

CURRICULUM VITAE

CONTACT INFORMATION

Xiaomin Ma, Ph.D.
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EDUCATION

- Ph.D. (10/1999), Signal and Information Processing, Beijing University of Posts and Telecommunications, Beijing, China.
- M.Sc. (01/1989), Communication and Electronic System, Beijing University of Aerospace and Aeronautics, Beijing, China.
- B.Sc. (07/1984), Electrical Engineering, Anhui University, Hefei, China.

POSTDOCTORAL TRAINING

Postdoctoral Research Associate/Motorola Consultant

Center for Advanced Computing and Communications,
Dept. of Electrical and Computer Engineering,
Duke University, Durham, NC 27708, USA

Aug. 2000-Jan. 2003

APPOINTMENTS

Associate Professor, Tenured

Engineering & Physics Department,
Oral Roberts University, Tulsa, OK 74171, USA

Aug. 2009-

Associate Professor, Tenure-track

Engineering & Physics Department,
Oral Roberts University, Tulsa, OK 74171, USA

Aug. 2007-May 2009

Assistant Professor, Tenure-track

Engineering & Physics Department,
Oral Roberts University, Tulsa, OK 74171, USA

Jan. 2003-May 2007

Senior Researcher

Wireless branch,
Huawei Communication Technology Corporation, China

Oct. 1999-Aug. 2000

Assistant Professor/Associate Professor

Electrical Engineering Group
Dept. of Automation Department
Petroleum University 257061, China

Sept. 1991-July 1996

COURSES TAUGHT

- Computer Networks and Communications
- Artificial Intelligence
- Digital Logic Design
- Computer Architecture
- Design with standard components
- Microprocessor System Design
- Computer Data Acquisition Systems
- Introduction to Engineering
- High Frequency Electrical circuits
- Signal and Systems
- Digital Signal Processing

RESEARCH INTERESTS AND EXPERTISE

- MAC layer and physical layer of Ad-Hoc wireless mobile networks or wireless sensor networks
- Performance, reliability and performability modeling and evaluation of computer and communication networks
- Computational Intelligence and its applications
- Digital logic circuit, Programmable logic device, and FPGA
- Microprocessors, Computer architecture, and computer data acquisition system
- Information theoretic cryptography and Security
- Signal processing & Pattern recognition

MAJOR GRANTS

- NSF NeTS: Collaborative Research (with Professor Kishor Trivedi at Duke University as Co-PI): Analytic Modeling and Enhancement of Vehicular Ad Hoc Networks for Safety Critical Applications, \$341,646, Aug. 2010~July, 2013, PI.
- Vehicular Ad Hoc Wireless Communication System, Oklahoma NSF EPSCoR, \$10,000, June 2007, Sub-contract PI.
- Analysis of MAC Layer Protocols for Inter-vehicle Communications, Intramural grant, Oral Roberts University, \$3400, 2005~2006, PI.
- Application of Computational Intelligence to Modern Code, Chinese National Science Foundation (NSF), 99,000 Chinese Yuan, 1997~1999, Co-PI.

INVOLVED RESEARCH PROJECTS

A. Oral Roberts University

- NSF: Analytic Modeling and Enhancement of Vehicular Ad Hoc Networks for Safety Critical Applications, Aug. 2010, PI.
- Vehicular ad hoc wireless communication system, Oklahoma NSF EPSCoR, June, 2007, Sub-contract PI.
- Analysis of MAC layer protocols for Inter-vehicle communications, Intramural grant, Oral Roberts University, 2005~2006, PI.

- Cross layer design of inter-vehicle communications, NSF-REU (Research Experiences for Undergraduates), University of Oklahoma.

B. Duke University

- The availability, capacity and performance (ACP) of packet voice over packet-oriented wireless network, grant from Motorola, Duke University.
- MURI: Fault-Tolerant real-time network protocols, grant from AFOSR, Duke University: fault-tolerance design and optimization in wireless voice-data systems.
- MURI: Reliability modeling of service failures in complex dynamic systems, grant from ARO, Duke University.

C. Beijing University of Posts and Telecommunications

- Application of computational intelligence to modern code, supported by Chinese National Science Foundation (NSF), BUPT, Co-PI.
- Implementation of base station of software radio, supported by foundation of Ministry of Posts and Telecommunications, BUPT.
- Key techniques of signal processing and coding in software radio system, supported by foundation of Ministry of Posts and Telecommunications, BUPT.

