IF: 4.632**].

55. Z. Wu, Y.N. Liu, D. Wang, and **C.N. Yang** "An Efficient Essential Secret Image Sharing Scheme Using Derivative Polynomial," *Symmetry*, Vol. 11 Issue 1, 69, Jan., 2019. [**SCI 5-year IF: 2.612**].
56. C. Kim, D. Shin, L. Leng, and **C.N. Yang**, "Separable Reversible Data Hiding in Encrypted Halftone Image," *Displays*, Vol. 55, pp. 71-79, Dec., 2018. [**SCI 5-year IF: 2.219**].
57. W.J. Liu, P.P. Gao, W.B. Yu, Z.G. Ou, and **C.N. Yang**, "Quantum Relief Algorithm," *Quantum Information Processing*, Vol. 17, Issue 10: 280, Oct., 2018. [**SCI 5-year IF: 2.285**].
58. Y.X. Liu, **C.N. Yang**, Y.S. Chou, S.Y. Wu, and Q. Sun, "Progressive (k, n) Secret Image Sharing Scheme with Meaningful Shadow Images by GEMD and RGEMD," *Journal of Visual Communication and Image Representation*, Vol. 55, pp. 766-777, Aug., 2018. [**SCI 5-year IF: 2.915**].
59. **C.N. Yang**, F.H. Wu, and S.L. Peng, "Enhancing Multi-factor Cheating Prevention in Visual Cryptography Based Minimum (k, n)-connected Graph," *Journal of Visual Communication and Image Representation*, Vol. 55, pp. 660-676, Aug., 2018. [**SCI 5-year IF: 2.915**].
60. Y.X. Liu, **C.N. Yang**, S.Y. Wu, and Y.S. Chou, "Progressive (k, n) Secret Image Sharing Schemes Based on Boolean Operations and Covering Codes", *Signal Processing: Image Communication*, Vol. 66, pp. 77-86, Aug., 2018. [**SCI 5-year IF: 3.347**].
61. X. Wu, **C.N. Yang**, Y.T. Zhuang, and S.C. Hsu, "Improving Recovered Image Quality in Secret Image Sharing by Simple Modular Arithmetic", *Signal Processing: Image Communication*, Vol. 66, pp. 42-49, Aug., 2018. [**SCI 5-year IF: 3.347**].
62. Y.X. Liu, **C.N. Yang**, Y. Wang, L. Zhu, and W. Ji, "Cheating Identifiable Secret Sharing Scheme Using Symmetric Bivariate Polynomial, *Information Sciences*, Vol. 453, pp. 21-29, July, 2018. [**SCI 5-year IF: 6.524**].
63. P. Li, Z. Liu, and **C.N. Yang**, "A Construction Method of (t, k, n)-Essential Secret Image Sharing Scheme," *Signal Processing: Image Communication*, Vol. 65, pp. 210-220, July, 2018. [**SCI 5-year IF: 3.347**].
64. Y. Cao, Z. Zhou, **C.N. Yang**, and X. Sun, "Dynamic Content Selection Framework Applied to Coverless Information Hiding," *Journal of Internet Technology*, Vol. 19, No. 2, pp. 1179-1186, July, 2018. [**SCI 5-year IF: 0.765**].
65. C. Kim, D. Shin, **C.N. Yang**, and Y.S. Chou, "Improving Capacity of Hamming (n, k)+1 Stego-code by Using Optimized Hamming+k," *Digital Signal Processing*, Vol. 78, pp.284-293, July 2018. [**SCI 5-year IF: 3.004**].

66. Y.X. Liu, Q. Sun, and **C.N. Yang**, "(k, n) Secret Image Sharing Scheme Capable of Cheating Detection," EURASIP Journal on Wireless Communications and Networking, Article number: 72, Apr., 2018. [**SCI 5-year IF: 1.987**].
67. Z. Zhou, **C.N. Yang**, Y. Cao, and X. Sun, "Secret Image Sharing based on Encrypted Pixels," IEEE Access, Vol. 6, pp. 15021-15025, Mar., 2018. [**SCI 5-year IF: 3.671**].
68. Y.X. Liu, **C.N. Yang**, and Q. Sun, "Enhance Embedding Capacity of Generalized Exploiting Modification Directions in Data Hiding," IEEE Access, Vol. 6, pp. 5374-5378, Feb., 2018. [**SCI 5-year IF: 3.671**].
69. C. Kim, D. Shin, and **C.N. Yang**, "Study of detection method for spoofed IP against DDoS attacks," Personal and Ubiquitous Computing, Vol. 22, Issue 1, pp. 35-44, Feb., 2018. [**SCI 5-year IF: 2.636**].
70. C. Kim, D. Shin, and **C.N. Yang**, "Self-embedding Fragile Watermarking Scheme to Restoration of a Tampered Image Using AMBTC," Personal and Ubiquitous Computing, Vol. 22, Issue 1, pp. 11-22, Feb., 2018. [**SCI 5-year IF: 2.636**].
71. W.j. Liu, Y. Xu, **C.N. Yang**, P.P. Gao, and W.B. Yu, "An Efficient and Secure Arbitrary N-Party Quantum Key Agreement Protocol Using Bell States," International Journal of Theoretical Physics, Vol.57, pp. 195-207, Jan., 2018. [**SCI 5-year IF: 1.266**].
72. **C.N. Yang**, X. Wu, Y.C. Chou, and Z. Fu, "Constructions of General (k, n) Reversible AMBTC-based Visual Cryptography with Two Decryption Options," Journal of Visual Communication and Image Representation, Vol. 48, pp. 182-194, Oct., 2017. [**SCI 5-year IF: 2.915**].
73. Y.X. Liu and **C.N. Yang**, "Scalable Secret Image Sharing Scheme with Essential Shadows," Signal Processing: Image Communication, Vol. 58, pp. 49-55, Oct., 2017. [**SCI 5-year IF: 3.347**].
74. Z. Zhou, Q.M. Wu, **C.N. Yang**, X. Sun, and Z. Pan, "Coverless Image Steganography Using Histograms of Oriented Gradients-Based Hashing Algorithm," Journal of Internet Technology, vol. 18, pp. 1177-1184, Sep., 2017. [**SCI 5-year IF: 0.765**].
75. **C.N. Yang**, C.H. Wu, Z.X. Yeh, D. Wang, and C. Kim, "A New Sharing Digital Image Scheme with Clearer Shadow Images," Computer Standards & Interfaces, Vol. 51, pp. 118-131, Mar., 2017. [**SCI 5-year IF: 2.352**].
76. C. Kim, D. Shin, B. Kim, and **C.N. Yang**, "Secure Medical Images Based on Data Hiding Using A Hybrid Scheme with The Hamming Code, LSB, and OPAP," Journal of Real-Time Image Processing (doi: 10.1007/s11554-017-0674-7) published online Feb., 2017. [**SCI 5-year IF: 2.137**].

