

Yuguang “Michael” Fang, Ph.D

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Department of Electrical and Computer Engineering
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EDUCATION

- Ph.D in Electrical Engineering, majoring in Computer Networks and Communications, **Boston University**, Boston, Massachusetts, May 1997
 - *Ph.D Dissertation*: “Personal Communications Services (PCS) Networks: Modeling and Performance Analysis.”
- Ph.D in Systems and Control Engineering, **Case Western Reserve University**, Cleveland, Ohio, January 1994
 - *Ph.D Dissertation*: “Stability Analysis of Linear Control Systems with Uncertain Parameters.”
- M.S./B.S.. in Mathematics, **Qufu Normal University**, Shandong, PRC, July 1987

RESEARCH INTERESTS

- Wireless Networks and Mobile Computing, Mobile Ad Hoc Networks, Wireless Sensor Networks, Wireless Mesh Networks, Wireless Network Security, Wireless MAC, Mobility Management, Resource Management, Routing, Teletraffic Modeling and Analysis.

TEACHING INTERESTS

- Computer Networks, Computer Communications, Wireless Networks, Performance Evaluation of Communications Networks, High-speed Networks, Queueing Theory, and Network Security.

PROFESSIONAL EXPERIENCE

- **University of Florida Research Foundation Professor**, Department of Electrical and Computer Engineering, **University of Florida**, Gainesville, Florida, 2006–2009.
- **Professor**, Department of Electrical and Computer Engineering, **University of Florida**, Gainesville, Florida, August 2005–Present.
- **Associate Professor**, Department of Electrical and Computer Engineering, **University of Florida**, Gainesville, Florida, August 2003–August 2005.

- **Assistant Professor**, Department of Electrical and Computer Engineering, **University of Florida**, Gainesville, Florida, *June 2000–July 2003*.
- **Assistant Professor**, Department of Electrical and Computer Engineering, **New Jersey Institute of Technology**, Newark, New Jersey, *July 1998–May 2000*.
- **Visiting Assistant Professor**, Department of Electrical Engineering, Erik Jonsson School of Engineering and Computer Science, **The University of Texas at Dallas**, Richardson, Texas, *June 1997–August 1998*.
- **Research Assistant**, Department of Electrical and Computer Engineering, **Boston University**, *September 1995–May 1997*.
- **Postdoctoral Research Associate**, Department of Electrical and Computer Engineering, **Boston University**, *June 1994–September 1995*.
- **Research Associate**, Department of Systems and Control Engineering, **Case Western Reserve University**, Cleveland, Ohio, *January 1994–May 1994*.
- **Teaching and Research Assistant**, **Case Western Reserve University**, *August 1989–January 1994*.
- **Teaching and Research Faculty**, Department of Mathematics & The Institute of Automation, **Qufu Normal University**, Shandong, PRC, *July 1987–October 1988*.

HONORS AND AWARDS

- **IEEE Fellow** (Class 2008) (through the IEEE Communications Society).
- NSC Visiting Researcher (Professorship sponsored by National Research Council), Department of Computer Science and Information Engineering, National Taiwan University, 2007-2008.
- **University of Florida Research Foundation (UFRF) Professorship**, 2006-2009.
- **Office of Naval Research Young Investigator Award**, May 2002.
- **National Science Foundation Faculty Early Career Development Award**, June 2001.
- CAST 2001 Academic Excellence Award, Chinese Association for Science and Technology (CAST), USA.
- Won the **Best Paper Award** for the paper “*Impact of routing metrics on path capacity in multi-rate and multi-hop wireless ad hoc networks*” (H. Zhai and Y. Fang) at *The 14th IEEE International Conference on Network Protocols (ICNP’06)*, Santa Barbara, California, November 12-15, 2006.
- Won the **IEEE TCGN Best Paper Award** for the paper “*Fast Collision Resolution (FCR) MAC Algorithm for Wireless Local Area Networks*” (Younggoo Kwon, Yuguang Fang and Haniph Latchman) at *IEEE High-Speed Networks Symposium 2002*, a part of *IEEE Globecom’2002*, Taipei, Taiwan, November 17–21, 2002.
- College of Engineering (CoE) Nominee for the 2006-2007 Doctoral Dissertation Advisor/Mentoring Award at University of Florida. Not selected in the Graduate School (University) level.