AWARDS AND HONORS

- Scholar of the Year for 2010-2011, Oral Roberts University, 2011.
- Alumni Faculty Recognition Award for Outstanding Research, Oral Roberts University, Nov. 2008.
- Senior Member of the **IEEE** (Communication, Signal Processing, and Information Theory Societies), Aug. 2008.
- Research Opportunity Award (ROA) for regional university faculty, Oklahoma Experimental Program to Stimulate Competitive Research (EPSCoR), 2007.
- Oklahoma Society of Professional Engineers (OSPE) Outstanding Achievement Award, Advisor of Senior Project “Collision Prevention”, March, 2007.
- Outstanding Faculty, Engineering & Physics Department, Oral Roberts University, 2006-2007.
- Selected in Who’s Who in America 61st Edition, 2007, 62nd Edition, 2008.
- Scholar of the Year for 2004-2005, Oral Roberts University, 2005.
- Award for distinguished Ph. D. dissertation, Beijing University of Posts and Telecommunications, China, 1999.
- Award for outstanding paper published in Journal of Petroleum University, China, 1998.
- Excellent Teaching Award in course: Signal & System, Petroleum University, China, 1995.

SYNERGISTIC ACTIVITIES

- Adjunct Faculty, Ph. D. Dissertation Committee Member in Electrical and Computer Engineering at University of Oklahoma, Sept. 2010~ Sept. 2012.
- Thesis Committee Member for Masters Degree in Electrical Engineering at University of Tulsa, April 2010.

- Chair of Tenure Faculty Committee in School of Science & Engineering at Oral Roberts University, 2009-2010
- Technical Program Committee (TPC) member for the Wireless Communications Symposium (WCS) at **IEEE GLOBECOM** 2009
- Technical Program Committee (TPC) member for The 3rd Workshop on Next Generation Wireless Networks 2008
- Technical Program Committee (TPC) member for **IEEE** International Symposium on Wireless Quality-of-Service, part of WirelessCom2005 Conference
- Member of **IEEE** ComSoc Radio Communications Committee (RCC)
- Reviewer: Reviewed papers for the following journals and conferences: IEEE/ACM Trans. on Networking; ACM Wireless Networks; IEEE Trans. on Dependable and Secure Computing; IEEE Trans. on Vehicular Technology; IEEE Trans. on Wireless Communications; IEEE Communication Letters; Computer Networks; Wireless Communications and Mobile Computing; Performance Evaluation; IEEE Trans. on Neural Networks; IEEE Symposium on Reliable Distributed Systems (IEEE SRDS 2002); Internet Performance and Dependability Symposium (IPDS 2002); The 11th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of computer and Telecommunication Systems (2003); The 28th International Computer Software and Applications Conference (2004); IEEE Intelligent Transportation System Conference (ITSC05) (2005); IEEE International Symposium on WirelessCom2005 (2005); IEEE International Symposium on Software Reliability Engineering (ISSRE 2005).

US PATENT

Methods and Systems for Improving Utilization of Traffic Channel in a Mobile Communications Network, US 7,099,672, **Xiaomin Ma**, Yun Liu, and K. S. Trivedi, filed by Patent Office of Duke University in February 6, 2002; granted on August 29, 2006.

SELECTED ACADEMIC PUBLICATIONS

A. Journal Papers

1. **Xiaomin Ma**, "On the Reliability and Performance of Real-Time One-Hop Broadcast MANETs", *ACM/Baltzer Wireless Networks*, accepted, May 2011.
2. **Xiaomin Ma**, Xiaoyan Yin, and Kishor Trivedi, "On the Reliability of Safety Applications in VANETs", Invited paper, *International Journal of Performability Engineering Special Issue on Dependability of Wireless Systems and Networks*, May/July 2011.
3. X. Chen, H. Refai, and **Xiaomin Ma**, On the enhancements to IEEE 802.11 MAC and their suitability for safety-critical applications in VANET, *Wireless Communications and Mobile Computing*, Wiley10(9), 1253-1269, Spt. 2010. DOI: 10.1002/wcm.674.
4. **Xiaomin Ma**, and H. Refai, Analysis of sliding frame R-ALOHA protocol for Inter-Vehicle communications. *ACM/Baltzer Wireless Networks*, 15(8), 1102-1112, Oct. 2009. doi: 10.1007/s11276-008-0105-6.
5. **Xiaomin Ma**, X. Chen, and H. Refai, Performance and reliability of DSRC vehicular broadcast ad hoc networks for highway safety applications, *EURASIP Journal on Wireless Communications and Networking*, Special Issue on Wireless Access in Vehicular Environments, V. 2009 (2009), doi:10.1155/2009/969164.