77. **C.N. Yang**, S.C. Hsu, and C. Kim, "Improving Stego Image Quality in Image Interpolation Based Data Hiding," *Computer Standards & Interfaces*, Vol. 50, pp. 209-215, Feb., 2017. [**SCI 5-year IF: 2.352**].
78. Z. Zhou, Y. Wang, Q.M. Wu, **C.N. Yang**, and X. Sun, "Effective and Efficient Global Context Verification for Image Copy Detection," *IEEE Transactions on Information Forensics and Security*, Vol. 12, No. 1, pp. 48-63, Jan., 2017. [**SCI 5-year IF: 7.273**].
79. **C.N. Yang**, J.K. Liao, and D. Wang, "New Privilege-based Visual Cryptography with Arbitrary Privilege Levels," *Journal of Visual Communication and Image Representation*, Vol. 42, pp. 121-131, Jan. 2017. [**SCI 5-year IF: 2.915**].
80. **C.N. Yang**, T.C. Tung, F.H. Wu, and Z. Zhou, "Color Transfer Visual Cryptography with Perfect Security," *Measurement*, Vol. 95, pp. 480-493, Jan., 2017. [**SCI 5-year IF: 3.778**].
81. C. Kim and **C.N. Yang**, "Data Hiding Based on Overlapped Pixels Using Hamming Code," *Multimedia Tools and Applications*, Vol. 75, Issue 23, pp 15651-15663, Dec., 2016. [**SCI 5-year IF: 2.517**].
82. F. Huang, Z. Fu, X. Sun, and **C.N. Yang**, "Privacy-preserving Outsourced Gene Data Search in Encryption Domain," *Security and Communication networks*, Vol. 9, Issue 18, pp. 5178-5186, Dec. 2016. [**SCI 5-year IF: 1.687**].
83. C. Kim, Dongkyoo Shin, Dongil Shin, and **C.N. Yang**, "Secure Protection of Video Recorder Video in Smart Car," *International Journal of Distributed Sensor Networks* (doi: 10.1177/1550147716681792), Vol. 12(12), Dec., 2016. [**SCI 5-year IF: 1.476**].
84. C. Kim, D. Shin, L. Leng, and **C.N. Yang**, "Lossless Data Hiding for Absolute Moment Block Truncation Coding Using Histogram Modification," *Journal of Real-Time Image Processing* (doi: 10.1007/s11554-016-0641-8) published online Oct., 2016. [**SCI 5-year IF: 2.137**].
85. Z. Zhou, **C.N. Yang**, and C. F. Chen, "Reducing Computations in Chang et al.'s on-line Electronic Check," *International Journal of Security and Its Applications*, Vol. 10, No. 10, pp. 271-288, Oct., 2016. [**EI**].
86. Z. Zhou, Y. Mu, **C.N. Yang**, and N. Zhao, "Coverless Multi-keywords Information Hiding Method Based on Text," *International Journal of Security and Its Applications*, Vol. 10, No. 9, pp. 309-320, Sep., 2016. [**EI**].
87. **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*, Vol. 12, Issue 2, pp. 483-494, Aug., 2016. [**SCI 5-year IF: 2.137**].
88. P. Li, **C.N. Yang**, and Q. Kong, "A Novel Two-in-one Image Secret Sharing Scheme Based on Perfect Black Visual Cryptography," *Journal of Real-Time Image Processing* (doi: 10.1007/s11554-016-0621-z) published online July, 2016. [**SCI 5-year IF: 2.137**].

89. **C.N. Yang**, C.H. Chen, and S.R. Cai, "Enhanced Boolean-based Multi Secret Image Sharing Scheme," *Journal of Systems and software*, Vol. 116, pp. 22-34, June 2016. [**SCI 5-year IF: 3.029**].
90. Z. Zhou, **C.N. Yang**, B. Chen, X. Sun, Q. Liu, and Q.M. Wu, "Effective and Efficient Image Copy Detection with Resistance to Arbitrary Rotation," *IEICE Transactions on Information and Systems*, Vol. E99-D, No. 6, pp. 1531-1540, June, 2016. [**SCI 5-year IF: 0.523**].
91. P. Li, **C.N. Yang**, and Z. Zhou, "Essential Secret Image Sharing Scheme with the Same Size of Shadows," *Digital Signal Processing*, Vol. 50, pp. 51-60, Mar., 2016. [**SCI 5-year IF: 3.004**].
92. **C.N. Yang**, L.Z. Sun, and S.R. Cai, "Extended Color Visual Cryptography for Black and White Secret Image," *Theoretical Computer Science*, Vol. 609, Part 1, pp. 143-161, Jan., 2016. [**SCI 5-year IF: 0.927**].
93. **C.N. Yang**, C. Kim, and Y.H. Lo "Adaptive Real-time Reversible Data Hiding for JPEG Images," *Journal of Real-Time Image Processing* (doi: 10.1007/s11554-015-0555-x), published online Dec., 2015. [**SCI 5-year IF: 2.137**].
94. **C.N. Yang**, J.B. Lai, and Z. Fu, "Protecting User Privacy for Cloud Computing by Bivariate Polynomial Based Secret Sharing," *Journal of Computing and Information Technology*, Vol. 23, No. 5, pp. 341–355, Dec., 2015. [**EI**].
95. L.Q. Hoa, N.H. Truong, C. Kim, and **C.N. Yang**, "(1, 7, 4) Data Hiding Scheme for Searching in Hidden Text with Automata," *Vietnam Journal of Computer Science*, Vol. 2, Issue 4, pp. 257-265, Nov., 2015. [**indexed by Google Scholar and DBLP**].
96. X. Yan, X. Liu, and **C.N. Yang**, "An enhanced threshold visual secret sharing based on random grids," *Journal of Real-Time Image Processing*(doi:10.1007/s11554-015-0540-4), published online Oct., 2015. [**SCI 5-year IF: 2.137**].
97. **C.N. Yang**, C.C. Wu, Y.C. Lin, and C. Kim, "Constructions and Properties of General (k, n) Block-Based Progressive Visual Cryptography," *ETRI Journal*, Vol. 37, No. 5, pp. 979-989, Oct., 2015. [**SCI 5-year IF: 1.081**].
98. **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: 6.524**].
99. C. Kim and **C.N. Yang**, "Watermark with DSA Signature Using Predictive Coding," *Multimedia Tools and Applications*, Vol. 74, Issue 14, pp. 5189-5203, July 2015. [**SCI 5-year IF: 2.517**].

100. **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**].
101. 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: 4.259**].
102. 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: 3.004**].
103. **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: 4.006**].
104. **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: 3.347**].
105. 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: 2.915**].
106. 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: 1.687**].
107. **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 Google Scholar**].
108. **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: 6.524**].
109. **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: 6.524**].
110. 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: 5.829**].

111. **C.N. Yang** and D. Wang, "Property Analysis of XOR Based Visual Cryptography," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 24, No. 2, pp. 189-197, Feb., 2014. [**SCI 5-year IF: 4.632**].
112. 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.
113. 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.
114. 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: 7.273**].
115. P. Li, **C.N. Yang**, Q. Kong, Y. Ma, and Z. Liu, "Sharing more information in gray visual cryptography scheme," Journal of Visual Communication and Image Representation, Vol. 24, Issue 8, pp. 1380-1393, Nov., 2013. [**SCI 5-year IF: 2.915**].
116. 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: 2.915**].
117. **C.N. Yang**, and C.C. Wu, "MSRC: (M)icropayment (S)cheme with Ability to (R)eturn (C)hanges," Mathematical and Computer Modelling, Vol. 58, pp. 96-107, July, 2013. [**2015 SCI 5-year IF: 1.602**].
118. **C.N. Yang**, P.W. Chen, H.W. Shih, and C. Kim, "Aspect Ratio Invariant Visual Cryptography by Image Filtering and Resizing," Personal and Ubiquitous Computing, Vol. 17, Issue 5, pp. 843-850, June, 2013. [**SCI 5-year IF: 2.636**].
119. H.C. Lin, **C.N. Yang**, C.S. Lai, and H.T. Lin, "Natural language letter based visual cryptography scheme," Journal of Visual Communication and Image Representation, Vol. 24, Issue 3, pp. 318-331, April, 2013. [**SCI 5-year IF: 2.915**].
120. **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: 0.987**].
121. 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. [**2012 SCI 5-year IF: 0.269**].

122. 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: 0.746**].
123. **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: 3.586**].
124. **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: 3.260**].
125. 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. 1325-1332, Jun., 2012. [**SCI 5-year IF: 3.029**].
126. **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. 799-810, May, 2012. [**SCI 5-year IF: 4.632**].
127. P. Li, P.J. Ma, X.H. Su, and **C.N. Yang**, "Improvements of a Two-in-one Image Secret Sharing Scheme based on Gray Mixing Model," *Journal of Visual Communication and Image Representation*, Vol. 23, Issue 3, pp. 441-453, Apr, 2012. [**SCI 5-year IF: 2.915**].
128. **C.N. Yang**, J.F. Ouyang, and L. Harn, "Steganography and Authentication in Image Sharing without Parity Bits," *Optics Communications*, Vol. 285, Issue 7, pp. 1725-1735, Apr., 2012. [**SCI 5-year IF: 1.945**].
129. **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 INSPEC].
130. **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: 4.006**].
131. **C.N. Yang** and Y.Y. Chu, "A general (k, n) scalable secret image sharing scheme with the smooth scalability," *Journal of Systems and Software*, vol. 84, pp. 1726-1733, 2011. [**SCI 5-year IF: 3.029**].
132. **C.N. Yang**, J.Y. He, "An Effective 16-bit Random Number Aided Query Tree Algorithm for RFID Tag Anti-Collision," *IEEE Communications Letters*, Vol. 15, No. 5, pp. 539-541, May, 2011. [**SCI 5-year IF: 3.260**].

