Resume of Prof. Lin Wang

1. Personal Information

First Name: Lin Family Name: Wang
Birth Time: 1963 Gender: Male
E-mail: wanglin@xmu.edu.cn; http://wwcs.xmu.edu.cn/
Tel (Fax): 86-592-2580175; Mobile Phone: 8613906025008
Title: Full Professor on Information and Communication Engineering since 2002
Working address: Department of Information and Communication Engineering, School of Informatics (Telecommunication Engineering Top **150-200** since 2017 in ARWU), Xiamen University (Top **200-300** in ARWU since 2019), Fujian 361005, P.R.China
Impact statistics (citation): ResearchGate 2500 /H index: 23
https://www.researchgate.net/profile/Lin_Wang71

2. Professional Experience

Visiting Professor on School of Computing, Engineering and Mathematics, University of Western Sydney during 3-9th，Sept., 2014

Senior Research Scholar in Dept. of Electrical and Computer Engineering, University of California-Davis since Jan. 2013- July, 2013

Distinguished Professor on Information and Communication Engineering, Dept. of Communication Engineering, Xiamen University from Dec.2012 to Dec.2017

Visiting Professor on School of Computing, Engineering and Mathematics, University of Western Sydney during Sept. 28, 2012- Oct. 1, 2012

Associate Dean, School of Information Science and Tech, Xiamen University, Dec. 2003 - Dec. 2012

Professor**(No fixed-term)**on Communication and Information Systems, Dept of Communication Engineering in SIST, Xiamen University since Aug. 2010 to June, 2023

Professor**(fixed-term)**on Communication and Information Systems, Dept of Communication Engineering in SIST, Xiamen University since Nov. 2002 to July, 2010

Research Assistant, Department of Electronic Engineering, City University of Hong Kong, Jan. 2003-Apr. 2003

Associate Professor on Communication and Information Systems, School of Communication and Information Engineering, Chongqing University of Post & Telecommunications, Dec. 1999-2002

Visiting Scholar on Math & Physics, University of New England, Australia during Oct.1995-Oct.1996

Lecturer on Applied Mathematics, School of Applied Science, Chongqing University of Post & Telecomm., Dec.1991-1999

Teaching Assistant on Mathematics, Department of Mathematics Science, Chongqing Normal University, Jul. 1984-1986

3. Education Experience

Ph.D on Electronics Engineering (The subject is top one in China), University of Electronic Science and Technology of China during Sept.1997-Jun. 2001； Advisor：Prof. Juebang Yu
Title: Research on Chaotic Spreading Spectrum Sequence in CDMA Systems
M.S. on Applied Mathematics, Kunming University of Technology, China during Sept. 1986-Dec. 1988; Advisor: Prof. Jibin Li
Title: Bifurcation and Chaos in the equation of Phase-Locked Loop
B.S. on Mathematics, Chongqing Normal University, China during Sept. 1980-Jul. 1984 (Honor Class), advisor: Prof. Zheming Luo
Title: The Principle of Linear Regression and its Application

4. Academic and Technological Achievements

Journal Papers (over 60 IEEE Journal papers):

[1] Meiyuan Miao, **Lin Wang**, Guanrong Chen, Weikai Xu, Design and Analysis of Replica Piecewise M-ary DCSK Scheme for Power Line Communications with Asynchronous Impulse Noise, accepted by *IEEE Transaction Circuits & Systems-I*, 2020

[2] Tingting Fan, Weikai Xu, **Lin Wang**, Lin Zhang, A New APSK-based *M*-ary Differential Chaos Shift Keying Modulation System, accepted by *IEEE Communication Letters*, 2020

[3] Yazhen Lu, Meiyuan Miao, **Lin Wang**, Weikai Xu, A Multilevel Code-shifted Differential Chaos Shift Keying System with Reference Diversity, accepted by *IEEE Transaction on CAS-II*, 2020

[4] Sanya Liu, **Lin Wang**, Jun Chen, Shaohua Hong, Joint Component Design for the JSCC System Based on DP-LDPC Codes, *IEEE Transaction on Communications*, Vol.68, No.9, pp.5808-5818, Sept.,2020

[5] Meiyuan Miao, **Lin Wang**, Yue Rong, Weikai Xu, A Polarization MDCSK Modulation Without PDL Over Multipath Rayleigh Fading Channels, *IEEE Transaction on Vehicular Technology*, vol.69, no.6 pp.6813 - 6817 Jun., 2020

[6] Guan-Peng Fu, Shaohua Hong, Fulin Li, **Lin Wang**, *Journal of Visual Communication and Image Representation*, vol.67, no.102760, pp.1-9,2020

[7] Qiwang Chen, **Lin Wang**, Design and Analysis of Joint Source Channel Coding Schemes Over Non-Standard Coding Channels, *IEEE Transaction on Vehicular Technology*, vol.69, no.5, pp.5369-5380, May, 2020

[8]X.M. Cai， W.K. Xu, **Lin Wang**, G. Kolumban, Multicarrier M-ary Orthogonal Chaotic Vector Shift Keying with Index Modulation for High Data Rate Transmission, *IEEE Transaction on Communications*, vol. 68, no. 2, pp. 974-986, Feb. 2020.

[9]X.M. Cai, W.K. Xu, M.Y. Miao, **Lin Wang**, Design and Performance Analysis of a New M-ary Differential Chaos Shift Keying with Index Modulation, *IEEE Transactions on Wireless Communications*, vol. 19, no. 2, pp. 846-858, Feb. 2020

[10]Zhiping Xu, **Lin Wang**, Shuaohua Hong, Francis Lau, Bruce Sham, Joint Shuffled Scheduling Decoding Algorithm for DP-LDPC Codes-Based JSCC Systems,

IEEE Wireless Communication Letters, Vol. 8, Issue 6, Dec. 2019
[11]X.M.Cai, W.K.Xu, F.Xu, **Lin Wang**, M-ary Code-Shifted Differential Chaos Shift Keying with In-Phase and Quadrature Code Index Modulation, *IET Communications*, Vol. 13, Issue 19, Oct. 2019
[12]Fulin Li, Shaohua Hong, Yujie Gu, **Lin Wang,** Joint-Sparse Signal Reconstruction based on Common Support Set Refinement, *IEEE Signal Processing Letters,*Vol.26, Issue 9, 2019
[13]Xiangming Cai, Weikai Xu, Shaohua Hong, **Lin Wang**, Dual-Mode Differential Chaos Shift Keying with Index Modulation, *IEEE Transaction on Communications*, Vol.67, No.9, Sept.2019
[14]Menglei Chen, Weikai Xu, Deqing Wang, **Lin Wang**, A Multi-carrier Chaotic Communication Scheme for Underwater Acoustic Communications, *IET Communications*, Vo.13, Issue 14, 2019
[15]Xiangming Cai, Weikai Xu, Deqing Wang, Shaohua Hong, **Lin Wang**, "An M-ary Orthogonal Multilevel Differential Chaos Shift Keying System with Code Index Modulation", *IEEE Transaction on Communications*, Vol.67, No.7, July, 2019
[16]Qiwang Chen, **Lin Wang**, Pingping Chen, Guanrong Chen, "Optimization of Component Elements in Integrated Coding Systems for Green Communications: A Survey", *IEEE Communication Survey & Tutorials*, Vol.21, Issue 3, 2019.
[17]Sanya Liu, Chen Chen, **Lin Wang**, Shaohua Hong, "Edge Connection Optimization for JSCC System Based on DP-LDPC Codes," *IEEE Wireless Communication Letter*s, Vol.8, Issue 4, 2019
[18]B. Q. Zhang, W. K. Xu, Y. F. Wu, and **L. Wang**, "Design and performance analysis of multilevel code-shifted M-ary differential chaos shift keying system," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol.66, Issue 7, 2019
[19]X. M. Cai, X. K. Xu, R. F. Zhang, and **L. Wang**, "A multilevel code shifted differential chaosshift keying system with M-ary modulation," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol.66, No.8, 2019
[20]Meiyuan Miao, **Lin Wang**, Marcos Katz, Weikai Xu, "Hybrid modulation scheme combining PPM with differential chaos shift keying modulation", *IEEE Wireless Communication Letters*, Vol.8, Issue 2, April, 2019
[21]Guixian Cheng, Weikai Xu, Chen Chen, **Lin Wang**, "SWIPT Schemes for Carrier Index Differential Chaos Shift Keying Modulation: A New Look at the Inactive Carriers", *IEEE Transactions on Vehicular Technology*, Vol.68, No.23, Mar.,2019
[22]F. L. Li, S. H. Hong, Y. J. Gu, and **L. Wang**, "An optimization-oriented algorithm for sparse signal reconstruction," *IEEE Signal Processing Letters*, Vol. 26, No. 3, Mar. 2019
[23]Q. W. Chen, **L. Wang**, S. H. Hong, and Y. F. Chen, "Integrated design of JSCC scheme based on double protograph LDPC codes system," *IEEE Communication Letters*, Vol. 23, No. 2, Feb.2019
[24]X. M. Cai, W. K. Xu, **L. Wang**, and F. Xu, "Design and performance analysis of differential chaos shift keying system with dual-index modulation," *IEEE Access*, Vol. 7, Feb. 2019
[25]Y. S. Tan, W. K. Xu, T. T. Huang, and **L. Wang**, "A multilevel code shifted

