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Rong-Jian Chen, Ph.D., Associate Professor

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| Experience | 2006-2010 | Review Member of SBIR, Ministry of Economic Affairs, ROC |
| | 2003~ | <u>Associate Professor</u> , Department of Electronic Engineering, National United University |
| | 1995-2002 | <u>Associate Professor</u> , Department of Electronic Engineering, National Lien-Ho Institute of Technology |
| | 1999-2002 | <u>Chair</u> of Department of Electronic Engineering, National Lien-Ho Institute of Technology |
| | 1991-1995 | <u>Lecturer</u> , Department of Electronic Engineering, Jin-Win Institute of Technology and Commerce |
| Education | <u>Ph.D.</u> (1992-1995) | Department of Electronic Engineering, National Taiwan University of Science and Technology, Taiwan, ROC <i>Thesis: Video coding and still image coding using adaptive techniques, mathematical morphology, subband systems and fractal theory</i> |
| | <u>M.S.</u> (1989-1991) | Department of Electronic Engineering, National Taiwan University of Science and Technology, Taiwan, ROC |
| | <u>B.S.</u> (1985-1987) | Department of Electronic Engineering, National Taiwan University of Science and Technology, Taiwan, ROC |
| Publications | Journal Papers | |
| | | 1. <u>Rong-Jian Chen</u> and Bin-Chang Chieu, "A fully adaptive DCT based color image sequence coder," <i>Signal Processing: Image Communication</i> , 6(1994), pp.289-301. (SCI) |
| | | 2. <u>Rong-Jian Chen</u> and Bin-Chang Chieu, "Three-dimensional morphological pyramid and its application to color image sequence coding," <i>Signal Processing</i> , 44(1995), pp.163-180. (SCI) |
| | | 3. Chao-Sen Wang, <u>Rong-Jian Chen</u> , Jyh-Liang Jou and Bin-Chang Chieu, "The application of OCOR neural network and its |

- generalization algorithm for human face recognition," *Neural, Parallel and Scientific Computations*, 3(1995), pp.151-162.
4. Rong-Jian Chen and Bin-Chang Chieu, "Multiresolutional image representation and coding using morphological pyramids," *Journal of Information Science and Engineering*, 12(1996), pp.415-428. (SCI)
 5. Rong-Jian Chen and Bin-Chang Chieu, "Adaptive fractal image coding in subband domain," *Journal of the Chinese Institute of Engineers*, vol.19, no.3, pp.417-427, May 1996. (SCI)
 6. Rong-Jian Chen and Jui-Lin Lai, "Novel approach and system for automatic PCB visual inspection using hybrid flaw detection," *Journal of National Lien-Ho Institute of Technology*, no. 17, pp. 93-103, 2000. (Publication in Chinese)
 7. Rong-Jian Chen and Jui-Lin Lai, "Orthogonal CAs and their applications to image compression and encryption," *Journal of National Lien-Ho Institute of Technology*, no. 21, pp. 185-203, Nov. 2002. (Publication in Chinese)
 8. Jui-Lin Lai and Rong-Jian Chen, "Design of Cellular Neural Networks and Their VLSI Implementation," *Journal of National Lien-Ho Institute of Technology*, no. 23, pp. 183-198, July 2003. (Publication in Chinese)
 9. Cheng-Fang Tai, Rong-Jian Chen, and Jai-Lin Lai, "How Technological and Vocational Education Can Proper in the 21st Century," *IEEE Circuits and Devices, the Electronics and Photonics Magazine*, vol. 19, no. 2, pp. 15-16, March 2003. (SCI)
 10. Rong-Jian Chen and Jui-Lin Lai, "Image Security System Using Recursive Cellular Automata Substitution," *Pattern Recognition*, vol. 40, no. 5, pp. 1621-1631, May 2007. (SCI, IF:3.279) **【NSC-93-2215-E-239-001】**
 11. Wei-Hung Lin, Shi-Jinn Horng, Tzong-Wann Kao, Rong-Jian Chen, Yuan-Hsin Chen, Cheng-Ling Lee and Takao Terano, "Image Copyright Protection with Forward Error Correction," *Expert Systems With Applications*, vol. 36, no. 9, pp. 11888-11894, Nov. 2009. (SCI, IF: 2.596) **【NSC 96-2918-I-011-002, 96-2221-E-011-022-, 95-2221-E-011-032-MY3】**
 12. Rong-Jian Chen, Jui-Lin Lai, and Shi-Jinn Horng, "Novel Stream Cipher Using SCAN and Variable Ordered Recursive CA Substitutions and Its DSP+FPGA Implementation" *Journal of Networks*, vol. 5, no. 1, pp. 75-87, Feb. 2010. (EI) **【NSC-93-2215-E-239-001, NSC-97-2221-E-239-036-MY3】**
 13. Yuan-Hsin Chen, Shi-Jinn Horng, Ray-Shine Run, Jui-Lin Lai, Rong-Jian Chen, Wei-Chih Chen, Yi Pan, and Terano Takao, "A Novel Anti-collision Algorithm in RFID Systems for Identifying Passive Tags," *IEEE Transactions on Industrial Informatics*, vol. 6, no.1, Feb. 2010. (SCI) **【NSC 96-2918-I-011-002】**
 14. Mingxing He, Shi-Jinn Horng, Pingzhi Fan, Ray-Shine Run, Rong-Jian Chen, Jui-Lin Lai, Muhammad KhurramKhan, and Kevin Octavius Sentosa, "Performance evaluation of score level fusion in multimodal biometric systems," *Pattern Recognition*, vol. 43, no. 5, pp. 1789-1800, May 2010. (SCI) **【NSC-98-2219-E-011-002, NSC-98-2221-E-011-133-MY3, NSC-98-2923-E-011-004-MY3, and NSC-99-2916-I-011-002-A1】**
 15. I-Hong Kuo, Shi-Jinn Horng, Yuan-Hsin Chen, Ray-Shine Run, Tzong-Wann Kao, Rong-Jian Chen, Jui-Lin Lai and Tsung-Lieh