6. **Xiaomin Ma** and X. Chen, Performance analysis of IEEE 802.11 broadcast scheme in ad hoc wireless LANs, *IEEE Transactions on Vehicular Technology*, 57(6), 3757-3768, Nov. 2008.
7. **Xiaomin Ma** and X. Chen, Saturation performance of IEEE 802.11 broadcast networks, *IEEE Communications Letters*, 11(8), 686-688, August, 2007.
8. **Xiaomin Ma**, Transient solutions of sliding frame R-ALOHA for real-time Ad Hoc wireless networks in fading environment, *IEEE Communications Letters*. 11(4), 354-356, April 2007.
9. **Xiaomin Ma**, Yun Liu, and Kishor S. Trivedi, Design and analysis of a new soft handoff scheme for CDMA cellular system. *IEEE Transactions on Vehicular Technology*, 55(5), September 2006.
10. **Xiaomin Ma**, Yonghuan Cao, Yun Liu, and Kishor S. Trivedi, Modeling and performance analysis for soft handoff schemes in CDMA cellular systems. *IEEE Transactions on Vehicular Technology*, 55(2), March 2006.
11. Zhaozhi Zhang, **Xiaomin Ma**, and Yixian Yang, Bounds on the number of hidden neurons in three-layer binary neural networks, *Neural Networks*, Elsevier Science, 16(7), 2003.
12. Kishor S. Trivedi, **Xiaomin Ma**, and S. Dharmaraja, Performability modeling of wireless communication systems, *International Journal of Communication Systems*, Wiley, 16(6), 561-577, Aug. 2003.
13. Kishor S. Trivedi, S. Dharmaraja, and **Xiaomin Ma**, Analytic modeling of handoffs in wireless cellular networks, *Information Sciences*, Elsevier Science, 148(1-4) 155-166, Dec. 2002.
14. Zhaozhi Zhang, **Xiaomin Ma**, and Yixian Yang, A unified method to construct neural network decoders for arbitrary codes and decoding rules, *Discrete Mathematics*, Elsevier Science, 238(2001) 171-181, 2001.
15. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, Boolean neural network design using set covering in hamming geometrical space, *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Science*, Vol. E82A, No.10, October 1999.
16. **Xiaomin Ma**, and Yi Xian Yang, Optimal design of FIR digital filter using genetic algorithm, *Journal of China Universities of Posts and Telecommunications*, 5(1), 12-15, 1998.
17. **Xiaomin Ma**, Inverse identification and closed-loop control of dynamic systems using neural networks, *Control Theory and Application*, 14(6), 836-841, 1997.
18. **Xiaomin Ma**, Yixian Yang, and Zhang Zhaozhi, An information transmission system based on stochastic neural network, *Journal of China Institute of Communications* 23(4), 42-49, 2002.
19. Ziping Hu, Ping Cui, **Xiaomin Ma**, A neural network learning algorithm for Boolean logic design, *Journal of Petroleum University*, 25(3), 2001.
20. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, A new framework and some results for threshold function, *Chinese Journal of Computers*, 23(3), 225-230, 2000.
21. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, Nonlinear shift register synthesis based on binary neural network, *Acta Electronic Sinica*, 28(1), 2000.
22. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, A new learning algorithm of binary neural network used for optimum design of Boolean function, *Acta Electronic Sinica*, 27(12), 1999.
23. **Xiaomin Ma**, Yi Xian Yang, Zhang Zhaozhi, and Wu Weiling, An efficient algorithm for Boolean neural network, *Journal of China Institute of Communications*, 20(12), 1999.
24. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, Research on the learning algorithm of binary neural network, *Chinese Journal of Computers*, 22(9), 931-935, 1999.

25. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, Design of block code decoders based on feedforward multilayer neural network, *Journal of China Institute of Communications*, 20(6), 1999.
26. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, A neural network for decoding of nonlinear codes, *Journal of Electronics*, 20(6), 1998.
27. **Xiaomin Ma**, Niu Xinxi, and Cheng Qingbiao, Data acquisition technology in software radio, *Telecommunications Science*, 14(5), 5-8, 1998.
28. **Xiaomin Ma**, and Yi Xian Yang, Neural network learning algorithm based on direction of inner product and its application, *Journal of Beijing University of Posts and Telecommunications*, 21(4), 1998.
29. **Xiaomin Ma**, and Hu Ziping, Design of digital logic using neural network, *Journal of Circuits and Systems*, 3(3), 51-58, 1998.
30. **Xiaomin Ma**, Yi Xian Yang, and Zhang Zhaozhi, Decoding a kind of linear block code using neural network, *Journal of Beijing University of Posts and Telecommunications*, 21(2), 46-50, 1998.
31. Zhang Zhaozhi, **Xiaomin Ma**, and Yi Xian Yang, Recent development and research problems of information theoretic cryptography, *Acta Electronic Sinica*, 26(7), 9-18, 1998.
32. **Xiaomin Ma**, Identification and adaptive control of plant with pure time delay using neural network, *Journal of Petroleum University*, 22(5), 1998.
33. **Xiaomin Ma**, and Yang Yixian, Inverse model identification and on-line control based on recurrent neural network, *Journal of Petroleum University*, 21(4), 78-82, 1997.
34. **Xiaomin Ma**, and Pang Jinming, Auxiliary design of digital filter using genetic algorithm, *Journal of Petroleum University*, 21(1), 79-51, 1997.
35. **Xiaomin Ma**, and Zhou Manglai, Neural network learning algorithm suitable for nonlinear system identification, *Journal of Petroleum University*, 20(1), 89-93, 1996.
36. **Xiaomin Ma**, A learning algorithm based on U-D factorization Kalman filter (in Chinese), *Signal Processing*, 11(4), 276-281, 1995.
37. **Xiaomin Ma**, and Cui Ping, Design of apparatus for experiment of data acquisition system (in Chinese), *Research and Exploration of Laboratory*, 4(2), 1994.
38. **Xiaomin Ma**, Analysis of image acquisition system by micro-computer (in Chinese), *Shandong Electronics*, 10(1), 12-14, 1994.
39. **Xiaomin Ma**, and Bai Song, Measurement of electrical parameters of three-phase motor using MCS-51 single chip computer (in Chinese), *Journal of Petroleum University*, 22(5), 84-87, 1991.
40. **Xiaomin Ma**, Measurement of network frequency, phase difference, and power factor (in Chinese), *Electrical Measurement and Instrumentation*, 27(5), 32-34, 1990.

B. Conference Papers

1. **Xiaomin Ma**, Xiaoyan Yin, and Kishor Trivedi, A Robust Broadcast Scheme for VANET One-hop Emergency Services, Accepted by *4th IEEE International Symposium on Wireless Vehicular Communications: WIVEC2011*, 5-6 September 2011, San Francisco.
2. **Xiaomin Ma**, H. Refai, Analytical Model for Broadcast Packet Reception Rates in Two-Dimensional MANETs, Accepted by *IEEE International Conference on Communications (ICC'11)*, June 2011.
3. Xiaoyan Yin, **Xiaomin Ma**, and Kishor Trivedi, Performance Evaluation for DSRC Vehicular Safety Communication: A Semi-Markov Process Approach, *The Fourth International Conference on Communication Theory, Reliability, and Quality of Service*, Hungary, April 2011.