133. **C.N. Yang**, G.C. Ye, and C. Kim, "Data Hiding in Halftone Images by XOR Block-Wise Operation with Difference Minimization," *KSI Transactions on Internet and Information Systems*, Vol. 5, Issue 2, pp. 457-476, Feb., 2011. [**SCI 5-year IF: 0.746**].
134. **C.N. Yang** and T.H. Chung, "A general multi-secret visual cryptography scheme," *Optics Communications* Vol. 283, Issue 24, pp. 4949-4962, Dec., 2010. [**SCI 5-year IF: 1.945**].
135. **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: 3.069**].
136. **C.N. Yang** and S.M. 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: 1.945**].
137. **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: 4.259**].
138. **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: 7.299**].
139. **C.N. Yang**, 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**].
140. **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: 0.577**].
141. **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: 0.494**].
142. **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: 1.218**].
143. **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: 7.299**].
144. **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: 4.006**].

145. **C.N. Yang** and T.S. Chen, "Security Analysis on Authentication of Images Using Recursive Visual Cryptography," *Cryptologia*, Vol. 32, Issue 2, pp. 131-136, Apr., 2008. [**SCI 5-year IF: 0.632**].
146. **C.N. Yang** and T.S. Chen, "Visual Secret Sharing Scheme: Prioritizing the Secret Pixels with Different Pixel Expansions to Enhance the Image Contrast," *Optical Engineering*, Vol. 46, Issue 9, pp. 097005-1 - 097005-19, Sep., 2007. [**SCI 5-year IF: 1.098**].
147. **C.N. Yang**, M.Y. Chen and C.S. Lai, "Applying RFID Technology in Warranty Service Information System," *International Journal of Services Operations and Informatics*, Vol. 2, No. 3, pp. 267-277, 2007. [**EI**].
148. **C.N. Yang** and T.S. Chen, "Extended Visual Secret Sharing Schemes: Improving the Shadow Image Quality," *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 21, No. 5, pp. 879-898, Aug., 2007. [**SCI 5-year IF: 1.346**].
149. **C.N. Yang**, G.J. Chen, T.S. Chen, and R. Lukac, "Error Spreading Control in Image Steganographic Embedding Schemes Using Unequal Error Protection," *Journal of Imaging Science and Technology*, Vol. 51, No. 4, pp. 380-385, Jul./Aug., 2007. [**SCI 5-year IF: 0.494**].
150. M.Y. Chen, **C.N. Yang** and C.S. Lai, "Authorized Tracking and Tracing for RFID Tags," *International Journal of Security and Its Applications*, Vol. 1, No. 1, pp. 1-13, Jul., 2007. [**EI**].
151. **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: 3.029**].
152. **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: 2.030**].
153. **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: 4.006**].
154. **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: 7.299**].
155. **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: 3.798**].

156. **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: 0.324**].
157. **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: 0.324**].
158. **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: 2.807**].
159. **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: 2.807**].
160. **C.N. Yang**, S.H. Chu and B.L. Lu, "Failure of Kak-Quantum Key Distribution Protocol," Pramana - journal of physics, Vol.64, No.1, pp. 1-4, Jan. 2005. [**SCI 5-year IF: 1.509**].
161. **C.N. Yang** and T.S. Chen, "Aspect Ratio Invariant Visual Secret Sharing Schemes with Minimum Pixel Expansion," Pattern Recognition Letters, Vol. 26, Issue 2, pp. 193-206, 2005. [**SCI 5-year IF: 3.615**].
162. **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: 3.615**].
163. C.C. Lin, C.S. Laih, and **C.N. Yang**, "New Audio Secret Sharing Schemes with Time Division Technique," Journal of Information Science and Engineering, Vol.19 No.4, pp.605-614, Jul., 2003. [**SCI5-year IF: 0.577**].
164. **C.N. Yang**, "A Note on Efficient Color Visual Encryption," Journal of Information Science and Engineering, Volume 18, Number 3, pp.367-372, May, 2002. [**SCI5-year IF: 0.577**].
165. **C.N. Yang**, "Improvements on Audio and Optical Cryptography," Journal of Information Science and Engineering, Volume 18, Number 3, pp.381-391, May, 2002. [**SCI5-year IF: 0.577**].
166. **C.N. Yang** and C.S. Laih, "New Colored Visual Secret Sharing Schemes," Designs Codes and Cryptography, Volume 20, Issue 3, pp.325~336, Jul., 2000. [**SCI 5-year IF: 1.352**].
167. **C.N. Yang** and C.S. Laih, "DCm Codes for Constructing t-EC/AUED Codes," IEEE Trans. on Computers, vol. C-47, NO. 4, pp. 492-495, Apr., 1998. [**SCI 5-year IF: 4.006**].
168. **C.N. Yang** and C.S. Laih, "A Systematic Construction of Inner Codes in Generalized Concatenated Codes for Correcting Unidirectional Byte Errors," IEICE Trans. on

Fundamentals of Electronics, Communications, and Computer Sciences, pp. 351-354, Feb., 1998. **[SCI 5-year IF: 0.324]**.

169. **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: 0.324]**.

170. **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: 0.959]**.

171. 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: 1.485]**.

172. C.S. Laih and **C.N. Yang**, "On The Analysis and Design of Group Theoretical t-syEC/AUED Codes," IEEE Trans. on Computers, vol. C-45, pp. 103-108, Jan., 1996. **[SCI 5-year IF: 4.006]**.

(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. **C.N. Yang**, Y.C. Chen, Y.C. Chou, T.K. Chang, and C. Kim, "Enhancing Image Compression by Adaptive Block Truncation Coding with Edge Quantization," Proc. of 2019 International Workshop on Smart Info-Media Systems in Asia (SISA 2019), pp. 125-130, Tokyo, Japan, Sep., 2019.

02. **C.N. Yang**, Y.C. Chen, S.Y. Chen, and S.Y. Wu, "A Reliable E-commerce Business Model Using Blockchain Based Product Grading System," Proc. of the 4th IEEE International Conference on Big Data Analytics (ICBDA 2019), pp. 341-344, ISBN 978-1-7281-1282-4, Suzhou, China, Mar., 2019.

03. C. Kim, D. Shin, and **C.N. Yang**, "High Capacity Data Hiding Based on AMBTC and Interpolation," 2018 International Conference on Security with Intelligent Computing and Big-data Services (SICBS 2018), AISC Vol. 895, pp. 858-867 Springer, Guilin, China, Dec., 2018.

04. Y. He, X. Xu, D. Wang, S. Li, X. Zhao, and **C.N. Yang**, "A Secret Sharing Scheme of Dynamic Threshold with Cheaters Detection and Identification," 2018 International Conference on Security with Intelligent Computing and Big-data Services (SICBS 2018), AISC Vol. 895, pp. 638-649, Springer, Guilin, China, Dec., 2018.
05. H. Liu, D. Wang, X. Zhao, S. Li, and **C.N. Yang**, "An Analysis on Inverted Mirrored Moiré and Ribbon of Band Moiré," 2018 International Conference on Security with Intelligent Computing and Big-data Services (SICBS 2018), AISC Vol. 895, pp. 685-698, Springer, Guilin, China, Dec., 2018.
06. **C.N. Yang**, J.M. Li, S.Y. Wu, and S.S. Lin, "Secret Image Sharing with Public Reconstruction over Distributed Cloud Network," 2018 International Conference on Cloud Computing, Big Data and Blockchain (ICCB 2018), pp. 1-8, doi: 10.1109/ICCB.2018.8756467, Fuzhou, China, Nov., 2018.
07. **C.N. Yang**, T.J. Lin, S.Y. Wu, S.S. Lin, and W. Bi, "Cost Effective Hash Chain Based Key Pre-Distribution Scheme for Wireless Sensor Network," Proc. of The 18th IEEE International Conference on Communication Technology (ICCT 2018), Vol. 2, pp. 518-522, ISSN 2576-7828, Chongqing, China, Oct., 2018.
08. **C.N. Yang**, S.Y. Wu, Y.S. Chou, and C. Kim, "Performance Improvements of Partial Reversible Data Hiding Scheme," IMCEC 2018 (2nd IEEE Advanced Management, Communicates, Electronic and Automation Control Conference), IEEE Proc. (ISBN 978-1-5386-1802-8), pp. 866-870, Xi'an, China, May, 2018.
09. **C.N. Yang**, J.M. Li, and Y.S. Chou, "On the Analysis of k-Secure t-Conference Key Distribution Scheme," ICCNS 2017 (7th International Conference on Communication and Network Security), ACM Proc. ISBN 978-1-4503-5349-6 (<https://doi.org/10.1145/3163058.3163076>), Tokyo, Japan, Nov., 2017.
10. C. Kim, D. Shin, **C.N. Yang**, and Y.S. Chou, "Capacity Enhancement of Hamming+k Data Hiding By Pixel Overlapping Approach," accepted and to be published at ICCT 2017 (17th IEEE International Conference on Communication Technology), IEEE Proc. (ISBN: 978-1-15090-3943-2), Vol. 4, pp. 1242-1246, Chengdu, China, Oct., 2017.
11. S.Y. Tsai, C.C. Wu, **C.N. Yang**, and Y. C. Chou, "Development and Field Trial of Electronic Medical Record with Picture Processing Capabilities," Healthcare'17 (The 2017 International Conference on Healthcare Science and Engineering), Zhengzhou, China, June, 2017.
12. **C.N. Yang**, Z.X. Yeh, S.C. Hsu, and Z. Fu, "Enhancing Security for Two-Party Comparison over Encrypted Data," ICSAI 2016 (the 3rd International Conference on Systems and Informatics), pp. 439-443, Shanghai, China, Nov., 2016.