differential chaos shift keying scheme with code index modulation," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol. 65, No. 11, Nov. 2018
[26]C. Chen, **L. Wang,** and F. C. M. Lau, "Joint optimization of protograph LDPC code pair for joint source and channel coding," *IEEE Trans. Communications*, Vol. 66, No. 8, Aug. 2018
[27]G. X. Cheng, **L. Wang**, Q. W. Chen, and G. Chen, "Design and analysis of generalized carrier index M-ary differential," *IET Communications*, Vol. 12, No. 11, Jul. 2018
[28]C. Chen, **L. Wang**, and S. Liu, "The design of protograph LDPC codes as source codes in a JSCC system," *IEEE Communications Letters*, Vol. 22, No. 4, Apr. 2018
[29]Q. W. Chen, **L. Wang**, Y. B. Lv and G. Chen, "Designing protograph-based LDPC codes for iterative receivers on M-ary DCSK systems," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol. 65, No. 4, Apr. 2018
[30]C. L. Zhou, W. Hu, **L. Wang** and G. Chen, "Turbo trellis-coded differential chaotic modulation," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol. 65, No.2, Feb. 2018
[31]S. H. Hong, Q. W. Chen, and **L. Wang**, "Performance analysis and optimization for edge connection of JSCC system based on double protograph LDPC codes," *IET Communications*, Vol. 12, No. 2 Feb. 2018
[32]S. H. Hong, **L. Wang**, and T. K. Truong, "Low-complexity direct computation algorithm forcubic-spline interpolation scheme," *Journal of Visual Communication and Image Representation*, Vol. 50, Jan. 2018
[33]J. Zhan, **L. Wang,** M. Katz and G. Chen, "A differential chaotic bit-interleaved coded modulation system over multipath Rayleigh channels," *IEEE Trans. Communications*, Vol. 65,No. 12, Dec. 2017
[34]W. K. Xu, T. T. Huang and **L. Wang**, "Code-shifted differential chaos shift keying with code index modulation for high data rate transmission," *IEEE Trans. Communications*, Vol. 65, No.10, Oct. 2017
[35]Y. B. Lv, S. H. Hong, **L. Wang** and Z. Xiong, "Reliability oriented decoding strategy forLDPC codes based D-JSCC system," *IEEE Communications Letters*, Vol. 21, No. 11, Nov.2017
[36]W. Hu, **L. Wang** and G. Kaddoum, "Design and performance analysis of a differentially spatial modulated chaos shift keying modulation system," *IEEE Trans. Circuits and Systems II: Express Briefs*, Vol. 64, No. 11, Nov. 2017
[37]T. T. Huang, **L. Wang,** W. K. Xu and G. Chen, "A multi-carrier M-ary differential chaos shift keying system with low PAPR," *IEEE Access*, Vol. 5, 2017
[38]W. Hu, **L. Wang**, G. F. Cai and G. Chen, "Non-coherent capacity of M-ary DCSK modulation system over multipath Rayleigh fading channels," *IEEE Access*, Vol. 5, 2017
[39]S. H. Hong, **L. Wang**, T. C. Lin, and T. K. Truong, "Mathematical analysis for CSI scheme with the interpolation kernel size increased," *IET Image Processing*, Vol. 11, No. 8, Jul. 2017.
[40]Shaohua Hong, **Lin Wang**, "Protograph LDPC Based Joint source channel coding", *Journal of Electronics and Information Technology*, Vol.39, No.11, Nov.,

2017(in Chinese)
[41]Yibo Lv,Wei Hu,**Lin Wang**,"Survey of Beyond-BP Decoding Algorithms: Theory and Applications", *Journal of Electronics and Information Technology*，Vol.39, No.6, Jun., 2017（in Chinese）
[42]Guixian Cheng, **Lin Wang**, Weikai Xu, Guanrong Chen, "Carrier Index Differential Chaotic Shift Keying Modulation", *IEEE Trans. Circuits and Syst –II*, Vol. 64, No.8, Aug., 2017.
[43]Guofa Cai, Yi Fang, Guojun Han, Francis C. M. Lau, **Lin Wang**, "A Square-Constellation-Based M-ary DCSK Communication System", *IEEE Access*, Vol.4, 2016.
[44]Guofa Cai, **Lin Wang**, Guanrong Chen, "Capacity of the Non-Coherent DCSK system over Rayleigh Channel", *IET Communications*, Vol.10, No. 18, 2016.
[45]Weikai Xu, **Lin Wang**, Chong-Yung Chi, "A Simplied GCS-DCSK Modulation and Its Performance Optimization", *International Journal of Bifurcations and Chao*, Vol.10, 2016.
[46]Yi Fang, Guojun Han, Pingping Chen, Francis C. M. Lau, Guanrong Chen, **Lin Wang,** "A Survey on DCSK-based Communication Systems and Their Application to UWB Scenarios", *IEEE Communications Surveys & Tutorials* , Vol. 18, No. 3, Third Quarter, 2016.
[47]Qiwang Chen, **Lin Wang**, Shaohua Hong, Zixiang Xiong, "Performance Improvement of JSCC Scheme through Re-designing Channel Code", *IEEE Communication Letters*, Vol. 20, No. 6, Jun. 2016.
[48]Tingting Huang, **Lin Wang**, Weikai Xu, Francis C.M. Lau, "A Multilevel Code-Shifted Differential-Chaos-Shift-Keying System", *IET Communication*, Vol. 10, No. 10, Jun. 2016.
[49]Pingping Chen, Lingjun Kong, Yi Fang, **Lin Wang**, "The Design of Protograph LDPC Codes for Two-Dimensional Magnetic Recording Channels", *IEEE Transaction on Magnetics,* Vol. 51, No. 11, May 2015.
[50]Chen Chen, **Lin Wang**, Zixiang Xiong, "Matching Criterion between Source Statistics and Source Coding Rate", *IEEE Communication letters*, Vol. 19, No. 9, Sept. 2015
[51]**Lin Wang**, Guofa Cai, Guanrong Chen, "Design and Performance Analysis of a New Multiresolution M-ary Differential Chaos Shift Keying Communication System". *IEEE Transaction on Wireless Communications*, Vol. 14, No. 9, Sept. 2015
[52]Yibo Lv, **Lin Wang**, Guofa Cai, Guanrong Chen, "Iterative Receiver for M-ary DCSK systems". *IEEE Transaction on Communications,*Vol.63, No.11, Nov.2015
[53]Yi Fang, Yong Liang Guan，**Lin Wang**，Francis C. M. Lau, "Rate-Compatible Root-Protograph LDPC Codes for Quasi-Static Fading Relay Channels". *IEEE Trans. Vehicular Technology*, Vol. 65, No. 4, Apr. 2015.
[54]Yi Fang, **Lin Wang**, Pingping Chen， Jing Xu, Guanrong Chen, Weikai Xu, "Design and Analysis of a DCSK-ARQ/CARQ System over Multipath Fading Channels", *IEEE Trans. Circuits and Syst-I*, Vol. 62, No. 11, Jun. 2015.
[55]Weikai Xu, Zheng Yang, Zhiguo Ding, **Lin Wang** and Pingzhi Fan, "Wireless Information and Power Transfer in Two-Way Relaying Network with Non-Coherent

