

Resume of James C.N. Yang

(Traditional Chinese:楊慶隆 Simplified Chinese:杨庆隆)

- National Chiao Tung University Department of Telecommunication Engineering, B.S and M.S.
- National Cheng Kung University Department of Electrical Engineering, Ph.D.
- Chunghwa Telecom Co., Ltd Telecommunication Lab., Researcher.
- Chunghwa Telecom Co., Ltd Training Institute Kaohsiung Center, Instructor.
- National Dong Hwa University Computer Center, Chief of Network Division.
- University of Missouri Kansas City (UMKC, USA), Visiting Professor.
- University of Milan (UNIMI, Italy), Visiting Professor.
- University of Tokyo (UTokyo, Japan), Project Professor.



At Present

- National Dong Hwa University, CSIE Department, Professor.
- **Fellow of IET (IEE)**
- **IEEE Senior Member**

Name : Ching-Nung Yang
Department of Computer Science and Information Engineering,
National Dong Hwa University, #1, Sec. 2,
Da Hsueh Rd., Hualien, Taiwan.
Phone: +886-3-8905025,
Fax: +886-3-8900168,
E-mail: cnyang@gms.ndhu.edu.tw.
E-mail: cnyang@ieee.org
Homepage: <http://cis.csie.ndhu.edu.tw>



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■ Biography

Professor Ching-Nung Yang obtained his Ph. D. degree in Electrical Engineering from National Cheng Kung University. His B.S. and M.S. degrees, both were awarded in Department of Telecommunication Engineering from National Chiao Tung University. Dr. Yang served in

National Dong Hwa University since 1999. His current title is Professor in Department of Computer Science and Information Engineering. He had been Visiting Professor to University of Missouri Kansas City, University of Milan, and University of Tokyo. He is currently a Fellow of IET (IEE) and an IEEE senior member. Professor Yang has done extensive researches on visual cryptography and secret image sharing, and is the chief scientist in both areas. In fact, a very important innovation of visual cryptography, the probabilistic visual cryptography, was firstly proposed by Professor Yang. His areas of interest include error correcting code, multimedia security, cryptography, and information security. He has authored two books and has published over 200 (including more than 100 SCI-indexed papers) professional research 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. Also, he was invited as chairs, keynote speakers, and members of program committees for various international conferences. He is the recipient of the 2000, 2006, 2010, 2012, and 2014 Fine Advising Award in the Thesis of Master/PhD of Science awarded by Institute of Information & Computer Machinery.



■ Research

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

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



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

(A) Journal Papers: (Use 2017 Impact Factor from Journal Citation Reports)

01. **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

(doi: doi.org/10.1007/s11554-018-0829-1), published online Oct., 2018. [SCI 5-year IF: 1.720].

02. Y.X. Liu, **C.Y. 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. 776-777, Aug., 2018. [SCI 5-year IF: 2.028].
03. **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: 2.028].
04. 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: 2.265].
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12. 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: 4.199].

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(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.)

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81. **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.
82. **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.

83. **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.
84. **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.
85. **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.
86. **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.
87. **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.
88. **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.
89. **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.
90. **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.
91. **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.
92. Y.F. Lee, B.F. Liou, **C.N. Yang**, H.C. Chi, "Automatic IP Management," Proc. TANET 2005, Taichung, Oct. 2005.
93. **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.
94. **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.
95. **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.

96. **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.
97. **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.
98. 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.
99. **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.
100. **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.
101. 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.
102. **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.
103. **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-** Y.Q. Shi, H.J. Kim, H.J., F. Pérez-González, and **C.N. Yang**, Digital-Forensics and Watermarking (Springer, ISBN: 978-3-319-19320-5), 2015.
02. **Book-** **C.N. Yang**, C.C. Lin, and C.C. Chang, Steganography and Watermarking, Nova Science Publishers, Inc., ISBN: 978-1-62618-317-9, Number of pages: 412, Publication Date: 2013 - 3rd Quarter.
03. **Book Chapter-** **C.N. Yang**, W.C. Kuo, and S. H. Chang, Chapter 5: A High Steganographic Scheme with Pixel-Value Differencing, in the book Steganography and Watermarking, 2013.

04. **Book Editor-** J.S. Pan, **C.N. Yang**, and C.C. Lin, Advances in Intelligent Systems and Applications -Volume 2 (Springer. ISBN: 978-3-642-35472-4), Dec., 2012.
05. **Book Chapter-** **C.N. Yang**, J.Y. He, and Y.C. Kun, Chapter: RFID Tag Anti-Collision Protocols, in the book Advanced RFID Systems, Security, and Applications (IGI Global, ISBN 13: 9781466620803), 2012.
06. **Book-** S. Cimato and **C.N. Yang**, Visual Cryptography and Secret Image Sharing, Publisher: CRC Press/Taylor & Francis, ISBN: 9781439837214, Number of Pages: 501, Publication Date: August 10, 2011.
07. **Book Chapter-** **C.N. Yang**, C.B. Ciou, and T.S. Chen, Chapter 17: Two-Decoding-Option Image Sharing Method, in the book Visual Cryptography and Secret Image Sharing, Aug., 2011.
08. **Book Chapters-** R. Lukac, K.N. Plataniotis, and **C.N. Yang**, Image Secret Sharing. In Encyclopedia of Multimedia, (ed.) B. Furth, Springer-Verlag, pp. 328-335, January 2006. Including short articles: Compression in Image Secret Sharing (pp. 86-87), Halftoning-Based Visual Secret Sharing (pp. 363-364), Image Watermarking Using Visual Cryptography (pp. 337-338), Private-Key Cryptosystem (pp. 712-714), Threshold Schemes with Minimum Pixel Expansion (pp. 849-850), Visual Cryptography (pp. 950-951). ISBN 0-387-24395-X.



■ Academic Awards

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

Tree on Resolving RFID Tag Collision”.

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



■ Serve in International Journals and Conferences

■ Journals

- Guest Editor- Special Issue on "Deep Learning for Real-time Information Hiding and Forensics" for the Journal of Real-Time Image Processing (JRTIP).
- Guest Editor- Special Issue on "Recent Advances in Video Coding and Security" for IEEE Access.
- Guest Editor- Special Issue on "Machine Learning for Wireless Multimedia Data Security" for Security and Communication Networks.
- Guest Editor- Special Issue on "Symmetry in Computing Theory and Application" for Symmetry.
- Guest Editor- Special Issue on "Advanced Technology for Smart Home Automation and Entertainment" for Personal and Ubiquitous Computing (PAUC, springer journal).

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

■ Conferences

- ICISSP 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 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 9th 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).

- TCMC 2017- **International Scientific Committee Member** of 2017 2nd International Conference on Test, Measurement and Computational Method (TCMC 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 8th 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).
- ISIC'17- **Program Committee Chair** of The 2017 International Conference on Information Security and Intelligent Computing (ISIC'17).
- 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.
- Inscript 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**

- 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 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