- College of Engineering (CoE) Nominee for the 2005-2006 Doctoral Dissertation Advisor/Mentoring Award at University of Florida. Not selected in the Graduate School (University) level.
- Appreciation Award for the service as the Steering Committee Co-chair, *the Third International Conference on Quality of Service in Heterogeneous Wired/wireless networks (QShine'2006)*, Waterloo, Canada, August 7-9, 2006.
- Guest Professor, Institute of Software, Chinese Academy of Science, China, July 2004-December 2006.
- Guest Professor, The School of Computer Science & Technology, Beijing University of Posts & Telecommunications, China, November 1, 2004 to April 30, 2010.
- 2004 IEEE Regional Activities Board (RAB) Section Membership Growth Award, given to IEEE Gainesville Section (Fang as the Section Chair).
- IEEE Appreciation Award for Notable Services and Contributions towards the Advancement of IEEE and Engineering Professions as IEEE Gainesville Section Chair, given by IEEE Florida Council, both year 2004 and 2005.
- IEEE Appreciation Award for the service to *IEEE Wireless Communications and Networking Conference (WCNC'2000)*, held in Chicago, Illinois, September 2000.

PATENTS

- **Y. Fang**, J. Wang and D. Wu, "Medium access control in wireless local area networks with multi-beam access point," filed in May, 2005. UF# 11805.
- **Y. Fang**, J. Wang and D. Wu, "Coordinated directional medium access control in wireless networks," filed in March, 2005. UF# 11771, doc.# 5853-588.
- **Y. Fang** and B. Kim, "Channel estimation and synchronization with preamble using polyphase code," filed in March 2004. UF# 11061, doc.# 5853-365. US Patent No. 20050128938.
- **Y. Fang** and B. Kim, "Multilayer differential phase shift keying with bit-interleaved coded modulation and OFDM," filed in January 2004. UF# 11060, doc.# 5853-364. US Patent No. 20050111590.

ACADEMIC SERVICES

SCHOLARLY SUPERVISION

Current Graduate Students

- Ph.D students: Feng Chen, Frank Goergen, Rongsheng Huang, Pan Li, Miao Pan, Yang Song, Jinyuan Sun, Gustavo Vejarano, Chi Zhang

Current Postdoctoral Researchers

- Dr. Sunmyeng Kim, May 2006-May 2007.

Current Visiting Scholars

- Dr. Won-Sik Yoon, Professor, Department of Electrical and Computer Engineering, Ajou University, Suwon, Korea. Visiting period: December 2006-January 2008.
- Dr. Daein Jeong, Associate Professor, Department of Digital Information Engineering, Hankuk University of Foreign Studies, Seoul, Korea. Visiting period: July 2006-June 2007.
- Dr. Hyunjoon Jin, Associate Professor, Department of Information and Communication Engineering, Hoseo University, Chungnam, Korea. Visiting period: July 2006-January 2008.

Graduated Students

- **Xiaoxia Huang**, Ph.D, August 2007. Initial employment: TBD. Ph.D Dissertation: *Routing Protocols in Ad Hoc Networks: Robustness and Optimization*.
- **Yun Zhou**, Ph.D, August 2007. Initial employment: Microsoft Corporation, Redmond, Washington. Ph.D Dissertation: *Security in Wireless Sensor Networks*.
- **Jianfeng Wang**, Ph.D, December 2006. Initial employment: Senior Technical Research Staff, WiCAN-Wireless Communications and Networking Department, Philips Research North America, Briarcliff Manor, New York. Current position: the same. Ph.D Dissertation: *Distributed Scheduling for Harnessing Channel Diversity and Smart Antennas in Wireless Networks*.
- **Shushan Wen**, Ph.D, December 2006. Initial employment: Senior Software Engineer, Bay Microsystems, San Jose, California. Ph.D Dissertation: *Traffic Control in TCP/IP Networks*.
- **Hongqiang Zhai**, Ph.D, August 2006. Initial employment: Senior Technical Research Staff, WiCAN-Wireless Communications and Networking Department, Philips Research North America, Briarcliff Manor, New York. Current position: the same. Ph.D Dissertation: *Cross-layer Design of Networking Protocols in Wireless Local Area Networks and Mobile Ad Hoc Networks*.
- **Yanchao Zhang**, Ph.D, August 2006. Initial employment: Assistant Professor, Department of Electrical and Computer Engineering, New Jersey Institute of Technology, Newark, New Jersey. Current position: the same. Ph.D Dissertation: *Security in Heterogenous Wireless Ad Hoc Networks: Challenges and Solutions*.
- **Jing Zhao**, Ph.D, December 2005. Initial employment: TBD. Current position: unknown. Ph.D Dissertation: *Information Theoretic Approach for Low Complexity Adaptive Motion Estimation*.
- **Wei Liu**, Ph.D, August 2005. Initial employment: Senior Engineer, Scalable Network Technologies, Tampa, Florida. Current position: Senior Engineer, Scalable Network Technologies, Los Angeles, California. Ph.D Dissertation: *Cross-layer Design of Resource Aware Protocols for Heterogeneous Wireless Ad Hoc Networks*.
- **Xiang Chen**, Ph.D, August 2005. Initial employment: Motorola Labs, Illinois. Current position: the same. Ph.D Dissertation: *Resource Management for Wireless Networks*.
- **Byung-seo Kim**, Ph.D, December 2004. Initial employment: Motorola, Inc., Illinois. Current position: Assistant Professor, Department of Computer Information & Communication, Hongik University, Korea. Ph.D Dissertation: *Link-Adaptive Medium Access Control Protocol for High-Speed Wireless Networks*.