Differential Modulation," *EURASIP Journal on Wireless Commun. and Networking,* Vol. 131, 2015
[56]Yong Li, Pengwei Zhang, **Lin Wang**, T.K.Truong, Comments on "On decoding of the (89, 45, 17) Quadratic Residue Code", *IEEE Transaction on Communications,* Vol.63, No.2, Feb., 2015
[57]Weikai Xu, **Lin Wang**, Guanrong Chen, "Performance Analysis of the CS-DCSK/ BPSK Communication System", *IEEE Trans*. *Circuits and Syst–I*, Vol. 61, No. 9, Sept. 2014.
[58]Huihui Wu, **Lin Wang**, Shaohua Hong, Jiguang He, "Performance of Joint Source-Channel Coding Based on Protograph LDPC Codes over Rayleigh Fading Channels", *IEEE Communication Letters*, Vol. 18, No. 4, Apr. 2014.
[59]Guangfu Wu, **Lin Wang**,T.K.Truong**,** "The use of Matroid Theory to Construct A Class of Good Binary Linear Codes", *IET Communications*, Vol. 8, No.6, 2013.
[60]Yong Li, **Lin Wang**, Zhi Ding, "An Integrated Linear Programming Receiver for LDPC Coded MIMO-OFDM Signals", *IEEE Transaction on Communications*, Vol. 61, No. 7, Jul. 2013.
[61]Yi Fang, K.-K. Wong, **Lin Wang**, K.-F. Tong, "Performance analysis of protograph LDPC codes for Nakagami-m fading relay channels," *IET Communications*, Vol. 7, No. 11, Arp. 2013.
[62]**Lin Wang**, Yong Li, T.K.Truong, "On decoding of the (89, 45, 17) Quadratic Residue Code", *IEEE Transactions on Communications,* Vol. 61, No. 3, Mar. 2013.
[63]Guangfu Wu, **Lin Wang**, "Construction of High Rate LDPC Codes with short Block Length", Journal of Applied Science，Vol. 31, No. 6, Nov. 2013（in Chinese）
[64]Yi Fang, Pingping Chen, **Lin Wang**, Francis C. M. Lau, and Kai-Kit Wong "Performance Analysis of Protograph-based LDPC Codes with Spatial Diversity", *IET Communications*, Vol. 6, No. 17, Nov. 2012.
[65]Pingping Chen, **Lin Wang** and Francis C. M. Lau, "One analog STBC-DCSK transmission scheme not requiring channel state information," *IEEE Trans. Circuits and Syst –I*, Vol. 60, No. 4, Apr. 2013.
[66]Shaohua Hong, Zhiguo Shi, **Lin Wang**, Yujie Gu, Kangsheng Chen, "Adaptive regularized particle filter for synchronization of chaotic Colpitts circuits in an AWGN channel," *Circuits, Systems, and Signal Processing*, Vol. 32, No. 2, Apr. 2013.
[67]Shaohua Hong, **Lin Wang**, T.K.Truong, "Novel Approaches to the Parametric Cubic-Spline Interpolation", *IEEE Transaction on Imaging Processing*, Vol. 22, No. 3, Mar. 2013
[68]Yi Fang, Jing Xu, ***Lin Wang***, G. R. Chen, Performance of MIMO relay DCSK-CD systems over nakagami fading channels, *IEEE Trans. Circuits and Syst.-I*, Vol. 60, No. 3, Mar. 2013.
[69]Pingping Chen, Yi Fang, **Lin Wang**, Francis C. M. Lau, "Decoding Generalized Joint Channel Coding and Physical Network Coding in the LLR Domain", *IEEE Signal Processing Letters*, Vol. 20, No. 2, Feb. 2013.
[70]Guangfu Wu , Hsin-Chiu Chang, **Lin Wang**, and T.K.Truong, "Constructing Rate 1/p Systematic Binary Quasi-Cyclic Codes Based on the Matroid Theory," *Designs, Codes and cryptography*, Vol. 45, No. 10, Oct. 2012.

[71]Yi Fang, Pingping Chen, **Lin Wang**, Francis C. M. Lau, “Design of Protograph LDPC Codes over Partial Response Channels,” *IEEE Trans. Commun.*, Vol. 60, No. 10. Jul. 2012.
[72]Weikai Xu, **Lin Wang**, G. Kolumban, “A New Data Rate Adaption Communications Scheme for Code-Shifted Differential Chaos Shift Keying Modulation," *International Journal of Bifurcations and Chaos*, Vol. 22, No. 7, 2012
[73]Yi Fang, Pingping Chen, and **Lin Wang**, “Performance analysis and optimization of a cooperative FM-DCSK UWB system under indoor environments,” *IET Networks,* Vol. 1, No. 2, Jun. 2012
[74]Pingping Chen and **Lin Wang**, “A serial joint channel and physical layer network decoding in two-way relay networks,” *IEEE communications letters*, Vol. 16, No. 6, Jun. 2012.
[75]Pingping Chen, **Lin Wang**, Guanrong Chen, “DDCSK-Walsh Coding: A Reliable Chaotic Modulation Based Transmission Technique,” *IEEE Trans.CAS Part II*, No. 2, Vol. 59, Jan. 2012
[76]Zhexin Xu, **Lin Wang**, Kyung Sup Kwak, Guanrong Chen, "Designing Delay Lines Based on GDRR for TR-UWB Systems", *IET Communications*, Vol. 5, No.17, Jul. 2011
[77]Pingping Chen, Yi Fang, **Lin Wang**, “A Family of Protograph LDPC Codes for PR Channels,” Journal of Applied Science, Vol. 30, No. 1, 2012(in Chinese).
[78]Shaohua Hong, **Lin Wang**, ZhiguoShi, Kangsheng Chen, “Simplified Particle PHD Filter for Multiple-Target Tracking: Algorithm and Architecture," *Progress in Electromagnetic Researchers*，Dec. 2011.
[79]Yong Li, **Lin Wang**, T.K.Truong, “Soft decoding of the (23, 12, 7) Golay code up to five errors," *IET Communications*, Vol.5, No.15, Jul. 2011.
[80]Yi Fang, **Lin Wang**, Pingping Chen, Min Xiao, “Joint Optimization Algorithm for Protograph LDPC Codes,” *Journal of Applied Science,* Vol. 29, No. 6, Nov. 2011.(in Chinese)
[81]Min Xiao, Yong Li, **Lin Wang**, “Puncturing Algorithm for Design Rate-Compatible LDPC Codes,” *Journal of Applied Science,* Vol. 29, No. 4, Jul. 2011(in Chinese)
[82]Zhexin Xu, **Lin Wang**, Guanrong Chen. “Designing Delay Lines Based on the SD/DE Algorithm for Transmitted-Reference Ultra-Wideband Systems," *Circuits, Systems and Signal Processing*, Vol. 30, No. 6, Dec. 2011.
[83]**Lin Wang**, Xin Min, Guanrong Chen, “Performance of SIMO FM-DCSK UWB System Based on Chaotic Pulse Cluster Signals”, *IEEE Trans. Circuits and Syst.-I*, Vol. 58, No. 9, Apr. 2011.
[84]Min Xiao, **Lin Wang**, Tiffany Jing Li, “Designing Rate-Compatible Irregular Repeat Accumulate Codes through Splitting”, *IEEE Communications Letters*, Vol. 15, No. 10, Oct. 2011.
[85]Yi Fang, Jianwen Zhang, **Lin Wang**, “Joint decoding algorithm of LDPC codes” *Journal of System Engineering and Electronics*, Vol. 33, No. 6, 2011.
[86]Weikai Xu, **Lin Wang**, G. Kolumban,“ A Novel Differential Chaos Shift Keying Modulation Scheme,” *International Journal of Bifurcations and Chaos*, Vol. 21, No. 3,

2011.

[87]Weikai Xu, **Lin Wang**, Guanrong Chen, “Performance of DCSK Cooperative Communication Systems over Multipath Fading Channels”, *IEEE Trans. Circuits and Syst.-I* , Vol. 50, No. 1, Jan. 2011.

[88]Dongfu Xie，**Lin Wang**，Pingping Chen，“Decoder with Low Resource Overhead for Multi-edge Type LDPC Codes Based on Cache,” *Journal of Applied Science,*, Vol. 8, No. 6, Nov. 2010(in Chinese).

[89]Shaoyuan Chen, **Lin Wang,** Guanrong Chen, “Data-Aided Timing Synchronization for FM-DCSK UWB Communication Systems,” *IEEE Transactions on Industrial Electronics*, Vol. 57, No. 5, May 2010.

[90]Xin Min, Weikai Xu, **Lin Wang**, Guanrong Chen, “Promising Performance of a Frequency-Modulated Differential Chaos Shift Keying Ultra-Wideband System under Indoor Environments,” *IET Communications*, Vol. 4, No. 2, Jan. 2010

[91]Chaoxian Zhang, **Lin Wang**, Guanrong Chen, “Promising Performance of PA Coded SIMO FM-DCSK Communication Systems,” *Circuits, Systems and Signal Processing*, Vol. 27, No. 6, Nov. 2008.

[92]**Lin Wang**, Chaoxian Zhang, Guanrong Chen, “Performance of an SIMO FM-DCSK Communication System,” *IEEE Transactions on Circuits and Systems- II*: Express Briefs, Vol. 55, No. 5, May 2008.

[93]Xiao-Song Yang, Quan Yuan, **Lin Wang**, “What connection Topology Prohibit Chaos in Continuous Time Networks," *Advances in Complex Systems*, Vol. 10, No. 4, Dec. 2007.

[94]Qinfang Wei, **Lin Wang**，Gefei Yu, “Design and Simulation for Punctured Woven Convolutional Codes”, *Journal of UESTC*, Vol. 37, No. 1, 2008(in Chinese).

[95]Weikai Xu, **Lin Wang** “Simulation for LDPC Codes over WCDMA Downlink Channels ”, *Journal of System Simulation*, Vol. 19, No. 4, 2007(in Chinese).