13. T.K. Chang, **C.N. Yang**, and F.H. Yeh, "Using the Same PayWord Chains of a Single Account from Multiple Devices," JCSSE2016 (The 13th International Joint Conference on Computer Science and Software Engineering), Khon Kaen, Thailand, July, 2016.
14. S. Cimato, E. Damiani, S. Mella, and **C.N. Yang**, "Key Recovery in Public Clouds: A Survey on Cross-VM Side Channel Attacks," LNCS 10039, pp. 456-467, ICCCS 2016 (International Conference on Cloud Computing and Security), Nanjing, China, July, 2016.
15. **C.N. Yang**, J.K. Liao, F.H. Wu, and Y. Yamaguchi, "Developing Visual Cryptography for Authentication on Smartphones," LNICST 173, pp. 189-200, Industrial IoT 2016 (EAI International Conference on Industrial IoT Technologies and Applications), Guangzhou, China, Mar., 2016.
16. **C.N. Yang**, S. Cimato, J.H. Wu, and S.R. Cai, "3-out-of-n Cheating Prevention Visual Cryptographic Schemes," ICISSP 2016 (International Conference on Information Systems Security and Privacy), Proc. of ICISSP 2016, pp. 400-406, Rome, Italy, Feb., 2016.
17. **C.N. Yang**, F.H. Wu, S.Y. Tsai, and W.C. Kuo, "E-health Services for Elderly Care Based on Google Cloud Messaging," IEEE Smart City 2015 (International Conference on Smart City), pp. 9-12 (doi: 10.1109/SmartCity.2015.39), Chengdu, China, Dec., 2015.
18. 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.
19. X. Yan, G. Chen, and **C.N. Yang**, "Random Grids-based Threshold Visual Secret Sharing with Improved Contrast by Boolean Operations," LNCS 9023, pp. 319-332, IWDW 2014 (13-th International Workshop on Digital-forensics and Watermarking), Taipei, Taiwan, Oct., 2014.
20. 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.
21. 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.
22. 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.
23. 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.

24. **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.
25. C. Kim and **C.N. Yang**, "Steganography based on Low Density Parity Check (LDPC)," LNEE 309, pp. 25-30, FutureTech 2014 (The 9th FTRA International Conference on Future Information Technology), Zhangjiajie, China, May, 2014.
26. C. Kim and **C.N. Yang**, "Improving Data Hiding Capacity Based on Hamming Code," LNEE 301, pp. 697-706, FCC 2014 (FTRA Frontier and Innovation in Future Computing and Communications), Auckland, New Zealand, Jan., 2014.
27. 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.
28. **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.
29. **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.
30. 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.
31. **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.
32. 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), Daegu, Korea, May, 2013.
33. **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.
34. 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.

35. 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.
36. **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.
37. F. Liu, T. Guo, C. Wu, and **C.N. Yang**, "Flexible Visual Cryptography Scheme Without Distortion," LNCS 7128, pp. 211-227, IWDW 2011, (10th International Workshop on Digital-forensics and Watermarking), Atlantic City, USA, Oct., 2011.
38. **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.
39. **C.N. Yang**, G.C. Wu, and C.C. Wu, "Certificate-in-Certificate: Designing A New Certificate Extension for Mobile-Commerce," The 2011 International Conference on e-Commerce, e-Administration, e-Society, e-Education, and e-Technology (e-CASE & e-Tech 2011), pp. 554-564, Tokyo, Japan, Jan., 2011.
40. **C.N. Yang**, Y.C. Kun, J.Y. He, and C.C. Wu, "A Practical Implementation of Ternary Query Tree for RFID Tag Anti-Collision," The 2010 IEEE International Conference on Information Theory and Information Security (ICITIS 2010), pp. 283-286, Beijing, China, Dec., 2010.
41. **C.N. Yang**, Y.C. Kun, C.Y. Chiu and Y.Y. Chu, "A New Adaptive Query Tree on Resolving RFID Tag Collision," The IEEE International Conference on RFID-Technology and Applications 2010 (IEEE RFID-TA2010), pp. 153-158, Guangzhou, China, June, 2010.
42. **C.N. Yang**, C.C. Wu, C.Y. Chiu, S.Y. Chiou, and W.C. Liao, "Micropayment Schemes with Ability to Return Changes," The 11th International Conference on Information Integration and Web-based Applications & Services (iiWAS2009), pp. 354-361, Kuala Lumpur, Malaysia, Dec. 2009.
43. **C.N. Yang**, C.S. Laih, C.C. Wu, and G.C. Wu, "RWSIS: (R)FID-enabled (W)arranty (S)ervice (I)nformation (S)ystem on Resolving Security and Privacy," The 2009 International Symposium on IT and its Applications (ITA-09) in conjunction with IEEE CSA 2009, pp. 452-456, Jeju Island, Korea, Dec. 2009.
44. **C.N. Yang**, J.R. Chen, C.Y. Chiu, G.C. Wu, and C.C. Wu, "Enhancing Privacy and Security in RFID-Enabled Banknotes," 2009 IEEE International Workshop on Security in e-Science and e-Research (ISSR2009) to be held in conjunction with IEEE ISPA2009, Chengdu, China, pp. 439-444, Aug. 2009.

45. **C.N. Yang**, Jia-Sing Su and Shun-Yu Cheng, "A Multilevel Secure Key Predistribution Scheme in Wireless Sensor Networks," The 4th International Conferences on Information Security and Cryptology (Inscrypt 2008), Beijing, China, Dec. 2008.
46. **C.N. Yang**, Y.Y. Yang, T.S. Chen and G.C. Ye, "New Steganography Scheme in Halftone Images," The 4th International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP-2008), pp 331-336, Harbin, China, Aug. 2008.
47. **C.N. Yang**, C.Y. Chiu, T.S. Chen and G.C. Ye, "Wireless Image Transmission Using Burst Error Correction Codes," The 5th IET Visual Information Engineering 2008 Conference (VIE'08), pp 331-336, Xi'an, China, July 2008.
48. **C.N. Yang**, A.G. Peng and T.S. Chen, "Reducing Shadow Size for Visual Cryptography Scheme," The Ninth International Conference on Information and Communications Security (ICICS 2007), Zhengzhou, China, Dec. 2007.
49. **C.N. Yang** and T.S. Chen, "An Image Secret Sharing Scheme with the Capability of Previewing the Secret Image," IEEE ICME 2007 International Conference on Multimedia & Expo (ICME'07), pp. 1535-1538, Beijing, China, July 2007.
50. **C.N. Yang**, K.H. Yu and R. Lukac, "User-Friendly Image Sharing in Multimedia Database Using Polynomials with Different Primes", LNCS 4352, pp. 443-452, MMM 2007 (International MultiMedia Modeling Conference), Singapore, January, 2007.
51. **C.N. Yang** and T.S. Chen, "Visual Secret Sharing Scheme: Improving the Contrast of a Recovered Image via Different Pixel Expansions," LNCS 4141, pp.468-479, ICIAR (International Conference on Image Analysis and Recognition) 2006, Portugal, Sep., 2006.
52. M.Y. Chen, **C.N. Yang** and C.S. Laih, "Authorized Tracking and Tracing for RFID Tags," LNCS 4097, pp. 435-444, EUC 2006 Workshops: RFID and Ubiquitous Sensor Networks, Korea, Aug., 2006.
53. **C.N. Yang**, C.C. Wang and T.S. Chen, "Real Perfect Contrast Visual Secret Schemes with Reversing," LCNS 3989, pp. 433-447, ACNS (Applied Cryptography and Network Security) 2006, Singapore, June, 2006.
54. **C.N. Yang** and B.L. Lu, "Improved Tracing Algorithm for Random-Error-Resilient Collusion-Secure Fingerprinting Codes," P2P workshop in InfoScale2006, Hong Kong, May, 2006.
55. **C.N. Yang** and T.S. Chen, "Extended Visual Secret Sharing Schemes with High-Quality Shadow Images Using Gray Sub Pixels", LNCS 3656, pp. 1184-1191, ICIAR (International Conference on Image Analysis and Recognition) 2005, Canada, September, 2005.