- **Wenjing Lou**, Ph.D, August 2003. Initial employment: Assistant Professor, Department of Electrical and Computer Engineering, Worcester Polytechnic Institute, Massachusetts. Current position: the same. Ph.D Dissertation: *SPREAD: Secure Protocol for Reliable Data Delivery*.
- **Wenchao Ma**, Ph.D, August 2003. Initial employment: Associate Researcher, Microsoft Research Asia, Beijing, China. Current position: Senior Researcher, Lenovo Research. Ph.D Dissertation: *Mobility Management for Wireless Mobile Networks*.
- **Younggoo Kwon**, Ph.D, August 2002. Initial employment: Manager, Samsung Electro-Mechanics, Inc., Korea. Current position: Assistant Professor, Konkuk University, Korea. Ph.D Dissertation: *Medium Access Control Protocols with Fast Collision Resolution for Wireless Local Area Networks*.
- **Arun Avudainayagam**, MS, December 2001. Initial employment: Ph.D student (advisor: John Shea), ECE, University of Florida. Current position: Senior Powerline Research Engineer, Intellon, Ocala, Florida.

Past Postdoctoral Researchers

- Dr. Sungwon Kim, August 2003–July 2005. Initial employment: Assistant Professor, Yeungnam University, Korea.

Past Visiting Scholars

- Dr. Jason Lim, Associate Professor, Ajou University, Korea, January 2004–December 2005.
- Dr. Xuejun Tian, Assistant Professor, Faculty of Information Science, Aichi Prefectural University, Aichi, Japan, July 1, 2003–June 30, 2004.

UNIVERSITY SERVICES

- Serving on Faculty Development Committee, Department of Electrical and Computer Engineering, University of Florida, August 2007–Present.
- Elected to serve as a member of the College of Engineering Tenure and Promotion Board, Fall 2005–Present.
- Serving on the Advisory Committee for the Department Chair, Department of Electrical and Computer Engineering, University of Florida, August 2003–Present.
- Serving on the Graduate Admission and Aid Committee, Department of Electrical and Computer Engineering, University of Florida, Fall 2003–present.
- Served on the Faculty Search Committee, Department of Electrical and Computer Engineering, University of Florida, 2003–2004.
- Served on the Department Chair Search Committee, Department of Electrical and Computer Engineering, University of Florida, 2002–2003.
- Served on the Faculty Search Committee, Department of Electrical and Computer Engineering, University of Florida, 2002–2003.
- Served on the Faculty Search Committee (Senior Faculty in Communications), Department of Electrical and Computer Engineering, University of Florida, 2001–2002.

- Served on the Faculty Search Committee, Department of Electrical and Computer Engineering at New Jersey Institute of Technology, 1998–1999, 1999–2000.
- Served on the Senior Project Committee, NJIT, September 1998–May 2000.
- Served on many Ph.D Dissertation Committees and MS thesis committees in ECE and CISE departments at UF.