- Lin, "Forecasting TAIEX based on fuzzy time series and particle swarm optimization," *Expert Systems With Applications*, vol. 37, no. 2, pp. 1494-1502, March 2010. (SCI) 【 NSC 96-2918-I-011-002, NSC 96-2221-E-011-022, NSC 95-2221-E-011-032-MY3】
16. Tsung-Lieh Lin, Shi-Jinn Horng, Tzong-Wann Kao Yuan-Hsin Chen, Ray-Shine Run, Rong-Jian Chen, Jui-Lin Lai and I-Hong Kuo, "An efficient job-shop scheduling algorithm based on particle swarm optimization," *Expert Systems With Applications*, vol. 37, no. 3, pp. 2629-2636, 15 March 2010. (SCI) 【 NSC 96-2918-I-011-002, NSC 97-2221-E-239-022, NSC 95-2221-E-011-032-MY3】
 17. Ling-Yuan Hsu, Shi-Jinn Horng, Tzong-Wann Kao, Yuan-Hsin Chen, Ray-Shine Run, Rong-Jian Chen, Jui-Lin Lai and I-Hong Kuo, "Temperature prediction and TAIEX forecasting based on fuzzy relationships and MTPSO techniques," *Expert Systems With Applications*, vol. 37, no. 4, pp. 2756-2770, April 2010. (SCI) 【NSC 97-2221-E-239-022, NSC 98-2221-E-011-133-MY3, NSC 98-2923-E-011-004-MY3】
 18. Rong-Jian Chen and Shi-Jinn Horng, "Novel SCAN-CA-based Image Security System Using SCAN and 2-D von Neumann Cellular Automata," *Signal Processing: Image Communication*, vol. 25, no. 6, pp. 413-426, July 2010. (SCI) 【NSC-93-2215-E-239-001, NSC-97-2221-E-239-036-MY3】
 19. Tsung-Lieh Lin, Shi-Jinn Horng, Kai-Hui Lee, Pei-Ling Chiu, Tzong-Wann Kao, Yuan-Hsin Chen, Ray-Shine Run, Jui-Lin Lai and Rong-Jian Chen, "A Novel Visual Secret Sharing Scheme for Multiple Secrets without Pixel Expansion," *Expert Systems With Applications*, vol. 37, no. 12, pp. 7858-7869, Dec. 2010. (SCI, IF: 2.596)
 20. Shih-Ying Lin, Shi-Jinn Horng, Tzong-Wann Kao, Deng-Kui Huang, Chin-Shyurng Fahn, Jui-Lin Lai, Rong-Jian Chen, and I-Hong Kuo, "An efficient bi-objective personnel assignment algorithm based on a hybrid particle swarm optimization model," *Expert Systems With Applications*, vol. 37, no. 12, pp. 7825-7830, Dec. 2010. (SCI, IF: 2.596)
 21. Tsung-Lieh Lin, Shi-Jinn Horng, Kai-Hui Lee, Pei-Ling Chiu, Tzong-Wann Kao, Ray-Shine Run, Jui-Lin Lai and Rong-Jian Chen, "A Visual Sharing Scheme for Multiple Secrets by Camouflaging Process," *International Journal of Innovative Computing, Information and Control (IJICIC)*, vol. 6, no. 12, pp. 5749-5769, Dec. 2010.
 22. Rong-Jian Chen, Jun-Jian Lin, Su-Min Hung, Jui-Lin Lai, and Shi-Jinn Horng, "Architecture Design of High Efficient and Non-memory AES Crypto Core for WPAN," *Concurrency and Computation: Practice and Experience*, vol. 23, no. 12, pp. 1332-1347, August 2011. (SCI, IF: 1.791) 【NSC-97-2221-E-239-036-MY3】
 23. Shi-Jinn Horng, Ming-Yang Su, Yuan-Hsin Chen, Tzong-Wann Kao, Rong-Jian Chen, Jui-Lin Lai, Citra Dwi Perkasa, "A novel intrusion detection system based on hierarchical clustering and support vector machines," *Expert Systems With Applications*, vol. 38, no. 1, pp. 306-313, Jan. 2011. (SCI, IF: 2.596)
 24. Ling-Yuan Hsu, Shi-Jinn Horng, Pingzhi Fan, Muhammad Khurram Khan, Yuh-Rau Wang, Ray-Shine Run, Jui-Lin Lai,