[96]Weikai Xu, **Lin Wang**, “Simulation Implementation of LDPC Codes Based on SPW”, *Journal of System Simulation*, Vol. 17, No. 10, 2005(in Chinese).

[97]Juan Xiao, **Lin Wang**, Lizhao Deng, “Density Evolution Method and Threshold Decision for Irregular LDPC Codes”, *Journal of Electronics and Information Technology*, Vol. 27, No. 4, 2005(in Chinese).

[98]Lifen Ye, Guanrong Chen, **Lin Wang**, “Essence and Advantages of FM-DCSK Technique versus Conventional Spreading Spectrum Communication Method," *Circuits, Systems and Signal Processing*, Vol. 24, No. 5, Oct. 2005.

[99]Jinde Cao, **Lin Wang**, “Exponential stability and periodic oscillatory solution in BAM networks with delays," *IEEE Transactions on Neural Networks*, Vol. 13, No. 2, Mar. 2002.

[100]Jinde Cao, **Lin Wang**, “Periodic Oscillatory Solution of Bidirectional Associative Memory Networks with Delays," *Physical Review E*, Vol. 61, No. 2, Feb. 2000

International Conference Papers

[1] Yin Liu, **Lin Wang**, Huihui Wu, Sanya Liu, Performance of Lossy P-LDPC Codes over GF(2), ICSPCS2020/IEEE, 14-16th, Dec., 2020, Adelaide, Australia

[2] Bin Wang, **Lin Wang**, P. Takis Mathiopoulos, An Efficient Bit Allocation Scheme for Weighted Random Graph Signal Sampling and Quantization, ICSPCS2020/IEEE, 14-16th, Dec., 2020, Adelaide, Australia
[3] Shaohua Hong, **Lin Wang**, Trieu-Kien Truong, A new simple direct computation of cubic convolution spline interpolation, ICIP2020/IEEE, 25-27th,Oct. 2020，United Arab Emirates
[4] Luyao Hu, Weikai Xu, **Lin Wang**, An OFDM-based Chaotic Chip Position Keying with Permutation Index Modulation, ISMICT/IEEE, 20-22th, May, 2020, Nara, Japan
[5]Yazhen Lu, Meiyuan Miao, **Lin Wang**, Weikai Xu, Advantages of Direct Network-Coded M-ary Differential Chaos Shift Keying Systems, ISCIT 2019/IEEE, 25-27th, Sept, 2019, Ho Chi Minh City, Vietnam
[6]Rongfang Zhang, Weikai Xu, Xiangming Cai, **Lin Wang**, Generalized Time-Domain Index Modulation with A Low Complexity Detection Method, ISCIT 2019/IEEE, 25-27th, Sept, 2019, Ho Chi Minh City, Vietnam
[7] Xiangming Cai, Weikai Xu, **Lin Wang**, Performance Analysis and Optimization of M-ary Code Shifted Differential Chaos Shift Keying System, ISCIT 2019/IEEE, 25-27th, Sept, 2019, Ho Chi Minh City, Vietnam
[8]F. L. Li, S. H. Hong, and **L. Wang**, "A Novel Near Lossless Image Compression Method," 2019ISCAS/IEEE, 26-29th May 2019, Sapporo, Japan.
[9]S. H. Hong, **L. Wang**, and T. K. Truong, "An improved approach to the cubic-spine interpolation," 25th ICIP/IEEE, 7-10th Oct. 2018, Athens, Greece.
[10] F. L. Li, S. H. Hong, and **L. Wang**, "A new satellite image fusion method based on distributed compressed sensing," 25th ICIP/IEEE, 7-10th Oct. 2018, Athens, Greece.
[11]B. Q. Zhang, **L. Wang,** C. L. Zhou, and W. K. Xu, "Serial concatenated trellis-coded differential chaotic modulation," 29th PIMRC/ IEEE, 9-12th Sep. 2018, Bologna, Italy.
[12]Y. Y. Zhang, **L. Wang**, Q. W. Chen, and W. K. Xu, "Optimization of constellation-based DC-BICM systems over power line channels," 29th PIMRC/ IEEE, 9-12th Sep. 2018, Bologna, Italy.
[13]C. L. Zhou，W. Hu，**L. Wang**，and W. K. Xu, "IQ-interleaved Turbo Trellis-coded differential chaotic modulation scheme," 23rd APCC, 11-13th Dec. 2017, Perth, WA, Australia.
[14]M. L. Chen, W. K. Xu, D. Q. Wang and **L. Wang**, "Design of a multi-carrier different chaos shift keying communication system in doubly selective fading channels," 23rd APCC, 11-13thDec. 2017, Perth, WA, Australia.
[15]M. Y. Zheng, T. T. Huang, **L. Wang**, and P. P. Chen, "Performance analysis of M-ary DCSKsystem over narrow band power-line communications," 23rd APCC, 11-13th Dec. 2017, Perth,WA, Australia.
[16]Yaofei Song, Weikai Xu and **Lin Wang**, Protocols of simultaneous wireless information and power transfer scheme for multi-carrier DCSK, 2017 IEEE 2nd Advanced Information Technology, Electronic and Automation Control Conference (IAEAC), Chongqing, 2017, pp. 1651-1655.

[17]Yi Fang, Guofa Cai, Guojun Han, **Lin Wang**, and Pinping Chen, Performance analysis and comparison of three multiple-access DCSK cooperative communication systems over multipath fading channels, 17thISCIT/IEEE, Sept. 2017, Queensland, Australia
[18]Y. C. He, **L. Wang**, C. L. Zhou and G. Chen, "A novel Trellis-Coded Differential Chaotic Modulation system," 18th WTS/IEEE, 26-28th Apr. 2017, Chicago, IL, USA
[19]Long Kong, Jiguang He, Georges Kaddoum, Satyanarayana Vuppala, **Lin Wang**, Secrecy Analysis of A MIMO Full-Duplex Active Eavesdropper with Channel Estimation Errors, Proc.VTC Fall 2016/IEEE, 18-21, Sept.2016, Montreal, Canada.
[20]Yogesh Nijsure, Georges Kaddoum, Golnaz Ghodoosipour, Guofa Cai, **Lin Wang**, A Novel Spectrum Sensing Mechanism Based on Distribution Discontinuity Estimation within Cognitive Radio, Proc.VTC Fall 2016/IEEE, 18-21, Sept.2016, Montreal, Canada.
[21]Weikai Xu, **Lin Wang**, CIM-DCSK: A Differential Chaos Shift Keying Scheme with Code-Index Modulation, Proc. IEEE ISCIT, Qingdao, China, 26-28th, Sept., 2016, Qingdao, China.
[22]Qiwang Chen, **Lin Wan**g, Shaohua Hong, An Image Pre-processing Approach for JSCC Scheme Based on Double Protograph LDPC Codes, in Proc. IEEE ISCIT, Qingdao, China, 26-28th, Sept.,2016
[23]Shaohua Hong, Xinyuan Yu, Qiwang Chen, **Lin Wang**, Improved Nonlinear Resolution Enhancement Based on Laplacian Pyramid, Proc. IEEE ISCIT, Qingdao,
[24]Zhi Lin, **Lin Wang**, Eryk Dutkiewicz, Xiaojing Huang, Performance Analysis of Chaotic Sampling and Detection in CS-DCSK UWB System, Proc. VTC Spring 2016/ IEEE, 15-18th, May, 2016, Nanjing, China.
[25]Yibo Lv, **Lin Wang**, Zixiang Xiong, Performance Advantage of Joint Source-Channel Decoder over Iterative Receiver under M-ary Differential Chaotic Shift Keying Systems, Proc. VTC Spring 2016/IEEE, 15-18th, May, 2016, Nanjing, China.
[26]Guofa Cai, **Lin Wang**, Long Kong, Georges Kaddoum, SNR Estimation for FM-DCSK System over Multipath Rayleigh Fading Channels, Proc. VTC Spring 2016/IEEE, 15-18th, May, 2016, Nanjing, China
[27]Jiyu Bao, Weikai Xu, **Lin Wang**, Tingting Huang, Performance Analysis and Sub-carriers Power Allocation for MC-QCSK，Proc.WCSP 2015/IEEE, Oct 15-17th, 2015, Nanjing, China.
[28]Pingping Chen, Kaixiong Su, **Lin Wang**, Yi Fang, An Improved DDCSK-Wash Coding Technique with BCJR Decoding, Proc. ISCIT2015/IEEE, 7-9th, Oct.2015, Nara, Japan.
[29]**Lin Wang**, Huihui Wu, Shaohua Hong, The Sensitivity of Joint Source-Channel Coding Based on Double Protograph LDPC Codes to Source Statistics, Proc.ISMICT2015/IEEE, Mar. 24-26th, 2015, Kamakura, Japan.
[30]Tingting Huang, **Lin Wang**, Weikai Xu, System Parameter Adjustment of FM-DCSK UWB for Different Medical Environments, Proc.ISMICT2015/IEEE, Mar. 24-26th, 2015, Kamakura, Japan.
[31]Silin Zhu, Shaohua Hong, **Lin Wang**. An improved nonlinear image enhancement