56. **C.N. Yang** and T.S. Chen, "New Aspect Ratio Invariant Visual Secret Sharing Schemes Using Square Block-wise Operation", LNCS 3656, pp. 1167–1174, ICIAR (International Conference on Image Analysis and Recognition) 2005, Canada, September, 2005.
57. **C.N. Yang**, T. Lin, and T.S. Chen, "Enhanced Fair Micropayment Scheme Based on Hash Chain to Avoid Merchant Collusion", pp. 39 - 42, ISCE 2005, Macau, June, 2005.
58. **C.N. Yang** and T.S. Chen, "New Size-Reduced Visual Secret Sharing Schemes with Half Reduction of Shadow Size", LNCS 3480, pp. 19–28, ICCSA (International Conference on Computational Science and its Applications) 2005, Singapore, May, 2005.
59. **C.N. Yang**, and G.J. Chen, "Error Spreading Control in Steganography Embedding Scheme Using Unequal Error Protection, " 2004 International Computer Symposium (ICS2004), pp.443-448, Taiwan, Dec., 2004.
60. **C.N. Yang** and T.S. Chen, "An Algorithm to Enumerate Codewords for Third-Order Spectral-Null Codes," Proceedings, 2004 IEEE International Symposium on Information Theory, pp.88, Chicago, USA, June 27-July 2, 2004.
61. **C.N. Yang**, H.T. Teng and T.S. Chen, "Using One-way Hash Function to Solve the Reusable Unit Key Problem in Bluetooth Security," The 8th World Multi-Conference on SYSTEMICS, CYBERNETICS AND INFORMATICS, SCI 2004, pp.29-32, Florida, USA, July, 2004.
62. **C.N. Yang** and H.T. Teng, "An Efficient Method for Finding Minimum Hash Chain of Multi-Payword Chains in Micropayment," IEEE Conference on E-Commerce, pp.45-48, California, USA, June, 2003.
63. **C.N. Yang**, T.Y. Cheng and C.C. Kuo, "Enhanced Wireless IEEE 802.11b Protocols Resistant to the Keystream Reuse Attack," Proceedings of the 2002 International Computer Symposium, Volume 2, pp.1035-1039, Taiwan, Dec., 2002.
64. **C.N. Yang** and C.C. Kuo, "Enhanced Quantum Key Distribution Protocols Using BB84 and B92," Proceedings of the 2002 International Computer Symposium, Volume 2, pp.951-959, Taiwan, Dec., 2002.
65. **C.N. Yang** and C.C. Kuo, "New Efficient Quantum Key Distribution Protocol," SPIE's Photonics Asia 2002, Vol. 4917, pp.54-58, Shanghai, China, Oct., 2002.
66. **C.N. Yang**, "An improvement on code for detection of tampering in write-once optical disks," 2000 International Computer Symp. Proceedings (ICS 2000), Workshop on cryptology and information security, pp. 84-90, Taiwan, Dec., 2000.
67. C.S. Lai, C.C. Lin, and **C.N. Yang**, "The Recent Development of E-government and PKI in ROC," SSGRR 2000 Computer & eBusiness Conference, Italy, July 31~August 6, 2000.

68. **C.N. Yang** and C.S. Lai, "New (k, k) visual secret sharing schemes using hierarchical structure technique," 1998 International Computer Symp. Proceedings (ICS'98), Workshop on cryptology and information security, pp.148-154, Taiwan, Dec., 1998.
69. **C.N. Yang**, Y.B. Yeh, and C.S. Lai, "A dynamic password visual authentication scheme through Internet," 16-th International Telecommunication Symp. (ITS'98), vol. III, pp.163-167, Taiwan, Sep., 1998.
70. **C.N. Yang** and C.S. Lai, "On the design of t -EC/AUED codes," *IEEE International Symposium on Information Theory*, Ulm, Germany, June 29-July 4, 1997.
71. Y.C. Lee, **C.N. Yang**, and C.S. Lai, "An authentication protocol for the GSM," 15-th International Telecommunication Symp. (ITS'96), vol. I, pp.173-176, Taiwan, Nov., 1996.

Local Conference Papers:

72. **C.N. Yang**, J.L. Yang, C.Z. Kang, M.J. Chung, and C.C. Wu, "Offline-to-Online Micropayment: Deploying Online Micropayment on Ethereum Smart Contract with Less Gas Cost," TANET 2021, Dec., 2021.
73. **C.N. Yang**, C.L. Kao, H.Y. Lin, and H.W. Cai, "Fake News Detection Framework by Using Blockchain Based Consensus Mechanism and News Agency Validation," 2021 Conference on Information Technology and Applications in Outlying Islands (ITAOI 2021), May, 2021.
74. **C.N. Yang**, Y.T. Lien, Z.R. Lin, P.Y. Chen, and H.Y. Lin, "A Blockchain-Based Framework for Digital Diploma in Decentralized Storage Systems IPFS and Swarm," TANET 2020, Oct. 2020.
75. **C.N. Yang**, S.Y. Chen, Y.C. Kao, S.Y. Hsiang, H.L. Lu, I.T. Chuang, "Learning Coin for Fair Online Course Selection System Based on Blockchain," TANET 2018, Oct. 2018.
76. **C.N. Yang**, J.X. Li, J. Chen, Y.J. Huang, and S.Y. Wu, "Visual QR Code Based Class Attendance Roster," TANET 2018, Oct. 2018.
77. **C.N. Yang**, T.Y. Wei, Y.M. Huang, M.S. Mo, and Y.T. Zhuang, "CAPTCHA-like Content Based Graphical Password by Data Hiding," NCS (National Computer Symposium) 2017, Dec., 2017.
78. **C.N. Yang**, W.C. Hsu, and Y.T. Zhuang, "Development of Chapter on Demand for eBook Online Ordering System," NCS (National Computer Symposium) 2017, Dec., 2017.
79. **C.N. Yang**, Y.T. Zhuang, S.C. Hsu, "Google Map Graphical One-time Password," TANET 2016, Oct. 2016.

80. **C.N. Yang**, Z.N. Lin, J.K. Liao, and Y.F. Lee, "A Study of Intrusion Detection Tool Snort on Digital Forensics," Conference on Information Technology and Applications in Outlying Islands (ITAOI 2015), pp. 815-819, May, 2015.
81. **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.
82. **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.
83. **C.N. Yang**, C.Y. Chiu, and S.R. Cai, "Mobile Authentication Based on Google Cloud Messaging," TANET 2013, Oct. 2013.
84. **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.
85. **C.N. Yang** and J.B. Lai, "Enhancing Security in Google Map Based Graphical Passwords by Coordinate Shifting Approach," 2013 Conference on Information Technology and Applications in Outlying Islands (ITAOI 2013), pp. 1253-1258, May, 2013.
86. **C.N. Yang**, L.W. Hang, W.J. Chang, and C.W. Chiang, "Enhancing Security in Google Map Based Graphical Passwords," TANET 2012, Oct. 2012.
87. **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.
88. **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).
89. **C.N. Yang**, C.Y. Lin, S.L. Chen, H.C. Huang and Y.Y. Chu, "A Secure Digital Photo Frame to Share Photos Using DE2-70," 2010 Workshop on Consumer Electronics, pp. 925-928, Nov., 2010.
90. **C.N. Yang**, S.H. Lin, C.S. Shu, S. Huang and C.Y. Chiu, "Combing SiB and QR Code for Multi-Authority Wireless Authentications," 2008 Workshop on Consumer Electronics, pp. 544-548, Dec 2008.
91. **C.N. Yang**, S.U. Cheng, Y.C. Kun, G.C. Wu and T.H. Chung, "RFID Enabled Passenger with Bicycle Transit Auto-Payment Scheme in MRT," TANET 2008, Oct. 2008.
92. **C.N. Yang** and T. S. Chen, "On The Analysis of Visual Cryptography Scheme Underlying XOR Operation," Cryptology and Information Security Conference 2008 (CISC2008), pp. 16-30, May 2008.