- Rong-Jian Chen, "MTPSO algorithm for solving planar graph coloring problem," *Expert Systems With Applications*, vol. 38, no. 5, pp. 5525-5531, 2011. (SCI, IF: 2.596)
25. Mingxing He, Shi-Jinn Horng, Pingzhi Fan, Muhammad Khurram Khan, Ray-Shine Run, Jui-Lin Lai, Rong-Jian Chen, "A fast RFID tag identification algorithm based on counter and stack," *Expert Systems With Applications*, vol. 38, no. 6, pp. 6829-6838, 2011.
 26. Ling-Yuan Hsu, Shi-Jinn Horng, Mingxing He, Pingzhi Fan, Tzong-Wann Kao, Muhammad Khurram Khan, Ray-Shine Run, Jui-Lin Lai, Rong-Jian Chen, "Mutual funds trading strategy based on particle swarm optimization," *Expert Systems With Applications*, vol. 38, no. 6, pp. 7582-7602, 2011. (SCI, IF: 2.596)
 27. Mingxing He, Shi-Jinn Horng, Pingzhi Fan, Muhammad Khurram Khan, Ray-Shine Run, Jui-Lin Lai, Rong-Jian Chen, Adi Sutanto, "An efficient phishing webpage detector," *Expert Systems With Applications*, vol. 38, no.10, pp.12018-12027, 2011. (SCI, IF: 2.596)
 28. Ray-Shine Run, Shi-Jinn Horng, Jui-Lin Lai, Tzong-Wann Kao, Rong-Jian Chen, "An improved SVD-based watermarking technique for copyright protection," *Expert Systems With Applications*, vol. 39, no.1, pp. 673-689, 2012. (SCI, IF: 2.596)
 29. Mahmoud E. Farfoura, Shi-Jinn Horng, Jui-Lin Lai, Ray-Shine Run, Rong-Jian Chen, Muhammad Khurram Khan, "A blind reversible method for watermarking relational databases based on a time-stamping protocol," *Expert Systems With Applications*, vol. 39, no.3, pp. 3185-3196, 2012. (SCI, IF: 2.596)