algorithm, *Proc.*ISCIT2014/IEEE, Sept. 24-26, 2014, Incheon, Korea.
[32]Chen Chen, **Lin Wang**, Zhuhan Jiang. Adaptive rate allocation scheme for joint source-channel coding based on double protograph LDPC codes, *Proc.*WPMC2014/IEEE. Sep 7-10th, Sydney, Australia.
[33]Weikai Xu, **Lin Wang**, and Tingting Huang, Optimal power allocation in MC-DCSK communication system, *Proc.*ISCIT2014/IEEE, Sept. 24-26, 2014, Incheon, Korea
[34]Yibo Lv, Guofa Cai, **Lin Wang**, Iterative Demodulation and Decoding of LDPC-Coded M-ary DCSK Modulation over AWGN Channel, *Proc.ISMICT2014 /IEEE*, April 2-4th, 2014, Florence, Italy.
[35]Liangliang Xu, **Lin Wang,** Shaohua Hong, Huihui Wu, New Results on Radiography Image Transmission with Unequal Error Protection Using Protograph Double LDPC Codes, *Proc.ISMICT2014 /IEEE*, April 2-4th, 2014, Florence, Italy.
[36]Jianwei Zhang, Weikai Xu, **Lin Wang**, A New Simulation Model Based on EESM for VANETs, *Proc.NTMS2014/IEEE*,Mar.30th to April 2th, 2014, Dubai.
[37]Weikai Xu, **Lin Wang** and Zhuhan Jiang, A New User Cooperative Protocol Based on Code-Shifted Differential Chaos Shift Keying Modulation, *Proc. ISCIT 2013/IEEE*, 4th-6th, Sept., 2013, Samui Island, Thailand.
[38]Yibo Lv, **Lin Wang**, An Modified Beyond Belief Propagation Algorithm over AWGN Channel, *Proc. ISCIT 2013/IEEE*, 4th-6th, Sept., 2013, Samui Island, Thailand
[39]Guofa Cai, **Lin Wang**, Tingting Huang, Channel Capacity of M-ary Differential Chaos Shift Keying Modulation over AWGN Channel, *Proc. ISCIT 2013/IEEE*,4th-6th, Sept., 2013, Samui Island, Thailand
[40]Tingting Huang, **Lin Wan**g, Weikai Xu, Guofa Cai, Adaptive Retransmission Mechanism for SIMO FM-DCSK UWB System, *Proc. ISCIT 2013/IEEE*, 4th-6th, Sept., 2013, Samui Island, Thailand
[41]Jianxing Jiang, Shaohua Hong, **Lin Wang**, A Space-Variant Cubic-Spline Interpolation, *Proc. Of 21th European Signal Processing Conference*, 9-13th, Sept., 2013, Marrahech, Morocco
[42]Yi Fang, **Lin Wang**, Kai Kit Wong, Kin-Fai Tong, Performance of Joint Channel and Physical Network Coding Based on Alamouti STBC, *Proc.ICUWB2013/IEEE*, Sydney, Australia, 15-18th, Sept., 2013 (EI)
[43]Weikai Xu, Zhixiong Chen, **Lin Wang**, Performance of CM-TR UWB Communication System in the Presence of a Single Narrow Band Interferer, *Proc.ICUWB2013/IEEE*, Sydney, Australia, 15-18th, Sept., 2013
[44]L. T. Lin, S. H. Hong, T. K. Truong, **L. Wang**, An improved approach to the cubic-spline interpolation, Proc. of SPIE- Applications of Digital Image Processing, Aug. 26-29, 2013, San Diego, CA, United States
[45]Liangliang Xu, Huihui Wu, Jiguang He, **Lin Wang**, Unequal Error Protection for Radiography Image Transmission Using Protograph Double LDPC Codes, *Proc.WTS 2013/IEEE*, Phoenix, Arizona, USA, 17-19th, April, 2013
[46]Yi Fang，**Lin Wang**, Guanrong Chen, Performance of a Multiple-Access DCSK-CC System over Nakagami-m Fading Channels, *Proc. ISCAS 2013/IEEE*,

26-28th, May, 2013, Beijing, China
[47]Yong Li, **Lin Wang**, Zhi Ding, Linear Programming based Joint Detection of LDPC coded MIMO systems, *Proc. IEEE Globecom.*, Anaheim, California, USA, Dec. 3rd-7th, 2012
[48]Shaohua Hong, Jianxing Jiang, **Lin Wang**, "Improved Residual Resampling Algorithm and Hardware Implementation for Particle Filters," in *Proc of 4th WCSP*, Huangshan, China, Oct, 2012.
[49]Long Kong, Pingping Chen and **Lin Wang**, "Outage probability Analysis of a Space-time Block Coding Physical-Layer Network Coding," in *Proc of 4th WCSP,* Huangshan, China, Oct, 2012
[50]Pingping Chen, **Lin Wan**g and Jiguang He, "Physical-layer network coding and precoding for end nodes using Alamouti scheme," in *Proc*. *IEEE ISCIT*, Gold Coast, Australia, Oct. 2012
[51]Jiguang He, Lin Wang and Pingping Chen, "A Joint Source and Channel Coding Scheme Base on Simple Protograph Structured Codes," in *Proc. IEEE ISCIT*, Gold Coast, Australia, Oct. 2012
[52]T.K.Truong, Shaohua, Hong, **Lin Wang**, et al, "The Parametric Cubic-Spline Interpolation," in *Proc. IEEE IPCV*, Las Vegas, USA , July 16-19, 2012
[53]Huihui Wu, Jiguang He, Liangliang Xu, **Lin Wang**, Joint Source-Channel Coding Based on P-LDPC Codes for Radiography Images Transmission, Proc. of 12th IEEE IUCC, June 25-27th,2012,Liverpoool, UK
[54]Zhixiong Chen, Weikai Xu, Jin Huang, **Lin Wang**, Performances of CS-DCSK UWB Communication System in the Presence of Narrow Band Interferers, Proc. of 12th IEEE IUCC, June 25-27th,2012,Liverpoool, UK
[55]Jin Huang, Zhexin Xu, Weikai Xu, **Lin Wang,** Error Performance Analysis of Opportunistic Relaying System Based on DCSK, Proc. of 12th IEEE IUCC, June 25-27th,2012,Liverpoool, UK
[56]Long Kong, Pingping Chen, Weikai Xu, **Lin Wang**, Performance of FM-DCSK UWB for Wireless Body Area Network, in Proc. 19th IEEE International Conference on Microwaves, Radar and Wireless Communications, May 21-23rd, 2012, Warsaw, Poland.
[57]Yi Fang, Shaohua Hong, **Lin Wang**, A Novel MIMO Relay FM-DCSK UWB System for Low-Rate and Low-Power WPAN Applications, ISCIT2011/IEEE, 12-14th, Oct., 2011, Hangzhou, China
[58]Shaohua Hong, **Lin Wang**, Improved Roughening Algorithm and Hardware Implementation for Particle Filter Applied to Bearings-Only Tracking, ISCIT 2011/IEEE, 12-14th, Oct., 2011, Hangzhou, China
[59]SiJie Yang, **Lin Wang**， Yi Fang and Pingping Chen, "Performance of Improved AR3A code over EPR4 channel, ?in Proc.ICCRD, Shanghai, China, Mar.11-13, 2011
[60]Yi Fang, Jianwen Zhang, **Lin Wang**, Francis C.M. Lau, BP-Maxwell Decoding Algorithm for LDPC Codes over AWGN Channel, Proc. of the 6th WiCOM/IEEE, Sept 22nd to 25th, 2010, Chengdu, China
[61]Weikai Xu, **Lin Wang**, Francis C.M. Lau, Multiple-Stream Code-Multiplexed Transmitted-Reference Ultra-Wideband Systems, *Proc. of the 6th WiCOM/IEEE*, Sept