PROFESSIONAL ACTIVITIES

MEMBERSHIP

- Fellow of the *IEEE* (S'92-M'94-S'96-M'97-SM'99-F'08).
 - IEEE Communication Society (ComSoC)
- Member of the *ACM* (M'99).
 - ACM Special Interest Group in Mobility of Systems, Users, Data and Computing (ACM Sig-Mobile)
 - ACM Special Interest Group in Communications (ACM SigComm)

COMMITTEE ACTIVITIES

- Chair of IEEE Gainesville Section, December 2003-December 2005.
- Vice-Chair of IEEE Gainesville Section, December 2001-December 2003.
- Vice-Chair of North Jersey Chapter of *IEEE Communications Society*, January 2000-May 2000 (terminated due to job relocation).
- Member of the Board of Directors for the *Chinese Association for Science and Technology, USA (CAST)*, November 1999-December 2002.

EDITORSHIP

- **Editor** for Wireless Networks, *IEEE Transactions on Communications*, May 2000–present.
- **Editor** for *IEEE Transactions on Wireless Communications*, January 2002–present.
- **Editor** for *IEEE Transactions on Mobile Computing*, November 2003–present.
- **Editor** for *ACM Wireless Networks (WINET)*, April 2001–present.
- **Editor** for *IEEE Wireless Communications*, January 2003–present.
- **Editor** for *Journal of Computer Science and Technology (JCST)*, November 2006–Present.
- **Area editor** for Performance Analysis in Wireless Networks, *ACM Mobile Computing and Communications Review*, September 1998–December 2003.
- **Editor** for *Wiley International Journal on Wireless Communications and Mobile Computing (WCMC)*, September 2000–January 2004.

- Leading Guest editor (with Sherman Shen and Shigang Chen) for Special Section on Cross-layer Design for Mobile Ad Hoc Networks and Wireless Sensor Networks, *IEEE Transactions on Vehicular Technology*, 2005–2006.
- Leading Guest editor (with Sherman Shen) for Special Issue on Quality of Service in Heterogeneous Wired/Wireless Networks, *ACM Wireless Networks*, 2005–2006.
- Leading Guest editor (with Phone Lin and Yi-Bing Lin) for Special Issue on Mobility and Resource Management, *IEEE Wireless Communications Magazine*, 2003–2004.
- **Editor** for *IEEE Journal on Selected Areas in Communications: Wireless Communications Series*, May 1999–December 2001.
- **Feature editor** for *Scanning the Literature, IEEE Wireless Communications*, January 2002–April 2003.
- **Feature editor** for *Scanning the Literature, IEEE Personal Communications*, April 2000– December 2001.

CONFERENCE ORGANIZATION

- **Executive Committee**
 - **Co-Founder and Co-Chair** for the Steering Committee for *International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine)*, 2004-Present.
 - **Co-Chair for Wireless and Mobile Computing Track**, IEEE International Symposium on Personal, Indoor & Mobile Radio Communications (PIMRC), Palais des Festivals, Cannes, France, September 14-18, 2008.
 - **General Chair** for *Second International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine'05)*, Orlando, Florida, August 2005.
 - **Vice-Chair** of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'05)*, Miami, Florida, 2005.
 - **Vice General Chair** for *First International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine'04)*, Dallas, Texas, October 2004.
 - **Program Co-Chair** for Global Internet and Next Generation Networks symposium, *IEEE Globecom'2004*, Dallas, Texas, Nov.29-Dec.3, 2004.
 - **Chair** for Symposium on MAC Protocol for Wireless Networks and Member of Technical Program Committee for *IEEE Vehicular Technology Conference (VTC'2003 Fall)*, Orlando, Florida, September 2003.
 - **Chair** of the Publicity Committee for *SCS International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2003)*, Montreal, Canada, July 20 -24, 2003.
 - **Co-chair** of Committee for Student Travel Grant, the *Eighth Annual International Conference on Mobile Computing and Networking (MobiCom'2002)*, Atlanta, Georgia, September 2002.
 - **Chair** of the Publicity Committee for *SCS International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2002)*, San Diego, CA, USA, July 14-18, 2002.

- **Vice-Chair** of Technical Program Committee for *IEEE Wireless Communications and Networking Conference (WCNC'00)*, Chicago, Illinois, September 2000.
- **Registration Chair** and **Session Chair** for *1999 US-China Conference on High-Tech Industry Development and Business Opportunities*, Sheraton Hotel at Newark International Airport, New Jersey, April 12-13, 1999.
- **Vice-Chair** of Technical Program Committee for *the 1998 International Conference on Computer Communications and Networks (IC3N'98)*, Lafayette, Louisiana, October 1998. Also served as a **session chair**.