Conference Papers

1. Rong-Jian Chen and Bin-Chang Chieu, "Adaptive color image sequence coding" in Proceedings of National computer Symposium 1991, Republic of China, vol.2, pp.386-391. (Publication in Chinese)
2. Bin-Chang Chieu, Rong-Jian Chen, and Charng-Hwa Lin, "3-D subbands partition using progressive mathematic morphology filters," in Proceedings of National computer Symposium 1991, republic of China, vol.2, pp.398-401. (Publication in Chinese)
3. Jong-Tzy Wang, Rong-Jian Chen and Bin-Chang Chieu, "DCT based multiresolutional image sequence coding," in proceedings of 1992 Conference on Information Sciences and Systems. The Princeton University.
4. Rong-Jian Chen and Bin-Chang Chieu, "A 3_dimensional morphological image sequence coding," in Signal Processing VI: Theories and Applications, J. Vandewalle et al. (eds.), 1992 Elsevier, Amsterdam, pp.1303-1306. (EI)
5. Rong-Jian Chen and Bin-Chang Chieu, "Adaptive DCT color image sequence coding," in Signal Processing VI: Theories and Applications, J. Vandewalle et al. (eds.), 1992 Elsevier, Amsterdam, pp.1349-1352. (EI)
6. Rong-Jian Chen and Bin-Chang Chieu, "DCT color image sequence coding," in Proceedings of 11th IAPR International Conference on Pattern Recognition, vol. III, pp.553-556. The Hague, The Netherlands, August 30-September 3, 1992. (EI)
7. Rong-Jian Chen and Bin-Chang Chieu, "A 3_dimensional morphological multiresolutional image sequence coding," in Proceedings of 2nd Singapore International Conference on Image

- Processing (ICIP'92), vol.2, pp.318-322, Singapore, September 1992. (EI)
8. Rong-Jian Chen and Jui-Lin Lai, "Design and implementation of the card of VMI MPEG-2" in Proceedings of the 13th National Conference on Technology and Vocation, Industrial III, Electronic, pp.47-56, Taipei, Taiwan, May 5-6, 1998. (Publication in Chinese)
 9. Rong-Jian Chen, "Algorithms and systems for image coding and encryption based on cellular automata transform," in Proceeding of 2000 Workshop on Consumer Electronics, pp. 327-333, Taipei, Taiwan, Oct. 2000. (Publication in Chinese)
 10. Wen-Cheng Yen, Rong-Jian Chen, and Jui-Lin Lai, "Design of MIN/MAX cellular neural networks (MMCNNs) in CMOS technology," in Proceedings of the 7th IEEE International Workshop on Cellular Neural Networks and Their Applications, pp. 339-346, Frankfurt, Germany, July 22-24, 2002. (EI)
 11. Rong-Jian Chen and Jui-Lin Lai, "VLSI implementation of the universal one-dimensional CAT/ICAT," in Proceedings of the 2002 IEEE Asia-Pacific Conference on Circuit and Systems (APCCAS'02), vol. 2, pp. 270-282, Bali, Indonesia, Oct. 28-31, 2002. (EI)
 12. Rong-Jian Chen, Jui-Lin Lai, and Yi-Te Lai, "Design of the Universal 2-D Cellular Automata Bases Generator and Its VLSI Implementation" in the Proceedings of the 7th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2003), vol. X, pp. 165-168, Orlando, Florida, USA, July 27-30, 2003.
 13. Rong-Jian Chen, Jui-Lin Lai, Chen-Sheng Yang, Wan-Chao Fan, Wei-Jen Chen, Chien-Chang Hung and Lin-Yin Hsu, "The Architecture of the Re-configurable 2-D Cellular Automata Bases Generator" in the Proceeding of the 14th VLSI Design/CAD Symposium (VLSI Design/CAD 2003), pp. 137-140, Hualien, Taiwan, Aug. 12-15, 2003. 【NSC-92-2215-E-239-003】
 14. Rong-Jian Chen and Jui-Lin Lai, "Image encrypted system using SCAN patterns and 2-D cellular automata," in Proceedings of the 2004 IEEE Asia-Pacific Conference on Circuit and Systems (APCCAS'04), pp. 1121-1124, Tainan, Taiwan, Dec. 6-9, 2004. (EI) 【NSC-92-2215-E-239-003】
 15. Rong-Jian Chen and Jui-Lin Lai, "VLSI implementation of the universal 2-D CAT/ICAT system," in the Proceeding of IEEE ICECS 2004, pp. 187-190, Tel-Aviv, Israel, Dec. 13-15, 2004. (EI) 【NSC-92-2215-E-239-003】
 16. Rong-Jian Chen, Wen-Kai Lu, and Jui-Lin Lai, "Image encryption using progressive cellular automata substitution and SCAN," in Proceedings of IEEE 2005 ISCAS, pp. 1690-1693, Kobe, Japan, May 23-26, 2005. (EI) 【NSC-92-2215-E-239-003】
 17. Rong-Jian Chen, Yi-Te Lai, and Jui-Lin Lai, "Architecture design of the re-configurable 2-D von Neumann cellular automata for image encryption application," in Proceedings of IEEE 2005 ISCAS, pp. 3059-3062, Kobe, Japan, May 23-26, 2005. (EI) 【NSC-92-2215-E-239-003】
 18. Rong-Jian Chen and Jui-Lin Lai, "Data encryption using non-uniform 2-D von Neumann cellular automata," in the Proceeding of IEEE CNNA 2005, pp. 77-80, Shin-Chu, Taiwan, May 28-30, 2005. (EI) 【NSC-93-2215-E-239-001】
 19. Rong-Jian Chen, Yi-Te Lai, and Jui-Lin Lai, "Architecture Design and VLSI Hardware Implementation of Image

