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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 160 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 2021 Impact Factor from Journal Citation Reports)

01. **C.N. Yang**, X. Wu, and M.J. Chung, "Enhancement of Information Carrying and Decoding for Visual Cryptography with Error Correction," *ACM Transactions on Multimedia Computing, Communications, and Applications* (doi: 10.1145/3612927), published online, Aug., 2023. [**SCI 5-year IF: 4.5**].
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(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**, C.Y. Tseng, and M.C. Lu, "Enhanced Reconciliation of Quantum Key Distribution," accepted and to be published at 2023 8th Optoelectronics Global Conference (OGC 2023), Shenzhen, China, Sep., 2023.
02. **C.N. Yang**, H.Y. Lin, and C.J. Wang, "Bidirectional Hash Chain Based Key Pre-distribution for Wireless Sensor Networks," 2023 8th International Conference on Automation, Control and Robotics Engineering (CACRE 2023), pp. 68-72, ISBN 979-8-3503-0277-6, Hong Kong, China, July, 2023.
03. **C.N. Yang**, H.Y. Lin, H.C. Hsueh, and K.J. Fan, "Using Direct Links in Wireless Sensor Networks to Reduce Energy Consumption," Proc. of 2023 The 6th International Conference on Artificial Intelligence and Big Data (ICAIBD 2023), pp. 603-608, ISBN 978-1-6654-9124-2, Chengdu, China, May, 2023.
04. **C.N. Yang**, H.C. Kuo, and H.H. Cheng, "Ensuring FHIR Authentication and Data Integrity by Smart Contract and Blockchain Enabled NFT," accepted and to be published at 2023 7th International Conference on Medical and Health Informatics (ICMHI 2023), Kyoto, Japan, May, 2023.
05. **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.
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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".



■ Serve in International Journals and Conferences

■ Journals

- Guest Editor- Special Issue "New trends in Security, Trust, and Privacy in Future Cyber-Systems" for Frontiers in Computer Science.
- Guest Editor- Special Issue "Information Theory and Its Applications in Multimedia Security and Processing" for Entropy.
- 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

- BIOTC 2024- **Technical Program Committee Member** of The 6th Blockchain and Internet of Things Conference (BIOTC 2024).
- IoTAI 2024- **Technical Program Committee Member** of 2024 the first International Conference on IoT-AI (IoTAI 2024) in conjunction with DigiTech 2024 Congress.

- ISIA 2023- **Technical Program Committee Member** of 2023 International Conference on Intelligent Sensing and Industrial Automation (ISIA 2023).
- BIOTC 2023- **Technical Program Committee Member** of The 5th Blockchain and Internet of Things Conference (BIOTC 2023).
- COMPSAC 2023- **Program Committee Member** of COMPSAC 2023 Symposium on Security, Privacy & Trust in Computing (SEPT).
- SAPSE 2023- **Program Committee Member** of 15th IEEE International Workshop on Security Aspects of Process and Services Engineering (SAPSE 2023) in conjunction with (COMPSAC 2023).
- CFDSP 2023- **Technical Committee Member** of 2023 International Conference on Frontiers of Digital Signal Processing (CFDSP 2023).
- SIGNAL 2023- **Technical Program Committee Member** of The Eighth International Conference on Advances in Signal, Image and Video Processing (SIGNAL 2023).
- 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).
- SIGNAL 2022- **Technical Program Committee Member** of The Seventh International Conference on Advances in Signal, Image and Video Processing (SIGNAL 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 Sixth 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 (IoT E 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.
- ICC 2020- **Technical Program Committee Member** of 2020 IEEE 6th International Conference on Computer and Communications (ICC 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 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 National Science and Technology Council (NSTC) and Other Institutes; NSTC is previously known as Ministry of Science and Technology (MOST)**

- Error Correction Code Based Secret Image Sharing Scheme with Assessing and Overcoming Participant Dishonesty (2023, 2024, Grant No.: NSTC 112-2221-E-259-007-MY2)
- 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