- **Technical Committee**

- Member of Technical Program Committee for *International Conference on Circuits and Systems for Communications (ICCSC)*, Shanghai, China, May 26-28, 2008.
- Member of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'08)*, Phoenix, Arizona, April 13-19, 2008.
- Member of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'07)*, Anchorage, Alaska, May 6-12, 2007.
- Member of Technical Program Committee for *the 4th ACM Workshop on Security of Ad-Hoc and Sensor Networks (SASN'06)*, in conjunction with the *13th ACM Conference on Computer and Communications Security (CCS '06)*, Alexandria, Virginia, October 30-November 3, 2006.
- Member of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'06)*, Barcelona, Spain, April 23-29, 2006.
- Member of Technical Program Committee for 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC'2006), Ft. Lauderdale, Florida, USA, April 23-25, 2006.
- Member of Technical Program Committee for *the 25th IEEE International Performance, Computing, and Communications Conference (IPCCC'2006)*, Pheonix, AZ, April 10-12, 2006.
- Member of Technical Program Committee for *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'2005)*, Berlin, Germany, September 11-14, 2005.
- Member of Technical Program Committee for *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'2004)*, Barcelona, Spain, September 5-8, 2004.
- Member of Technical Program Committee for *the First International Conference on E-Business and Telecommunications (ICETE'04)*, Setubal, Portugal, August 25-28, 2004.
- Member of Technical Program Committee for *the 23rd IEEE International Performance, Computing, and Communications Conference (IPCCC'2004)*, Pheonix, AZ, April 15-17, 2004.
- Member of Technical Program Committee for *IEEE Wireless Communications and Networking Conference (WCNC'04)*, Atlanta, Georgia, March 2004.
- Member of Technical Program Committee for *The 2nd International Conference on Wired/Wireless Internet Communications (WWIC'04)*, Frankfurt, Germany, February 05-07, 2004.
- Member of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'04)*, Hong Kong, China, 2004.
- Member of Technical Program Committee for *IEEE Globecom'2004*, Dallas, Texas, Nov.29-Dec.3, 2004.

- Member of Technical Program Committee for *High Speed Networks Symposium in IEEE International Conference on Communications (ICC'2004)*, Paris, France, June 20-24, 2004.
- Member of Technical Program Committee for *The 24th IEEE International Conference on Distributed Computing Systems(ICDCS'2004)*, Tokyo, Japan, March 23-26, 2004.
- Member of Technical Program Committee for *Next Generation Networks and Internet, IEEE Globecom'2003*, San Francisco, CA, December 1-5, 2003.
- Member of Technical Program Committee for *International Workshop on Applications of Ad Hoc Networks* in conjunction with *2003 International Conference on Parallel Processing (ICPP'2003)*, Kaohsiung, Taiwan, October 6-9, 2003.
- Member of Technical Program Committee for *The First ACM International Workshop on Wireless Mobile Applications and Services on WLAN Hotspots* (in conjunction with ACM MobiCom'2003), San Diego, CA, September 19, 2003.
- Member of Technical Program Committee for *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'2003)*, Beijing, China, September 7-10, 2003.
- Member of Technical Program Committee for *International Conference on Information Technology: Research and Education (ITRE'2003)*, Newark, New Jersey, August 10-13, 2003.
- Member of Technical Program Committee for the Posters in *The Fourth ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc'2003)*, Annapolis, Maryland, June 2003.
- Member of Technical Program Committee for *the IEEE International Conference on Computer Communications (INFOCOM'03)*, San Francisco, California, 2003.
- Member of Technical Program Committee for *the 22nd IEEE International Performance, Computing, and Communications Conference (IPCCC'2003)*, 2003.
- Member of Technical Program Committee for *IEEE Vehicular Technology Conference (VTC'2002, Fall)*, Vancouver, British Columbia, Canada, September 2002.
- Member of Program Committee for 2002 China Wireless Congress, Hangzhou, China, October 2002.
- Member of Technical Program Committee for *IEEE Wireless Communications and Networking Conference (WCNC'02)*, Orlando, Florida, March 2002.
- Member of Technical Program Committee for *the High Speed Networks*, Part of *the IEEE Globecom'2002*, Taipei, Taiwan, November 2002. Also serving as a **session chair**.
- Session Co-Chair for special long paper poster sessions (three day events), *IEEE Military Communications Conference (MilCom'2001)*, Vienna, Virginia, October 2001.
- Member of Technical Program Committee for *the Seventh Annual International Conference on Mobile Computing and Networking (MobiCom'2001)*, Rome, Italy, July 2001.
- **Session Chair** for session *Wireless I* in *SCS International Symposium on Performance Evaluation of Computer and Telecommunication Conference*, Orlando, Florida, July 15-19, 2001.
- Member of Technical Program Committee for *the 19th IEEE International Conference on Computer Communications (INFOCOM'00)*, Tel-Aviv, Israel, March 2000. Also served as a **session chair**.
- Member of Technical Program Committee for *the IEEE Wireless Communications and Networking Conference (WCNC'99)* (the expanded version of ICUPC), New Orleans, Louisiana,