- Encryption/Decryption System Using Re-configurable 2-D Von Neumann Cellular Automata,” in Proceedings of IEEE ISCAS 2006, pp. 153-156, Kos Island, Greece, May 21-24, 2006. (EI) 【NSC-93-2215-E-239-001】
20. Rong-Jian Chen, Yuan-Hsin Chen, Chao-Shen Chen, and Jui-Lin Lai “Image Encryption Decryption System Using 2-D Cellular Automata,” in Proceedings of 2006 IEEE International Symposium on Consumer Electronics, ISCE 2006, pp. 651-656, St. Petersburg, Russia, June 28-July 1, 2006. (EI) 【NSC-93-2215-E-239-001】
 21. Cheng-Fang Tai, Jui-Lin Lai, and Rong-Jian Chen “Using the Bulk-Driven Technology Operate in Subthreshold Region to Design a Low Voltage and Low Current Operational Amplifier,” in Proceedings of 2006 IEEE International Symposium on Consumer Electronics, ISCE 2006, pp. 562-566, St. Petersburg, Russia, June 28-July 1, 2006. (EI)
 22. Chao-Shen Chen and Rong-Jian Chen, “Image Encryption and Decryption Using SCAN Methodology,” in Proceedings of The Tenth International Conference on parallel and Distributed Computing Applications and Technology, pp. 61-66, Taipei, Taiwan, Dec. 4-7, 2006. (EI) 【NSC-93-2215-E-239-001】
 23. Rong-Jian Chen, Wen-Kai Lu, and Jui-Lin Lai, “Architecture Design and VLSI Implementation of the Re-configurable 2-D CAT/ICAT Chip for the Applications of Image Compression” in Proceedings of 2007 IEEE International Symposium on Consumer Electronics, ISCE 2007, paper no. 1569028261, Dallas, Texas USA, June 20-23, 2007. (EI) 【NSC-93-2215-E-239-001】
 24. Rong-Jian Chen, Cheng-Fang Tai, and Jui-Lin Lai, “Novel CAT Wavelets-based Image Coding System” in Proceedings of 2007 IEEE International Symposium on Consumer Electronics, ISCE 2007, paper no. 1569027835, Dallas, Texas USA, June 20-23, 2007. (EI) 【NSC-93-2215-E-239-001】
 25. Jui-Lin Lai, Rong-Jian Chen, and Cheng-Fang Tai, “Architectural Design of Multiplicative type-II Fuzzy Cellular Neural Network in CMOS Technology” in Proceedings of 2007 IEEE International Symposium on Consumer Electronics, ISCE 2007, paper no. 1569028523, Dallas, Texas USA, June 20-23, 2007. (EI) 【NSC-93-2215-E-239-001】
 26. Jui-Lin Lai, Yuan-Hung Lo, Yan-Ting Chen, and Rong-Jian Chen, “Design a Multiplicative type-II Fuzzy Cellular Neural Network with CMOS Image Sensor” in Proceeding of the 18th VLSI Design/CAD Symposium (VLSI Design/CAD 20037), paper no. 00280, Hualien, Taiwan, Aug. 7-10, 2007. 【NSC-95-2221-E-239-044】
 27. Rong-Jian Chen, Shu-Ling Huang, Chang-Ming Wu, Hsiao-Tai Liou, Chia-Chi Lin, and Yu-Cheng Peng, “Development of the Urea Biosensors” BME CONFERENCE 2007. (Publication in Chinese) 【NSC 95-2221-E-239-046】
 28. Jui-Lin Lai, Hong-Si Chang, Ting-You Lin, Cheng-Fang Tai, and Rong-Jian Chen, “Electrochemical Enzyme-electrode Biosensor for Glucose Detection,” in Proc. 2008 IEEE International Conference on Communications, Circuits and Systems, ICCAS 2008, Xiamen, China, May 25-27, 2008. (EI) 【NSC-96-2221-E-239-030】
 29. Jui-Lin Lai, Zhen-Xuan Guan, Yan-Ting Chen, Cheng-Fang Tai, and Rong-Jian Chen, “Implementation of Fuzzy Cellular Neural