93. **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.
94. **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.
95. **C.N. Yang**, C. E. Yen, C. H. Wang, C. M. Chen, T. S. Chen, and Y. F. Lee, "Campus Micropayment System by Mobile Barcode," TANET 2007, Oct, 2007.
96. **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.
97. **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.
98. **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.
99. **C.N. Yang**, T.S. Chen, Y.C. Lin, Y.F. Yu, Y.F. Chen, C.Y. Chiu and Y.F. Lee, "Access Control for Mouse and Network Functions in Computer Classroom Using RFID Technique," TANET 2006, Nov. 2006.
100. **C.N. Yang**, T.S. Chen, K.H. Yu and C.C. Wang, "Cheating-Immune Secret Image Sharing Scheme with Steganography," Information Security Conference, pp.250-257, June, 2006.
101. **C.N. Yang**, K. N. Chen and A.G. Peng, "A Reliable Tree-Based Revocation Scheme in Grid Computing System", The Second Workshop on Grid Technologies and Applications WOGTA 2005, pp. 44-50, Dec. 2005.
102. Y.F. Lee, B.F. Liou, **C.N. Yang**, H.C. Chi, "Automatic IP Management," Proc. TANET 2005, Taichung, Oct. 2005.
103. **C.N. Yang**, Z.W. Chen and C.C. Chiang, "A Slight Secret Key Storage Requirement Watermarking Scheme for Image Authentication", 18th IPPR Conference on Computer Vision, Graphics and Image Processing (CVGIP 2005), pp. 1038-1041, Aug. 2005.
104. **C.N. Yang** and S.H. Chu, "A Simple and Efficient Quantum Dense Key Distribution Protocol Using Single Polarized Photon", Information Security Conference, pp. 382-388, June 2004.
105. **C.N. Yang**, C.C. Kuo, and T.Y. Cheng, "Enhancement of Known IV attack for WEP-like Systems", National Computer Symposium on Information Security, pp.1205-1212, Dec. 2003.

106. **C.N. Yang** and T.S. Chen, "Image Size Invariant Visual Secret Sharing Schemes for Gray Level Image", Information Security Conference, pp. 464-471, Aug. 2003.
107. C.C. Lin, C.S. Lai and **C.N. Yang**, "Audio Cryptography Schemes based on the time division technique," Proceedings of 12-th National Conference on Information Security, pp.407-414, May 2002.
108. **C.N. Yang**, Y.H. Liang, and W.H. Chou, "New Visual Secret Sharing Scheme with Non-Expansible Shadow Size Using Non-binary Sub Pixel," National Computer Symposium on Information Security, pp. F074~F085, Dec., 2001.
109. **C.N. Yang** and T.L. Wu, "Visual Secret Sharing Schemes with Multiple Shared Secrets," Proceedings of the Eleventh National Conference on Information Security, pp. 99-105, May 2001.
110. C.H. Shi, S.L. Peng, and **C.N. Yang**, "Efficient Generation of Constant Weight Codes in Cryptosystem," Proceedings of the Tenth National Conference on Information Security, pp. 149-160, May, 2000.
111. **C.N. Yang** and T.L. Wu, "A Colored Visual Secret Sharing Scheme Based on the Additive Color Mixing of Light," Proceedings of the Tenth National Conference on Information Security, pp. 180-189, May, 2000.
112. **C.N. Yang** and C.S. Lai, "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- C.N. Yang**, S.L. Peng, and L.C. Jain, Security with Intelligent Computing and Big-data Services (Springer, ISBN: 978-3-030-16945-9), 2019.
02. **Book Chapter- Z. Zhou, Y. Cao, X. Sun, and C.N. Yang**, Forgery Detection in Digital Images, in the book Encyclopedia of Image Processing, Publisher: CRC Press/Taylor & Francis, ISBN: 9781482244908, 2018.
03. **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.
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

- Best Paper Award in TANET 2018. The title of paper is “Learning Coin for Fair Online Course Selection System Based on Blockchain”.
- 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”.



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■ Journals

- Guest Editor- Special Issue "Information Theory and Its Applications in Multimedia Security and Processing" for Entropy.
- Guest Editor- Special Issue "Resolution enhancement of images with the help of pattern recognition applications" for Gene Expression Patterns.
- Guest Editor- Special Issue "Applying Visual Cryptography to Data Hiding, Watermarking and Secret Image Sharing for Enhancement of Information Security" for Journal of Visual Communication and Image Representation.
- Guest Editor- Special Issue "New Cryptographic Technologies and Artificial Intelligence in Outsourced Data Security" for Security and Communication Networks.
- Guest Editor- Special Issue "Computational Intelligence Techniques for Information Security and Forensics in IoT Environments" for Wireless Communications and Mobile Computing.
- Associate Editor- Computer Modeling in Engineering & Sciences (CMES).

- Guest Editor- Special Issue "Computing Methods in Steganography and Multimedia Security" for Mathematics.
- Guest Editor- Special Issue "Intelligent Models for Security and Resilience in Cyber Physical Systems" for Computer Modeling in Engineering & Sciences (CMES).
- Guest Editor- Special Issue "Deep Learning for Real-time Information Hiding and Forensics" for the Journal of Real-Time Image Processing (JRTIP).
- Guest Editor- Special Issue "Recent Advances in Video Coding and Security" for IEEE Access.
- Guest Editor- Special Issue "Machine Learning for Wireless Multimedia Data Security" for Security and Communication Networks.
- Guest Editor- Special Issue "Symmetry in Computing Theory and Application" for Symmetry.
- Guest Editor- Special Issue "Advanced Technology for Smart Home Automation and Entertainment" for Personal and Ubiquitous Computing (PAUC, springer journal).
- Guest Editor- Special Issue "Mobile and Smartphone Forensics in Mobile System" for Mobile Information Systems.
- Guest Editor- Special Issue "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 "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

- KES 2022- **International Program Committee Member** of The 26th KES International Conference on Knowledge-Based and Intelligent Information & Engineering Systems 2022 (KES 2022).

- SAPSE 2022- **Program Committee Member** of 14th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2022) in conjunction with COMPSAC 2022.
- AIIPCC 2022- **Technical Program Committee Member** of The Third International Conference on Artificial Intelligence, Information Processing and Cloud Computing (AIIPCC 2022).
- ICBDC 2022- **Publicity Co-Chair** of 2022 7th International Conference on Big Data and Computing (ICBDC 2022)
- CSEE 2022- **Technical Committee Member** of 2022 3rd International Conference on Computer Science, Engineering and Education (CSEE 2022).
- CFDSP 2022- **Technical Committee Member** of 2022 International Conference on Frontiers of Digital Signal Processing (CFDSP 2022).
- ECCSIT 2021- **Technical Committee Member** of 2021 European Conference on Computer Science and Information Technology (ECCSIT 2021).
- ICC 2021- **Technical Program Committee Member** of 2021 IEEE 7th International Conference on Computer and Communications (ICC 2021).
- WBDE 2021- **Conference Co-Chair** of 2021 Workshop on Big Data Engineering (WBDE 2021).
- VSIP 2021- **Technical Committee Member** of 2021 3rd International Conference on Video, Signal and Image Processing (VSIP 2021)
- ASPAI 2021- **International Program Committee Member** of the Third International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI 2021).
- CSSE 2021- **Program Committee Chair** of 2021 4th International Conference on Computer Science and Software Engineering (CSSE 2021).
- KES 2021- **International Program Committee Member** of The 25th KES International Conference on Knowledge-Based and Intelligent Information & Engineering Systems 2021 (KES 2021).
- MLIOB 2021- **Program Committee Member** of 2nd International Conference on Machine Learning, IOT and Blockchain (MLIOB 2021).
- IWACCE 2021- **Technical Committee Member** of International Workshop on Automation, Control and Communication Engineering (IWACCE 2021).
- CBW 2021- **Program Committee Member** of 2nd International Conference on Cloud, Big Data and Web Services (CBW 2021).