4. **Xiaomin Ma**, J. Zhang, and T. Wu, Reconsider Broadcast Packet Reception Rates in One-Dimensional MANETs, *IEEE GLOBECOM* 10, Dec. 6-10, 2010, Miami.
5. N. Jiang, Z. Zhang, Jian Wang, **Xiaomin Ma**, The upper bound on the number of hidden neurons in multi-valued multi-threshold neural networks, *2009 International workshop on Intelligent Systems and Applications (ISA-09)*, May 23-24, 2009.
6. N. Jiang, Z. Zhang, **Xiaomin Ma**, The lower bound on the number of hidden neurons in multi-valued multi-threshold neural networks, *IEEE International Symposium on Intelligent Information Technology Application (IITA 2008)*, December 21-22 Shanghai, 2008.
7. **Xiaomin Ma**, Xianbo Chen, and Hazem Refai, On the broadcast packet reception rates in one-dimensional MANETs, *IEEE GLOBECOM*, Nov. 30-Dec. 4, New Orleans, 2008.
8. Nan Jiang, Yixian Yang, **Xiaomin Ma**, Zhaozhi Zhang, Analysis of nonseparable property of multi-valued multi-threshold neuron, *IEEE World Congress on Computational Intelligence*, Hong Kong, June 1-6, 2008.
9. Xianbo Chen, Hazem Refai, and **Xiaomin Ma**, SDMA: On the suitability for VANET, *IEEE 3rd International Conference on Information and Communication Technologies*, Damascus, Syria, April 7-11, 2008.
10. Xianbo Chen, Hazem Refai, and **Xiaomin Ma**, A Quantitative approach to evaluate DSRC Highway Inter-vehicle Safety Communication, *IEEE GLOBECOM*, Nov. 26-30, 2007, Washington D.C.
11. **Xiaomin Ma**, Xianbo Chen, and Hazem Refai, Unsaturated performance of IEEE 802.11 Broadcast Service in vehicle-to-vehicle networks, *IEEE Vehicular Technology Conference*, Fall, Baltimore, Sept. 30~Oct. 3, 2007.
12. Xianbo Chen, Hazem Refai, and **Xiaomin Ma**, Saturation performance of IEEE 802.11 broadcast scheme in ad hoc wireless LANs, *IEEE Vehicular Technology Conference*, Fall, Baltimore, Sept. 30~Oct. 3, 2007.
13. Jian Wang, Yixian Yang, Nan Jiang, Zhaozhi Zhang, and **Xiaomin Ma**, Using three layer neural networks to compute discrete real functions, *The 3rd International Conference on Natural Computation (ICNC'07)*, Haikou, China, August 24~30, 2007.
14. **Xiaomin Ma** and Xianbo Chen, Delay and Broadcast Reception Rates of Highway Safety Applications in Vehicular Ad Hoc Networks, *IEEE INFOCOM2007 workshop on Mobile Networks for Vehicular Environments*, Anchorage, Alaska, May 6~12, 2007.
15. Xianbo Chen, Hazem Refai, and **Xiaomin Ma**, Broadcasting Performance Comparison Among IVC MAC Protocol Candidates, invited paper, *IEEE Multi-conference on Systems and Control*, Singapore, Oct., 2007.
16. Xianbo Chen, Hazem Refai, and **Xiaomin Ma**, Impact of EIFS on IEEE 802.11 DCF performance, *4th International Symposium on Mechatronics and its Applications*, Sharjah, UAE, June 2007.
17. Nan Jiang, Yixian Yang, **Xiaomin Ma**, Zhaozhi Zhang, Using Three Layer Neural Network to Compute Multi-valued Functions, *International Symposium on Neural Networks*, Nanjing, China, June 2007.
18. **Xiaomin Ma**, Hazem Refai, and Xianbo Chen, Transient Analysis of Sliding Frame R-ALOHA for Real-time Ad Hoc Wireless Networks With Capture Effect. *IEEE Vehicular Technology Conference*, Montreal, Canada, Sept. 2006.
19. **Xiaomin Ma**, Hazem Refai, and Xianbo Chen, Analysis of Sliding Frame R-ALOHA For Real-time Ad Hoc Wireless Networks in a Fading Environment. *IEEE Vehicular Technology Conference*, Montreal, Canada, Sept. 2006.
20. **Xiaomin Ma**, P. Hrubik, H. Refai, and S. Yang, Capture effect on R-ALOHA protocol for inter-vehicle communications. *IEEE Vehicular Technology Conference*, Dallas, TX, Sept. 2005.