- Network with Image Sensor in CMOS Technology,” in Proc. 2008 IEEE International Conference on Communications, Circuits and Systems, ICCAS 2008, Xiamen, China, May 25-27, 2008. (EI)
30. Rong-Jian Chen and Jui-Lin Lai, “Novel Stream Cipher Using 2-D Hybrid CA and Variable Ordered Recursive CA Substitutions,” in Proceedings of IFIP International Conference on Network and Parallel Computing Workshop, NPC2008, pp. 74-81, Shanghai, China, 18-21 October, 2008. (EI) 【NSC-97-2221-E-239-036-MY3】
 31. Rong-Jian Chen, Yu-Cheng Peng, Jui-Lin Lai, and Shi-Jinn Horng, “Architecture Design of High Efficient and Non-memory AES Crypto Core for WPAN,” in Proceedings of Networks and Systems Security, NSS2009, pp. 36-43, Gold Coast, Australia, 19-21 October, 2009. (EI) 【NSC-97-2221-E-239-036-MY3】
 32. Shi-Jinn Horng, Yuan-Hsin Chen, Ray-Shine Run, Rong-Jian Chen, Jui-Lin Lai, and Kevin Octavius Sentosal, “An Improved Score Level Fusion in Multimodal Biometric Systems” in Proceedings of PDCAT 2009, pp. 238-246, Higashi Hiroshima Japan, 8-11 December, 2009. (EI)
 33. Rong-Jian Chen, Yu-Cheng Peng, Jun-Jian Lin, Jui-Lin Lai, and Shi-Jinn Horng, “Multi-bit and Bitwise Minimum Error Replacement Technique for Watermarking and Data Hiding” in Proceedings of SICE Annual Conference 2010, pp. 1224-1229, Taipei, 18-21 August, 2010. (EI) 【NSC-97-2221-E-239-036-MY3】
 34. Jui-Lin Lai, Han-ning Wu, Hung-Hsi Chang, Kuo-Hung Liao, Rong-Jian Chen, and Shi-Jinn Horng, “An OP-based Potantostat used in Electrochemical Bio-detection System” in Proceedings of SICE Annual Conference 2010, pp. 75-79, Taipei, 18 -21 August, 2010. (EI)
 35. Jui-Lin Lai, Ting-You Lin, Cheng-Fang Tai, Yi-Te Lai, and Rong-Jian Chen, “Design a Low-Noise Operational Amplifier with Constant-gm” in Proceedings of SICE Annual Conference 2010, pp. 322-326, Taipei, 18-21 August, 2010. (EI)
 36. Rong-Jian Chen, Yu-Cheng Peng, Jun-Jian Lin, Jui-Lin Lai, and Shi-Jinn Horng, “Novel Multi-bit Bitwise Adaptive Embedding Algorithms with Minimum Error for Data Hiding” in Proceedings of NSS2010, pp. 306-311, Melbourne, Australia, 1-3 September, 2010. (EI) 【NSC-97-2221-E-239-036-MY3】
 37. Rong-Jian Chen, Jui-Lin Lai, and Shi-Jinn Horng, “Novel Multi-bit and Multi-image Steganography Using Adaptive Embedding Algorithms with Minimum Error” in Proceedings of *The Fifth International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing* (IMIS-2011), pp. 221-228, Seoul, Korean, 30 June-2 July, 2011. (EI)
 38. Rong-Jian Chen, Jui-Lin Lai, and Shi-Jinn Horng, “Novel Multi-bit Watermarking Using Adaptive Embedding Algorithms with Minimum Error”, in Proceedings of *The Fifth International Conference on Complex, Intelligent, and Software Intensive Systems* (CISIS-2011), pp. 211-218, Seoul, Korean, 30 June-2 July, 2011. (EI)
 39. Jui-Lin Lai, Han-ning Wu, Hung-Hsi Chang, Rong-Jian Chen, “Design a Portable Bio-Sensing System for Glucose Measurement,” in Proceedings of *The Fifth International Conference on Complex, Intelligent, and Software Intensive Systems* (CISIS-2011), pp. 71-76, Seoul, Korean, 30 June-2 July, 2011. (EI)