- ICAIS 2021- **Technical Program Committee Member** of The 7th International Conference on Artificial Intelligence and Security (ICAIS 2021).
- SAPSE 2021- **Program Committee Member** of 13th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2021) in conjunction with COMPSAC 2021.
- ICBDC 2021- **Publicity Chair** of 2021 6th International Conference on Big Data and Computing (ICBDC 2021).
- AIIPCC 2021- **Technical Committee Member** of The Second International Conference on Artificial Intelligence, Information Processing and Cloud Computing (AIIPCC 2021).
- SIGNAL 2021- **Technical Program Committee Member** of The Fifth International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2021).
- BIGML 2021- **Program Committee Member** of 2nd International conference on Big Data, Machine learning and Applications (BIGML 2021).
- SOEN 2021- **Program Committee Member** of 6th International Conference on Software Engineering (SOEN 2021).
- ITIOT 2021- **Technical Committee Member** of 2021 2nd International Conference on Information Technology and Internet of Things (ITIOT 2021).
- CBDA 2021- **Program Committee Member** of 2nd International Conference on Big Data (CBDA 2021).
- ACSTY 2021- **Program Committee Member** of 7th International Conference on Advances in Computer Science and Information Technology (ACSTY 2021).
- ICBDA 2021- **Publicity Co-Chair** of 2021 6th International Conference on Big Data Analytics (ICBDA 2021).
- SEAS 2021- **Program Committee Member** of 10th International Conference on Software Engineering and Applications (SEAS 2021).
- CFDSP 2021- **Technical Committee Member** of 2021 International Conference on Frontiers of Digital Signal Processing (CFDSP 2021).
- CSEE 2021- **Technical Committee Member** of 2021 2nd International Conference on Computer Science, Engineering and Education (CSEE 2021).
- ICCIoT 2021- **Program Committee Member** of the 2nd International Conference on Cloud and Internet of Things (ICCIoT 2021).
- BDEIM 2020- **Conference Chair** of 2020 International Conference on Big Data Economy and Information Management (BDEIM 2020).

- EBEE 2020- **Conference Technical Committee Member** of 2020 2nd International Conference on E-Business and E-commerce Engineering (EBEE 2020).
- VISIP 2020- **Technical Committee Member** of 2020 2nd International Conference on Video, Signal and Image Processing (VSIP 2020).
- JSE 2020- **Program Committee Member** of 9th International Conference on Software Engineering and Applications (JSE 2020).
- IoTE 2020- **Program Committee Member** of International Conference on Internet of Things & Embedded Systems (IoTE 2020).
- SAPSE 2020- **Program Committee Member** of 12th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2020) in conjunction with COMPSAC 2020.
- ICCC 2020- **Technical Program Committee Member** of 2020 IEEE 6th International Conference on Computer and Communications (ICCC 2020).
- BIOTC 2020- **Technical Committee Member** of 2nd Blockchain and Internet of Things Conference (BIOTC 2020).
- ICCNS 2020- **Technical Committee Member** of 2020 the 10th International Conference on Communication and Network Security (ICCNS 2020).
- ICCT 2020- **International Technical Committee Member** of 2020 20th IEEE International Conference on Communication Technology (ICCT 2020).
- ICCVDM 2020- **Committee Member** of The 2020 International Conference on Computer Vision and Data Mining (ICCVDM).
- SIGNAL 2020- **Technical Program Committee Member** of The Fifth International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2020).
- ICAIS 2020- **Technical Program Committee Member** of The 6th International Conference on Artificial Intelligence and Security (ICAIS 2020).
- WBDE 2020- **Conference Co-Chair** of 2020 Workshop on Big Data Engineering (WBDE 2020).
- FCST 2020- **Program Committee Member** of the 8th International Conference on Foundations of Computer Science & Technology (FCST 2020).
- CSEE 2020- **Technical Committee Member** of 2020 International Conference on Computer Science, Engineering and Education (CSEE 2020).

- KES 2020- **International Program Committee Member** of The 24th KES International Conference on Knowledge-Based and Intelligent Information & Engineering Systems 2020 (KES 2020).
- ICCCS 2020- **Technical Program Committee Member** of 2020 5th International Conference on Computer and Communication Systems (ICCCS 2020).
- ICMSSP 2020- **Publicity Chair** of 2020 5th International Conference on Multimedia Systems and Signal Processing (ICMSSP 2020).
- CSSE 2020- **Technical Program Committee Member** of The 3rd International Conference on Computer Science and Software Engineering (CSSE 2020).
- ASPAI 2020- **International Program Committee Member** of the Second International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI 2020).
- ITIOT 2020- **Technical Committee Member** of 2020 International Conference on Information Technology and Internet of Things (ITIOT 2020).
- ICBDA 2020- **Publicity Chair** of the 5th International Conference on Big Data Analytics (ICBDA 2020).
- ICISSP 2020- **Program Committee Member** of the International Conference on Information Systems Security and Privacy (ICISSP 2020).
- ICCSCT 2020- **Technical Program Committee Member** of The 4th International Conference on Computer Systems and Communication Technology (ICCSCT 2020).
- SAPSE 2019- **Program Committee Member** of 11th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2019) in conjunction with COMPSAC 2019.
- SICBS 2019- **Program Committee Chair** of The 3rd International Conference on Security with Intelligent Computing and Big-data Services (SICBS 2019).
- ICC 2019- **Technical Program Committee Member** of 2019 IEEE 5th International Conference on Computer and Communications (ICC 2019).
- CloudComp 2019- **Technical Program Committee Member** of The 9th EAI International Conference on Cloud Computing (CloudComp 2019).
- CENet 2019- **Keynote Speaker** of The 9th International Conference on Computer Engineering and Network 2019 (CENet 2019).
- IIHMSP 2019- **Keynote Speaker** of The 15th International Conference on Intelligent Information Hiding and Multimedia Signal Processing 2019 (IIHMSP 2019).

- IWDW 2019- **Technical Program Committee Member** of 18th International Workshop on Digital-Forensics and Watermarking (IWDW 2019).
- ICCNS 2019- **Conference Committee Member** of 2019 the 9th International Conference on Communication and Network Security (ICCNS 2019).
- KES 2019- **International Program Committee Member** of The 23rd KES International Conference on Knowledge-Based and Intelligent Information & Engineering Systems 2019 (KES 2019).
- ICAIS 2019- **Technical Program Committee Member** of The 5th International Conference on Artificial Intelligence and Security (ICAIS 2019).
- ISCIPT 2019- **Technical Program Committee Member** of The 2019 4th International Symposium on Computer and Information Processing Technology (ISCIPT 2019).
- ICETIS 2019- **Committee Member** of The 4th International Conference on Electronic Technology and Information Science (ICETIS 2019).
- SIGNAL 2019- **Technical Program Committee Member** of The Fourth International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2019).
- ICBDA 2019- **Session Chair** of the 4th IEEE International Conference on Big Data Analytics (ICBDA 2019).
- ASPAI 2019- **International Program Committee Member** of the First International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI 2019).
- KESA 2019- **Technical Program Committee Chair** of The International Workshop on Knowledge Extraction and Semantic Annotation (KESA 2019) in conjunction with ALLDATA 2019.
- ICISSP 2019- **Program Committee Member** of the 5th International Conference on Information Systems Security and Privacy (ICISSP 2019).
- SICBS 2018- **General Chair** of the 2nd International Conference on Security with Intelligent Computing and Big-data Services (SICBS 2018).
- IWDW 2018- **Technical Program Committee Member** of 17th International Workshop on Digital-Forensics and Watermarking (IWDW 2018).
- ICCT 2018- **International Technical Committee Member** of 2018 18th IEEE International Conference on Communication Technology (ICCT 2018).
- ITA 2018- **Technical Program Committee Member** of 5th Annual International Conference on Information Technology and Applications (ITA 2018).