22nd to 25th, 2010, Chengdu, China
[62]Jing Xu, Weikai Xu, **Lin Wang**, Guanrong Chen, Design and Simulation of a Cooperation Communication System Based on DCSK/FM-DCSK, ISCAS 2010/IEEE, May 30-June 2, 2010, Paris, France
[63]Guanghui Liu, Hongliang Li, Wei Chen, Mingzhen Wang, and **Lin Wang**, Parallel-Filtering Based Equalization of OFDM over Doubly Selective Channels, Globecom 2010/IEEE, 6-10th, Dec., Miami, USA.
[64]Shaoyuan Chen, Weikai Xu, **Lin Wang**, Kyung Sup Kwak, Performance of FM-DCSK UWB with Timing Error, ISCIT 2009/IEEE, Sept.28-30, 2009, Incheon, Korea
[65]Xin Min, Weikai Xu, **Lin Wang**, An SIMO FM-DCSK UWB Scheme for Low-rate WPAN Applications, ISCIT 2009/IEEE, Sept.28-30, 2009, Incheon, Korea
[66]Ying You, Min Xiao, **Lin Wang**, The Rate-Compatible Multi-Edge Type LDPC Codes with Short Block Length, WiCOM 2009/IEEE, Sept.24-26, 2009, Beijing, China
[67]Z.H.Cai, J.Hao, **L.Wang**, An Efficient Early Stopping Scheme for LDPC Decoding Based on Check-Node Message, ICCS 2008/IEEE, 19-20th, Nov.,2008, Singapore
[68]Shanshan Yang, Weikai Xu, **Lin Wang**, Qinfang Wei, Performance of STBC-IDMA System over Quasi-Static Rayleigh Fading Channel, ICCCAS2008/IEEE, May 25-27th, 2008, Xiamen, China
[69]Jianwen Zhang, Min Xiao, **Lin Wang**, Encoder Design and Its Hardware Implementation for Q-ary LDPC Codes, ICCCAS2008/IEEE, May 25-27th, 2008, Xiamen, China
[70]Liming Chen, Weikai Xu, **Lin Wang**, Performance of Improved FM-DCSK system Based on Differential-coding Method, ICCCAS2008/IEEE, May 25-27th, 2008, Xiamen, China
[71]Xiang Yang, **Lin Wang**, Yong Li, Performance of Q-ary PCGC Based on PEG Algorithm, ISPACS2007/IEEE, Nov.28-Dec.1, 2007, Xiamen, China
[72]Dongchang Hu, **Lin Wang**, Asymptotic Performance Analysis of LDPC Coded Iterative Multi-User Detection Scheme with EXIT Charts, ISPACS2007/IEEE, Nov.28-Dec.1, 2007, Xiamen, China
[73]Yingxin Yu, **Lin Wang**, Qinfang Wei, Design and Simulation of Punctured Woven Convolutional Codes, ICCCAS2007/IEEE, July 11-13th, 2007, Fukuoka, Japan
[74]Minhan Zheng, **Lin Wang**, Yuliang Tang, Shaping Gain of LDPC Coded-QAM Transmitting Systems With Non-Uniform Constellation, ICCCAS2007/IEEE, July 11-13th, 2007, Fukuoka, Japan
[75]Yao Luo, **Lin Wang**,Jun Ling, The Coding-Spreading Trade-off in LDPC-Coded Interleave-Division Multiple-Access (IDMA) System, ICCT2006/IEEE, Nov.27-30, 2006, Guilin, China
[76]Long Ma, **Lin Wang**, Jianwen Zhang, Performance Advantage of Non-binary LDPC Codes At High Code Rate under AWGN Channel, ICCT2006/IEEE, Nov.27-30, 2006, Guilin, China

[77]Jun Ling, **Lin Wang**, Yao Luo, Haibin Wang, Performance of LDPC-Coded Interleave-Division Multiple-Access (IDMA) System, Proc.ICWMMN 2006/IET, Nov.6?,2006,Hangzhou, China

[78]Min Xiao, **Lin Wang**, Weikai Xu, Haibin Wang, Advantages of Product Accumulate Codes over Regular LDPC Codes under AWGN Channel, Proc.ICSP2006/IEEE, Nov.16-20, 2006, Guilin, China

[79]Yulei Xia,**Lin Wang**，GR Chen，Adaptability between FM-DCSK and Channel Coding over Fading Channels, Proc.MAPE2005/IEEE, Aug.8-12, Beijing, China

[80]**Lin Wang**, Gefei Yu, Qinfang Wei, Using Convolutional Codes with Maximum Slope to Optimize Performance of Woven Convolutional Codes, Proc.ICCCAS2005/IEEE，May 27-30，Hong Kong, China

[81]Junbin Chen, **Lin Wang**, Yong Li, Performance Comparison between Non-binary LDPC Codes and Reed-Solomon Codes over Noise Burst Channels Proc.ICCCAS2005/IEEE，May 27-30，Hong Kong, China(Best Paper Award)

[82]Yong Li, **Lin Wang**, Junbin Chen, The Design and Simulation of Q-ary LDPC Codes Based on the PEG Algorithm,14th IST Mobile and Wireless Communications Summit,19-23th,June,2005,Dresden,Germany

[83]**Lin Wang**, Guangron Chen, Using LDPC Codes to Enhance the Performance of FM-DCSK，Proc.MWSCAS2004/IEEE，July 25-28,2004，Hiroshima，Japan

[84]**Lin Wang**, Dan Wang, Jun-yong Wang, Performance of Woven Convolutional Codes with BCJR Algorithm, Proc.2004 ISPACS/IEEE，Nov.18-19, Seoul, Korea

[85]Hongyu Zhang, **Lin Wang**，Juebang Yu, A Chaotic Interleaver Used in Turbo Codes，Proc.ICCCAS2004/IEEE，June 27-29，2004，Chengdu, China

[86]**Lin Wang**, Mu Wei, Hongyu Zhang, Juebang Yu, Performance Comparison between Q-CDMA and Chaotic Spreading Spectrum CDMA Communication System over Saleh Indoor Channel, Proc. APCCAS2000/IEEE, pp300-303, Dec.4-6, 2000, Tianjin, China

Book:

[1] **Lin Wang,** Weikai Xu, Principle and Its Applications of Approaching Capacity Channel Encoder and Decoder, Press of People Post, 2007(in Chinese)

Chinese Patents(selected over 21):

[1]Weikai Xu, Menglei Chen, **Lin Wang**, Invention Patent: A multilevel code shifted differential chaos shift keying modulation based on orthogonal frequency division multiplexing, No: ZL 201710794788.1, Authorization Time: 09/06/2017

[2]Lin Wang, Hongyu Zhang, Invention Patent: One Chaotic Interleaver Method, No: ZL 01107339.X, Authorization Time: 08/18/2004

[3]Hongyu Zhang, **Lin Wang,** Invention Patent: Random Spreading Coded Modulation Technique Approaching Shannon Limit, No: ZL 01108568.1, Authorization Time: 09/08/2004

[4]**Lin Wang,** Juebang Yu, Neng Nie, and others, Invention Patent: Address Codes Method of Chaotic Spreading Spectrum in CDMA systems, No: ZL 00113085.4, Authorization Time:.09/28/2005

[5]Dongfu Xie,Weikai Xu, **Lin Wang,** and others,Practical Patent: Wireless Multi Media Game Systems in Home, No:200720009025.3, Authorization Time: 06/13/2008.
[6]**Lin Wang,** Yong Li, Weikai Xu, Gang Chen, Invention Patent: Decoding Method Based on PEG for Q-ary LDPC Codes, No: ZL200510057105.1, Authorization Time: 10/25/2008.
[7]**Lin Wang,** Dongfu Xie, Weikai Xu, and others, Invention Patent: Decoding Implementation Based on Pipeline for LDPC Codes, No: ZL200710092476.2, Authorization Time: 02/24/2010
[8]Dongfu Xie, **Lin Wang**, Min Xiao, etc., Invention Patent: Decoding Implementation Based on Routing Technique for LDPC Codes", No:200710092500.2, Authorization Time: 07/07/2010
[9]Wenjun Zhang, Jianwen Zhang, Liming Chen, Dongfu Xie, **Lin Wang**, Invention Patent: The Encoder and Its Design Based on One Structured LDPC Codes, No:200810071128.1, Authorization Time: 01/27/2010
[10]Pingping Chen, **Lin Wang**, Dongfu Xie, One Kind 5 Bits of Quantified Methods Available for Decoding of LDPC Codes, No. 201010186626.8, Authorization Time: 05/09/2012.
[11]Long Kong, Zhexin Xu, Shuai Gong, **Lin Wang,** Weikai Xu, A Traffic Flow Measurement Device and Method based on Ultra-Wideband Chaos Pulses, No: 201110296698.2, Authorization Time: 25/12/2013.
[12]Weikai Xu, **Lin Wang**, Yong Li, Gang Chen, A code-shifted Differential Chaos Shift Keying Modulation and Demodulation Method, No: 201010527234.3, Authorization Time: 10/10/2012.
[13] **Lin Wang,** Yin You, Min Xiao, Rate Compatible Coding of MET-LDPC Codes, No.201110094780.7, Authorization Time: 17/04/2013.