40. Rong-Jian Chen and Shi-Jinn Horng, "Multi-bit Adaptive Embedding Algorithm for Anti-Forensic Steganography" has been accepted and should be appeared in Proceedings of *International Symposium on Biometrics and Security Technologies (ISBAST 2012)*, Taipei, Taiwan, 26-29 March, 2012. (EI)
41. Rong-Jian Chen, Jui-Lin Lai, and Shi-Jinn Horng, "Anti-Forensic Steganography Using Multi-bit Minimum Error Replacement with Flexible Bit Location" has been accepted and should be appeared in Proceedings of *International Symposium on Computer, Consumer and Control 2012 (IS3C 2012)*, Taichung, Taiwan, 4-6 June, 2012. (EI)

Text Books

1. Jih-Win Luh, Yeou-Ji Wu, Jin-In Guo and Rong-Jian Chen, *Advanced Engineering Mathematics*, Tsanghai Book Company, LTd. (Publication in Chinese)
2. Rong-Jian Chen, Jui-Lin Lai and Jin-In Guo, *Electric Circuits*, Tsanghai Book Company, LTd. (Publication in Chinese)
3. Jui-Lin Lai, Jin-In Guo, and Rong-Jian Chen, *Microprocessors and Basic Microcomputer Systems Design*, Tsanghai Book Company, LTd. (Publication in Chinese)
4. Jui-Lin Lai and Rong-Jian Chen, *Contemporary Linear Systems—Using MATLAB 4.0*, Tsanghai Book Company, LTd. (Publication in Chinese)

Teaching Experience

Linear Algebra (3 credits), Electric Circuits (6 credits), Lab of Analog Circuits (1 credit), Lab of Digital Circuits (1 credit), Signals and Systems (3 credits), Digital Signal Processing (3 credits), VLSI Digital Signal Processing (3 credits), Digital Image Processing (3 credits), Linear Systems (3 credits), Advanced Engineering Mathematics (6 credits), Neural Networks (3 credits), Introduction to Electric Engineering (2 credits), Seminar (1 credit)

Awards

1. Paper Award of National Science Council, Taiwan, 1997
2. Award of Special Issues, Education of Ministry, Taiwan, 2002
3. 2011 Best Paper Award for the IEEE Transactions on Industrial Informatics: For the paper "A Novel Anti-collision Algorithm in RFID Systems for Identifying Passive Tags," *IEEE Transactions on Industrial Informatics*, vol. 6, no.1, Feb. 2010.