September 1999. Session co-organizer for *Teletraffic aspects and resource allocation in wireless networks I* and II. **Session Chair** for Teletraffic aspects and resource allocation in wireless networks **I**.

- Member of Technical Program Committee for *the 17th IEEE International Conference on Computer Communications (INFOCOM'98)*, San Francisco, California, 1998.
- Member of Technical Program Committee for *the First International Workshop on Wireless and Mobile Multimedia (WOW-MOM'98)* in conjunction with *ACM/IEEE MobiCom'98*, Dallas, Texas, October, 1998.

Professional Evaluator

- External examiner, Programme of Study of the M.Sc. in Information Engineering, 2007-2008.
- External reviewer, the Strategic Projects Program, Natural Science and Engineering Research Council of Canada (NSERC), July 2007.
- External examiner for the Ph.D dissertation by Mr. Humphrey Rutagemwa, Department of Electrical and Computer Engineering, University of Waterloo, Canada, April 2006.
- International proposal evaluator for *Hong Kong Research Grant Council(RGC)*, March 2007.
- Reviewer for Oak Ridge Associated Universities (ORAU) Ralph Powe Junior Faculty Award program, February 2007.
- Proposal panelist, Faculty Early Career Development (**CAREER**) Program, *National Science Foundation*, November 6-7, 2006.
- Proposal panelist, Faculty Early Career Development (**CAREER**) Program, *National Science Foundation*, October 10-11, 2006.
- Proposal panelist, Faculty Early Career Development (**CAREER**) Program, *National Science Foundation*, October 5, 2006.
- Book proposal reviewer for the book: *Network Analysis Essentials*, Cambridge University Press, July 2006.
- External reviewer, the Strategic Projects Program, Natural Science and Engineering Research Council of Canada (NSERC), July 2006.
- Book proposal reviewer for the book: *Wireless Communications and Networking: An Introduction*, Morgan Kaufmann/Elsevier Publisher, June 2006.
- Proposal reviewer, Discrete Mathematics & Computer Science program, Army Research Office, March 2006.
- International proposal evaluator for *Hong Kong Research Grant Council(RGC)*, January 2006.
- Proposal reviewer, Division of Biological Infrastructure, National Science Foundation, September 2005.
- Proposal panelist, 8.1 Research Partnership Program, The Ontario Centres of Excellence (OCE), Canada, September 2005.

- Proposal reviewer, The Kentucky Science and Engineering Foundation, The State of Kentucky, August 2005.
- Proposal reviewer, The Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR) Program in South Carolina, July 2005.
- Proposal reviewer, the University of Missouri Research Board, April 2005.
- International proposal evaluator for *Hong Kong Research Grant Council(RGC)*, February 2005.
- Out-of-state proposal reviewer for the Research Competitiveness Subprogram of the Board of Regents Support Fund R&D Program of the State of Louisiana, January 2005.
- International proposal evaluator for *Hong Kong Research Grant Council(RGC)*, May 2004.
- Proposal reviewer, Discrete Mathematics & Computer Science Division, *Army Research Office (ARO)*, May 2004.
- Proposal reviewer, Program for NSF Science and Technology Centers (STC): Integrative Partnerships, *National Science Foundation*, April 2004.
- Proposal reviewer, The Computing & Information Sciences Division, *Army Research Office (ARO)*, March 2004.
- Proposal panelist, Faculty Early Career Development (**CAREER**) Program, *National Science Foundation*, November 2003.
- External examiner for the Ph.D dissertation by Mr. Jian Zhao, Department of Computer Science, Hong Kong University of Science and Technology, Hong Kong, China, June 2003.
- Proposal panelist, ITR Medium (Group), *National Science Foundation*, May 22-23, 2003.
- External examiner for the Ph.D dissertation by Mr. Li Cong, Department of Electrical and Computer Engineering, University of Waterloo, Canada, April 2003.
- International proposal evaluator for Hong Kong Research Grant Council, April 2003.
- Proposal panelist, the FY2002 NSF/USDOT Partnership for Exploratory Basic Research in Information & Communications Systems for Surface Transportation, *National Science Foundation*, July 23, 2002.
- International proposal evaluator for *Hong Kong Research Grant Council (RGC)*, April 2002.
- Proposal panelist, Networking Research Program, *National Science Foundation*, April 8-9, 2002.
- Proposal panelist, Networking Research Program, *National Science Foundation*, May 7-8, 2001.
- Proposal reviewer, *National Science Foundation*, February 2000.
- Proposal reviewer for SDSU Foundation Energy Innovations Small Grant (EISG) Program, California Energy Commission (CEC), August 2002.
- Out-of-state proposal reviewer for the Research Competitiveness Subprogram of the Board of Regents Support Fund R&D Program of the State of Louisiana, 1999.