5. Professional or IEEE Honors and Services

Honors:
Final Reviewers of National Natural Award in China in 2019, 2020
Member of Executive Council of Chinese Institute of Electronics since 2019(Total members over 100,000)
Senior Member,IEEE Society since 2009: IT, CAS, COMM.,Member since 2003; Student member since 1999
Examplary Reviewer for IEEE Trans.on Communiications in 2015(＜2%)
Reviewer for Mathematical Reviews in AMS since 2013
Reviewer for the promotion of Professor in Electrical and Computer Engineering, University of Victoria, Canada in 2012
Yici He Chair ProfessorAward in Xiamen University, 2016
Bendong Sa Chair ProfessorAward in Xiamen University, 2012
Best Paper Award, ICCCAS 2005/IEEE, 23-27th,May, 2005, Hong Kong, China,
New Century Excellent Talents, Ministry of Education in China, 2005
Key Talents in Xiamen CityGovernment, 2004

Excellent Teacher Award by Chonqing City Government, 2003

A. Editorship

Editor, Acta Electronica Sinica, Jan,2011 to present (Top Journals in China)

Editor, Chinese Journal of Electronics, Jan. 2011 to present

Editor, Journal of Electronics and Information Technology, Jan.2014 to Dec.2022 (Top Journals in China)

Guest Associate Editor（GAE），International Journal of Bifurcation and Chaos (IJBC), 1st Jan., 2010 to 31st Dec., 2011

B. Service for Conferences as Organizers or Members

General Co-Chairs, ISCIT 2022, 23-25th, Sept. 2022, Xian, China

General Co-Chairs, ISMICT 2021, 14-16th, April, 2021,Xiamen, China

TPC member, WTS 2021/IEEE,

TPC member, Globecomm 2020 WC/IEEE, Dec 14-16th, 2020, Taibei, Taiwan

TPC member, WTS 2020/IEEE,

TPC member, BODYNETS 2020, Oct.2-3, 2020,

TPC member, BODYNETS 2019, Oct.2-3, 2019, Florence, Italy

TPC member, Globecomm 2019 WC/IEEE,Dec 9-13, 2019Waikoloa, HI,USA

TPC member, WTS 2019/IEEE, April 9-13, 2019, New York, USA

TPC member, Globecomm2018 WC/IEEE, Dec.9-13th, 2018, Abu Dhabi, United Arab Emirates

TPC member, PIMRC2017/IEEE, Oct.04-07th , Monteal, Canada

Trackchair on Cognitive Radio, VTC 2017 Spring/IEEE, 3-7th, June, Australia

TPC member, ISMICT2017/IEEE, Feb.6-8th, Lisbon, Portugal

TPC member, WPMC2016/IEEE, Nov.13-16th, Shenzhen, China

TPC member, PIMRC2016/IEEE, Sept.04th to Sept.07th , Valencia, Spanish

TPC member, WCICA2016/IEEE, June 12-17th, 2016, Guilin, China

TPC member, PIMRC2015/IEEE, Aug.30th to Sept.2nd , Hong Kong

TPC member, ICUWB2015/IEEE, Oct.4-7th, Montreal, Canada

TPC member, ISMICT2015/IEEE, Mar.24-26th, Kamakura,Japan

TPC member, IUCC2014/IEEE, Dec.19-21th, Chengdu, China

TP Co-Chairs, ISCIT2014/IEEE, Sept 24-26th, 2014, Incheon, Korea

TPC member of PIMRC2014/IEEE, 2-5th, Sept., 2014, Washington, DC, USA

TPC member of ICUWB/IEEE, 1-3rd, Sept., 2014, Paris, France

TPC member of WPMC2014/IEEE, 7-10th, Sept., 2014, Syndey, Australia

TPC member of ISMICT2014/IEEE, 2-4th, April，2014, Florence, Italy

TPC member of ICUWB 2013/IEEE, 15-18th, Sept., 2013, Syndey, Australia

Publicity Chairs, ISCIT 2013/IEEE, 4-6th, Sept., 2013, Samui Island, Thailand

General Co-Chairs, ISNAS 2012/IEEE, June28-30, 2012, Xiamen, China

Session Chair, ISCIT2012/IEEE, Oct2-5, 2012, Gold Coast, Australia

TPC member, 13th IEEE/ICCT, Sept.25-28, 2011, Jinan, Shandong, China

TPC member, ISPACS 2010/IEEE, Sept.23 to 25, 2010, Chengdu, China

TPC member, 10th CIT/IEEE, 29th June to 1st July, 2010, Bradford, UK

TPC Member (ISCIT/IEEE, Sep.28-30, 2009, Incheon, Korea)

TPC Co-Chair(ICCyberC 2009/IEEE, Oct.10-12th, 2009, Zhang JiaJie, China)
General Co-Chairs of 12th North-East Asia Symposium on Nano, Information Technology and Reliability, May 23-24th, 2008, Xiamen University, China (IEEE Seoul Section)
TPC Co-Chair (ICCCAS 2008/IEEE, May 25-27, 2008, Xiamen, China)
TPC Member (ICCCAS 2007/IEEE, July 11-13, 2007, Fukuoka, Japan)
TPC Member (ICCCAS 2006/IEEE, June 25-28, 2006, Guilin, China)
Session Chair (ISPACS 2007/IEEE, Nov.8-Dec.1,2007, Xiamen, China)
Session Chair (ICSP 2006/IEEE, Nov.16-20, 2006, Guilin, China)
Session Chair (MAPE 2005/IEEE, Aug.8-12, 2005,Beijing, China)
Session Chair (ICCCAS 2004/IEEE, June 27-29, 2004,Chengdu, China)
Session Chair (ISPACS 2004/IEEE, Dec.18-19, 2004, Seoul, Korea)

C. Invited Talks in Conferences and by Universities(Selected)

Keynote Speakers

[1]31th Symposium of Circuits and Systems Society of China Institute of Electronics, Xi'an, China
Title: Transmission Theory for IoT based MDCSK over Nonstationary Channels
Time: 7th, Nov.,2020
[2]2019 Symposium of Xiamen Institute of Communications, Xiamen, China
Title: Optimizing and Designing of Robust Data Link Based on MDCSK over Non-Stationary Channels for IoT with Band-limited Environments
Time: 26th, Dec., 2019
[3]2019 Symposium of Chaotic Security Communication of China Cryptography Society, Nanjing, China
Title: Optimizing and Designing of Robust Data Link Based on MDCSK over Non-Stationary Channels for IoT with Band-limited Environments
Time: 7th, Oct, 2019
[4]2019 Conference on Intelligent Computing, Communication & Applied Technologies (CICCAT 2019), 22-24th, Dec, 2019, Shanghai, China
Title: Global Optimizing Design for JSCC Based on DP LDPC Codes
[5]The 14th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2018)，Sept.18-20, 2018, Chongqing, China
Title: Optimal design of Joint Source-Channel Coding Based on DP-LDPC Codes
[6] The 23th Symposium of Chinese Information Theory, Nov.3-6, 2016, Xiamen, China
Title：Progress of Joint Source-Channel Coding Based on DP-LDPC Codes
[7]The 9th Symposium of Next Generation Mobile Communications Between China and Japan, Nov.9-10, 2015, Xiamen, China
Title：Progress on Signal Design and Coding of Short Range Communication for WNS

Invited Talks

[8]School of Mathematics and Computing, Zhejiang Normal University, Jinghua, China
Title: Global Optimizing Design for JSCC Based on DP LDPC Codes

Time:1st, Nov., 2019
[9]School of Information Engineering, Changan University, Xian, China
Title: Global Optimizing Design for JSCC Based on DP LDPC Codes
Time: 10th, Oct., 2019
[10]ECE and Computer Science in University of Auckland, New Zealand
Title: Optimizing Design of JSCCC Based on DP-LDPC Codes
Title: Optimizing and Designing of Robust Data Link Based on MDCSK over Non-Stationary Channels for IoT with Band-limited Environments
Time: 2-3nd, Sept., 2019
[11]School of Electronics and Information Engineering, SUN YAT-SEN University
Title：Optimal design of Joint Source-Channel Coding Based on DP-LDPC Codes
Time：23rd, Nov.,2018
[12] School of Electronics and Information Engineering, Zhejiang University
Title：New Trend of 6GPHYDesign：SingleChipDesign
Time：3rd, Nov., 2018
[13] School of Electronics and Information Engineering, South China University of Technology
Title：Optimal design of Joint Source-Channel Coding Based on DP-LDPC Codes
Time：9th, July, 2018
[14] Dept. of Electrical and Computer Engineering，University of Utah, USA
Title：Chaotic Transmission and Joint Source-Channel Coding
Time：2nd, May, 2017
[15] School of Electronics and Information Engineering, SUN YAT-SEN University
Title：Signal Design and Coding of Short Range Communication for Enabling Wireless Communications
Time：14th, Jan., 2016
[16]Dept. of Electrical and Computer Engineering, TexasA&MUniversity, USA
Title：Progress in Source-channel Coding Based on DP_LDPC Codes
Time：16th, Dec., 2015
[17]School of Computing, Engineering and Mathematics, University of Western Sydney, Australia
Title：The New Progress on Joint Source and Channel Coding Based on Protogragh Double LDPC Codes
Time：4th,Sept., 2014
[18]School of Communication Engineerin, University of Electronic Science and Technology
Title：Chaotic Modulation Technique for UWB over E-Healthcare Environments
Time：21st, Mar., 2014
[19]School of Computing, Engineering and Mathematics, University of Western Sydney, Australia
Title：Wireless Communication for E-Healthcare Environments,
Time：29th, Sept., 2012
[20]Shanghai Key Lab on Beidou and Navigation, Shanghai JiaotongUniversity
Title：Optimizing Design of Protograph LDPC Codes over Partial Response Channel