Editorial Experience

1. Co-Editor for Globalization Leadership Column, IEEE Circuits and Devices Magazine, August 26, 2004 ~ Dec. 2006.
2. On Board Editor of IEEE Circuits and Systems Magazine, Dec.2004 ~ Dec. 2007.
3. Associate Editor of IEEE Trans. on Circuits and Systems, Part 1, Dec. 2005 ~ Dec. 2007.

Conference
Organizers

1. Organizing Team Member, 2001 International Workshop on Nanoelectronic Circuits and Giga-Microsystems, with Expressed Sincere Appreciation from IEEE Circuits and Systems Society,
2. Organizing Committee Member, 2003 IEEE International Symposium on Nanoelectronics and Giga-scale Systems, Miaoli, Taiwan, Oct. 2003, technically co-sponsored by IEEE Electron Devices Society and IEEE Circuits and Systems Society
3. Organizing Committee Member, 2004 IEEE International Workshop on Efficient and Competitive Professors, Hsin-Chu, Taiwan, Dec. 2004, co-sponsored by IEEE Taipei Section and IEEE CAS Society Taipei Chapter.
4. Technical Program Committee Member, 2004 IEEE International Conference on Electronics, Circuits and Systems (ICECS), Dec. 2004, Tel-Aviv, Israel.
5. Review Committee Member, 2005 IEEE International Symposium on Circuits and Systems (ISCAS), May 2005, Kobe, Japan.
6. Technical Program Committee Member, 2005 IEEE CNNA, May 2005, Shin-Chu, Taiwan.
7. Review Committee Member, 2006 IEEE International Symposium on Circuits and Systems (ISCAS), May 2006, Kos Island, Greece.
8. Technical Program Committee Member, 2006 IEEE International Conference on Electronics, Circuits and Systems (ICECS), Dec. 2006, Nice, France.
9. Technical Program Committee Member, 2007 IEEE International Conference on Electronics, Circuits and Systems (ICECS), Nice, France Dec. 2007.
10. Review Committee Member, 2008 IEEE International Symposium on Circuits and Systems (ISCAS), May 2008, Seattle, USA.
11. Technical Program Committee Member, the 14th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC'08), December 2008, Taipei, Taiwan.
12. Technical Program Committee Member, 2009 IEEE 3rd International Conference on Network and System Security, IEEE NSS 2009, October 2009, Gold Coast, Australia.
13. Technical Program Committee Member, the 15th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC'09), November 2009, Shanghai, China.
14. Technical Program Committee Member, 2010 IEEE 4th International Conference on Network and System Security, IEEE NSS 2010, September 2010, Melbourne, Australia.

15. Technical Program Committee Member, 12th IEEE Conference on High Performance and Communications, IEEE HPCC-10, September 2010, Melbourne, Australia.

16. Technical Program Committee Member, the 16th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC'10), December 2010, Tokyo, Japan.

Technical
Committees

1. Member of Nanoelectronics and Gigascale Systems Technical Committee, IEEE Circuits and Systems Society.

2. Member of Multimedia Systems and Applications Technical Committee, IEEE Circuits and Systems Society

3. Member of Life Science Systems and Applications Technical Committee, IEEE Circuits and Systems Society

4. Member of Neural Systems and Applications Technical Committee, IEEE Circuits and Systems Society

Research Areas

Digital Image/Video Signal Processing, Image/Video Coding, Pattern Recognition, Neural Networks, VLSI Design for Image Coding and Encryption, Hardware Implementation of Neural Network Systems, Biosensors

Membership

Senior Member of IEEE