21. S. Yang, H. Refai, and **Xiaomin Ma**, CSMA-based inter-vehicle communication using distributed and polling coordination. *IEEE Intelligent Transportation System Conference*, Vienna, Austria, Sept. 13-16, 2005.
22. S. Yang, H. Refai, and **Xiaomin Ma**, Steady State Analysis of R-ALOHA System in Mobile Wireless Environment, *IEEE International Symposium on WirelessCom2005*, Sheraton Maui Resort, Kaanapali Beach, Maui, Hawaii, USA, June. 2005.
23. K. S. Trivedi, and **Xiaomin Ma**, *keynote paper*, Performability analysis of wireless cellular networks, *International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2002)*, Keynote, July, California, USA, 2002
24. K. S. Trivedi, D. Selvamuthu, and **Xiaomin Ma**, Analytic modeling of handoffs in wireless cellular networks *Proceedings of First Symposium on Photonics, Networking and Computing (PNC 2002)*, North Carolina, USA, pp. 1383-1392, March, 2002.
25. **Xiaomin Ma**, Y. Liu, K.S. Trivedi, Y. Ma, and J.J. Han, A new handoff scheme for decreasing both dropping calls and blocking calls in CDMA System, *IEEE EURONCON'2001, International Conference on Trends in Communications*, p 115-19 vol.1, July 2001.
26. **Xiaomin Ma**, Y. Liu, K.S. Trivedi, Y. Ma, and J.J. Han, A soft handoff scheme for improving utilization efficiency of traffic channels, *IEEE Int. Conf. on CSCC*, Greece, July 2001.
27. **Xiaomin Ma**, and Z. Zhang, Constructive learning of binary neural networks and its application to nonlinear shift register synthesis, *ICONIP2001*, June 2001.
28. Z. Zhang, **Xiaomin Ma**, Y. Yang, A universal decoder for arbitrary codes and decoding rules. *Third Shanghai International Conf. on Design Codes and Finite Geometries*, May 14~18, Shanghai, 1999.
29. Zhang Zhaozhi, **Xiaomin Ma**, and Yi Xian Yang, Application of stochastic multilayer perceptron for information transmission and event identification, *International Conference on NN and Brain*, Beijing, Oct. 27, 1998.
30. **Xiaomin Ma**, Feedback RBF neural network and its application. *IEEE International Conference on Neural Networks and Signal Processing*, Vol. 1, 144-147, Dec. 10-15, 1995.
31. **Xiaomin Ma**, Inverse modeling and closed-loop control of dynamic systems using neural networks, *IEEE International Conference on Neural Networks and Signal Processing*, Vol. 1, 87-90, Dec. 10-15, 1995.
32. Zhang Zhaozhi, **Xiaomin Ma**, and Yi Xian Yang, Information theory for continuous-value encryption systems and its application to chaotic cryptography (in Chinese), *CHINA CRYPTO 2000*, Science press.
33. Zhang Zhaozhi, **Xiaomin Ma**, and Yi Xian Yang, The construction and enumeration of linear separable function, *99 Chinese conference on neural network and signal processing*, Shantou, China.
34. Huilin Li, and **Xiaomin Ma**, New development of DSP and its applications on digital receiver, *Third Annual conference of Chinese Scientific Institution*, 1998.
35. Zhang Zhaozhi, **Xiaomin Ma**, Yi Xian Yang, Keynote paper, Recent development and problems of information theory cryptography (I) (II), *Annual Conference on Information Theory and Communication Theory*, Shenzhen, 1997.
36. Zhang Zhaozhi, **Xiaomin Ma**, Yi Xian Yang, A general system model for information transmission, *Proceeding of 1997 Chinese Congress on Neurocomputing Science(CCNS'97)*, 1997.
37. **Xiaomin Ma**, An on-line self-learning neural network based controller, *Proceeding of 1996 Conference on Theory and Applications of Neural Networks*, 697~701, 1996.

38. **Xiaomin Ma**, Zhou Manglai, Identification of nonlinear system based on neural network, *95Chinese Conference on Control*, 708-711, 1995.

C. Book Chapters

1. Nan Jiang, Yixian Yang, **Xiaomin Ma**, Zhaozhi Zhang, Using Three Layer Neural Network to Compute Multi-valued Functions, *Springer Lecture Notes in Computer Science*, Vol. 4493, pp. 1-8, 2007.
2. Shao Zhongwu, Chai Qingzhong, **Xiaomin Ma**, Data Acquisition System, Petroleum University Publishing House, 1994. ISBN 7-5636-1142-8/TP.70