Time：26th, Nov., 2012
[21]50 Anniversary Symposium of Electronics Information Engineering Schoo, Beihang University
Title：Optimizing Design of Protograph LDPC Codes over Non-Standard Channels
Time：9th, Oct., 2012
[22]Symposium of Information Technology, Malta University
Title：Robust Wireless Transmitting Techniques over E-Healthcare Environments
Time：22th, Mar., 2012

Ph.D Dissertation Evaluation(Selected)

[1] Macquarie University, 2014
[2] Indian Institute of Technology Guwahati, 2015
[3] Zhejiang University, 2010, 2013,2018, 2017
[4] Shanghai Jiaotong University, 2017,2018
[5] Shandong University, 2012, 2015
[6] Sichuan University, 2008,2009,2010.2011,2012
[7] Chongqing University, 2008,2009,2010,2012,2014

Promotion and Award Evaluation

[1] Professor Evaluation for Dept. of Electrical and Computer Engineering, University of Victory, Canada, 2012
[2] National Awards Evaluation for National Science Awards Committee in China since 2013

6. Current Research Fields and Group

Interests:

Algorithm Designs and their Digital Implementations for whole physical-layer with low power, low cost, low delay, and high reliable transmission based on Post Shannon Communication System Theory
Information Theory & Coding (including Compressed Sensing, Lossy Source Codes, Lossy/Lossless Joint Source-Channel Coding/Decoding, Channel Coding/Decoding, Network Coding) and their application to Audio/Speech/Imaging Processing/Video Processing/Multimedia Communications, Chaotic Modulations & Its Coded Modulations, as well as joint Detection over IoT with wideband and band-limited under wireless and wired environments (IoT/WBAN/mMTC, VLC/PLC, UAVs, Underwater Acoustic Communications)

Group:

Director of Lab of Wideband Wireless Communication Systems (WWCS): **Lin Wang**
Member: Weikai Xu (Associate Professor), Shaohua Hong (Associate Professor)
Postdoc: Dr. Tingting Fan during 2019-2021
Ph.D students (6): Sanya Liu(2021), Meiyuan Miao(2021), Zhiping Xu(2021), Dan Song (2022), Xiangming Cai (2023), Yijie Lv (2024)
MS students (20 total)
Ph.D Dissertations(advisor):

[1]Weikai Xu: Key Technology in Differential Chaos Shift Keying, 2011
Current Position: Associate Professor, Xiamen University
[2]Min Xiao: Design for Rate-compatible LDPC Codes, 2011
Current Position: Associate Professor, Xiamen Institute of Technology
[3]Dongfu Xie: Algorithm and Hardware Implementation of Channel Coding for Very Low BER Test, 2011
Current Position: Associate Professor，Jiaxing University
[4]Guangfu Wu: Binary Linear Codes Based on Matroid Theory, 2012
Current Position: Associate Professor, Jiangxi University of Technology
[5]Zhexin Xu: Analysis, Design and Implementation of Delay Line for Transmitted-Reference Ultra-Wideband Systems, 2012
Current Position: Associate Professor，Fujian Normal University
[6]Yong Li: Algebra Soft Decoding of QR Codes and Linear Program Decoding for MIMO OFDM, 2012
Current position: Associate Professor, Chongqing University
[7]Pingping Chen: Key Technology of Chaotic Modulations and Codes for Short Range Communications, 2012
Current position: Professor in Fuzhou University
[8]Shaoyuan Chen: Synchronization Algorithm and Multi Antenna Technique for Internet of Things, 2013
Current position: Senior Engineer, Huawei Group in Shanghai
[9]Yi Fang: Optimizing Design and Analysis of Protograph LDPC Codes, 2013
Current position: Professor/Associate Dean, Guangdong University of Technology
[10]Guofa Cai: Transmission Characteristics of Differential Chaos Shift Keying Communication Systems, 2015
Current position: Associate Professor, Guangdong University of Technology
[11]Yibo Lyu: Research on Key Techniques of Digital Iterative Receiver for M-ary Differential Chaos Shift Keying Modulation Systems, 2016
Current Position: Senior Engineer, Huawei Group in Shenzhen
[12]Wei Hu：Capacity of DCSK Modulation System and Its Spatial Modulation Communication Scheme, 2017
Current Position:Associate Principal Engineer, Dept. of Strategy, Shanghai Institute of Space
[13]Tingting Huang：Design and Analysis of DCSKCommunication withHigh Throughput,2017
Current postion: Assistant Professor, Huaqiao University
[14]Qiwang Chen：Optimizing Rule and Analysis for Joint Source-Channel Coding over Different Coding Channels,2018
Current position:Assistant Professor, Ningbo University
[15]Chen Chen：Match Principle in Joint Source-Channel Coding Transmission Systems: Design and Analysis,2018
Current Position: Assistant Professor, Huaqiao University

[16]Guixian Cheng: Carrier Index Differential Chaos Shift Keying Modulation and the Corresponding Simultaneous Wireless Information and Power Transfer Technology, 2019

Current Position: Assistant Professor, Guizhou Normal University

MS Thesis over 100

BS Thesis over 80

Teaching Courses:

[1] Information Theory, Senior Course for Graduate Students(Ph.D&MS)

[2] Random Processing, Graduate Students (MS)

[3] Probability Statistics (BS)

[4] Linear Algebra(BS)

[5] Signals and Systems(BS)

[6] Principle of Communication (MS and BS)

[7] Error Control Codes(MS)

7. **Leadership in Research and Development Projects**

Completed projects hosted by Prof.Lin Wang

[1]NSFC: The physical-layer key techniques for medical image transmissions based on UWB system, No.61271241, 2013.1-2016.12, RMB760,000 (PI: Prof. Lin Wang)

[2]European Union-FP7: Cognitive Network Enabled Transnational Proactive Healthcare, No.294923, 2012.1-2016.12, RMB450,000 (CoNHealth, PI: Prof. Lin Wang)

[3]National Science Foundation of China (NSFC):Optimizing Design and Analysis of Multi-edge LDPC Codes over Perpendicular Magnetic Record Channels, 2010.1-2012.12, RMB310,000 (PI:Prof. Lin Wang);

[4]Shenzhen City Science and Technology Key Project: Key Technology on Traffic Measure Systems Based on Chaotic UWB Pulse, 2011.3-2015.3, RMB 200,000(PI: Prof. Lin Wang)

[5] Chongqing City Science and Technology Key Project: Models for Traffic Measure Systems Based on Chaotic UWB Pulse, 2009.9-2011.8, RMB 100,000(PI: Prof. Lin Wang)

[6] National Science Foundation (NSF) of Fujian Province: Design and Analysis for Rate-Compatible Multi Edge LDPC Code, 2009.1-2011.12, RMB70,000 (PI: Prof. Lin Wang)

[7]Fujian Province Science and Technology Key Project: Non-binary LDPC Coding and Decoding for Satellite Communications and Their Implementations, 2006.7-2008.12, RMB 150,000(PI.Pro.Lin Wang)

[8] Strategic Scientist Plan (New Century Excellent Talents) Project from Ministry of Educations in China:Non-binary LDPC Codes Used Channel Coding and Decoding for Next Generation Satellite Communications,2005.1-2007.12,RMB500,000(PI: Prof. Lin Wang)

[9]Supportted by Gallop Company in Chongqing: Design and FPGA Imlementation for Structured LDPC Codes for wireless communucations, 2007.3-20010.3, RMB

200,000(PI: Prof.Lin Wang)
[10]Supportted by City University of Hong Kong/Tsqinghua University: Chaotic Modulations and implementation/IDMA air access, 2004.1-2006.12/2007.1-2009.12, RMB150,000(PI: Prof. Lin Wang)
[11]NSFC: Optimizing Design and Analysis for Wovern Codes as Turbo-like Codes, 2003.1-2005.12, RMB220,000(PI: Prof. Lin Wang)
[12]Strategic Scientist Plan (National 863) Project from Ministry of Science and Technology in China: LDPC Codes for Third Generation Mobile Communications, 2001.12-2005.4, RMB300,000(PI: Prof. Lin Wang)
[13] Future Strategic Scientist Plan (Key R&D) Project from Ministry of Industry and Information in China: Design of Spreading Spectrum Sequences for the Mobile of Third Generation, 1998.4-2001.4, RMB800,000(PI: Lin Wang)

Investigating projects hosted by Prof. Lin Wang
[1]NSFC: Chaotic Spatial Modulation UWB Communication System over Multi-Relay Transmission;, No.61671395, 2017.1-2020.12, RMB 580,000 (PI: Prof. Lin Wang)