- CSAE 2018- **Technical Program Committee Member** of The 2nd International Conference on Computer Science and Application Engineering (CSAE 2018).
- ICCIP 2018- **Technical Committee Member** of 2018 the 4th International Conference on Communication and Information Processing (ICCIP 2018).
- ISCME 2018- **Technology Program Member** of 2018 3rd International Seminar on Computer Technology, Mechanical and Electrical Engineering (ISCME 2018).
- SAPSE 2018- **Program Committee Member** of 10th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2018) in conjunction with COMPSAC 2018.
- 2018 The first international Digital Tools & Uses Congress- **International Scientific Committee Member** of The first international Digital Tools & Uses Congress.
- ICMSSP 2018- **Conference Chair** of 2018 International Conference on Multimedia Systems and Signal Processing (ICMSSP 2018).
- ICBDC 2018- **Conference Chair** of 2018 International Conference on Big Data and Computing (ICBDC 2018) in conjunction with ICMSSP 2018.
- SIGNAL 2018- **Technical Program Committee Member** of The Third International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2018).
- KESA 2018- **Technical Program Committee Chair** of The International Workshop on Knowledge Extraction and Semantic Annotation (KESA 2018) in conjunction with ALLDATA 2018.
- ICISSP 2018- **Program Committee Member** of the International Conference on Information Systems Security and Privacy (ICISSP 2018).
- SICBS'17- **Program Committee Chair** of The 2017 International Conference on Security with Intelligent Computing and Big-data Services (SICBS'17).
- ICCNS 2017- **Technical Committee Member** of 2017 the 7th International Conference on Communication and Network Security (ICCNS 2017).
- ICCTS 2017- **Technical Program Committee Member** of 2017 6th International Conference on Computer Technology and Science (ICCTS 2017).
- ICCCS2017- **Keynote Speaker** of The 3rd International Conference on Cloud Computing and Security (ICCCS 2017).
- ICCT 2017- **International Technical Committee Member** of 2017 17th IEEE International Conference on Communication Technology (ICCT 2017).

- ICEDUIT 2017- **Program Committee Member** of 2017 2nd International Conference on Education and Information Technologies (ICEDUIT 2017).
- IWDW 2017- **Technical Program Committee Member** of 16th International Workshop on Digital-Forensics and Watermarking (IWDW 2017).
- ICWIP 2017- **Conference Committee Member** of 2017 International Conference on Watermarking and Image Processing (ICWIP 2017).
- TMCM 2017- **International Scientific Committee Member** of 2017 2nd International Conference on Test, Measurement and Computational Method (TMCM 2017).
- ICSIP 2017- **Conference Technical Committee Member** of 2017 2nd International Conference on Signal and Image Processing (ICSIP 2017).
- SAPSE 2017- **Program Committee Member** of 9th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2017) in conjunction with COMPSAC 2017.
- ICMSSP 2017- **Conference Chair** of 2017 International Conference on Multimedia Systems and Signal Processing (ICMSSP 2017).
- CST2017- **Technical Program Committee Member** of The 2nd International Conference on Computer Science and Technology (CST 2017).
- SIGNAL 2017- **Technical Program Committee Member** of The First International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2017).
- KESA 2017- **Technical Program Committee Chair** of The International Workshop on Knowledge Extraction and Semantic Annotation (KESA 2017) in conjunction with ALLDATA 2017.
- ICISSP 2017- **Program Committee Member** of the International Conference on Information Systems Security and Privacy (ICISSP 2017).
- IWSBT 2016- **Program Committee Chair** of International Workshop on Secure Biometric Technologies (IWSBT 2016).
- CSCT 2016- **International Technical Committee Member** of Computer Science and Communication Technology (CSCT2016).
- 2INTECH 2016- **Advisory Committee Member** of The 2'nd International Conference on Intelligent Information Technology (2INTECH 2016).
- GDC 2016- **Program Committee Member** of The 2016 Conference on Grid and Distributed Computing (GDC 2016).

- IWDW 2016- **Session Chair** of 15th International Workshop on Digital-Forensics and Watermarking (IWDW 2016).
- IWDW 2016- **Program Committee Member** of 15th International Workshop on Digital-Forensics and Watermarking (IWDW 2016).
- ICMSSP 2016- **Keynote Speaker** of 2016 International Conference on Multimedia Systems and Signal Processing (ICMSSP 2016).
- TSA 2016- **Program Committee Member** of Third International Conference on Trustworthy Systems and Their Applications (TSA 2016)
- Workshop on Cryptography and Information Security of ICS 2016- **Program Committee Member** of Workshop on Cryptography and Information Security 2016 in conjunction with ICS 2016.
- ICNISC 2016- **Keynote Speaker** of 2nd Annual International Conference on Network and Information Systems for Computers (ICNISC 2016)
- ICCCS 2016- **Technical Program Committee Member** of The 2nd International Conference on Cloud Computing and Security (ICCCS 2016).
- SAPSE 2016- **Program Committee Member** of 8th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2016) in conjunction with COMPSAC 2016.
- SIGNAL 2016- **Technical Program Committee Member** of The First International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2016).
- JCKE 2016 1st- **Technical Committee Member** of JCKE 2016 1st (2016 1st Journal Conference on Knowledge Engineering).
- 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).
- GDC 2015- **Program Committee Member** of The 2015 Conference on Grid and Distributed Computing (GDC 2015).
- SITIS 2015- **Program Committee Member** of The 11th International Conference on Signal Image Technology & Internet Based Systems (SITIS 2015).
- 3PGCIC 2015- **Program Committee Member** of 10th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC 2015).

- TSA 2015- **Program Committee Member** of Second International Conference on Trustworthy Systems and Their Applications (TSA 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).
- GDC 2014- **Program Committee Member** of The 2014 Conference on Grid and Distributed Computing (GDC 2014).
- CSEIT 2014- **Program Committee Member** of International Conference on Computer Science, Engineering and Information Technology (CSEIT 2014).
- 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 2014).
- 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).
- GDC 2013- **Program Committee Member** of The 2013 Conference on Grid and Distributed Computing (GDC 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 (GDC 2012).
- 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 (GDC 2011).
- 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 2011 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

- CISC 2017- **Program Committee Member** of 2017 Cryptology and Information Security Conference

- TANET 2016 - **Program Committee Member** of Taiwan Academic Network Conference 2016.
- 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 Ministry of Science and Technology (MOST), and Other Institutes**

- Enhancement of Information Carrying and Decoding of Visual Cryptography with Error

- Correction for Two-in-One Secret Image Sharing (2021, 2022, Grant No.: MOST 110-2221-E-259-005-MY2)
- Probabilistic Color Visual Cryptography for Black and White Secret Image (2020, Grant No.: MOST 109-2221-E-259-010)
 - Applying Region Convolution Neural Network on Polynomial Based Secret Image Sharing (2019, 2020, Grant No.: MOST 108-2221-E-259-009-MY2)
 - Developing Visual Cryptography on Smartphones for Authentication- Technology and Application (2018, Grant No.: MOST 107-2221-E-259-007-)
 - A Study of Applications by Combining Data Hiding and Visual Cryptography (2016, 2017, Grant No.: MOST 105-2221-E-259-015-MY2)
 - The Theory and Application Study on New Boolean-Operation Based Visual Cryptography (2015, Grant No.: MOST 104-2221-E-259-013-)
 - 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-)
- A study of Quantum Key Distribution Protocol on Passive Optical Network (2003, Grant No.: NSC 92-2218-E-259-005-)
- 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-)
- A Study of Visual Secret Sharing Schemes with Non-expandable Share Size and error correcting and detecting capabilities (2001, Grant No.: NSC 90-2213-E-259-005-)
- 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-)



■ Serve in Reviewing Papers of Journals

- IEEE Trans. on Computer
- IEEE Trans. on Information Theory
- IEEE Trans. on Image Processing
- IEEE Tran. on Circuits and Systems for Video Technology
- IEEE Trans. on Information Forensics and Security

- IEEE Trans. on Services Computing
- IEEE Trans. on Emerging Topics in Computational Intelligence
- IEEE Multimedia
- IEEE Access
- IEEE Signal Processing Letters
- IEEE Communication Letter
- IET Image Processing
- Information Sciences
- Pattern Recognition
- Pattern Recognition Letter
- Integration, the VLSI Journal
- Computer Communications
- Designs Codes & Cryptography
- The Computer Journal
- Computers & Graphics
- Computer & Security
- Discrete Applied Mathematics
- Optics Communications
- Optics & Laser Technology
- Journal of Systems and Software
- International Journal of Pattern Recognition and Artificial Intelligence
- International Journal of Business and Systems Research
- International Journal of Information Security
- Journal of the Chinese Institute of Engineers
- Journal of Selected Topics in Quantum Electronics
- ETRI Journal
- Wireless Personal Communication
- Wireless Communications and Mobile Computing
- Security and Communication Networks

- Journal of Visual Communication and Image Representation
- JISE
- Displays
- Journal of Organizational Computing and Electronic Commerce
- Journal of Computing and Information Technology
- Knowledge and Information Systems
- International Journal of Knowledge Engineering
- KSII Transactions on Internet and Information Systems
- Journal of Information Security and Applications
- Optics and Lasers in Engineering
- Mathematical Biosciences and Engineering
- Symmetry