- Out-of-state proposal reviewer for the Research Competitiveness Subprogram of the Board of Regents Support Fund R&D Program of the State of Louisiana, 1998.
- Active reviewers for various professional journals and conferences.
- Reviewer for the textbook *Communications Networks: Fundamental Concepts and Key Architectures* by A. Leon-Garcia and I. Widijaja, Second Edition, McGraw-Hill, March 2001.

Invited Seminars and Presentations

- “Medium Access Control Protocols for for Mobile Ad Hoc Networks,” **Invited-Speaker Series**, Graduate Colloquium, Department of Electrical Engineering and the Graduate School, Northern Illinois University, October 12, 2007.
- “Securing Wireless Sensor Networks,” **Distinguished-Speaker Seminar**, Department of Electrical and Computer Engineering, Illinois Institute of Technology, October 11, 2007.
- “How can You Become a Good Researcher?” Seminar Series of Program 111 Sponsored by Ministry of Education of China, Institute of Wireless Communications and Technology and **Shanghai Key Laboratory** of Media Processing and Transmission, Shanghai Jiao Tong University, Shanghai, China, June 11, 2007.
- “Securing Wireless Sensor Networks,” **Distinguished Invited Talk**, China 973 Wireless Sensor Network Laboratory and Self-organization Network and Network Computing Center, Shanghai Jiao Tong University, Shanghai, China, June 11, 2007.
- “How can You Become a Good Researcher?” School of Telecommunications Engineering and **State Key Laboratory** of Integrated Services Networks, Xidian University, Xi’an, Shaanxi, China, June 8, 2007.
- “Securing Wireless Mesh Networks,” School of Telecommunications Engineering and **State Key Laboratory** of Integrated Services Networks, Xidian University, Xi’an, Shaanxi, China, June 7, 2007.
- “How Should Cross-layer Design Be Done?” School of Telecommunications Engineering and **State Key Laboratory** of Integrated Services Networks, Xidian University, Xi’an, Shaanxi, China, June 6, 2007.
- “Medium Access Control Protocols for for Mobile Ad Hoc Networks,” School of Telecommunications Engineering and **State Key Laboratory** of Integrated Services Networks, Xidian University, Xi’an, Shaanxi, China, June 6, 2007.
- “Medium Access Control Protocols for for Mobile Ad Hoc Networks,” Seminar Series of Program 111 Sponsored by Ministry of Education of China, Institute of Wireless Communications and Technology and **Shanghai Key Laboratory** of Media Processing and Transmission, Shanghai Jiao Tong University, June 4, 2007.
- “Path Capacity for Multi-rate and Multi-channel Wireless Ad Hoc Networks,” BBN Technologies, Cambridge, Massachusetts, May 3, 2007.
- “Securing Wireless Networks with Resource-Constrained Devices,” Department of Electrical and Computer Engineering, University of Waterloo, Waterloo, Canada, April 17, 2007.

- “Securing Wireless Networks with Resource-Constrained Devices,” **Distinguished Visitor Lecture**, School of Computing and Informatics, Arizona State University, February 12, 2007.
- “Secure Protocol Design for Wireless Sensor Networks,” Naval Research Laboratory (NRL), Washington, DC, July 5, 2006.
- “Medium Access Control Protocols for Mobile Ad Hoc Networks,” Brown Bag Seminar, Department of Electrical and Computer Engineering, University of Florida, February 28, 2006.
- “Medium Access Control Protocols for Mobile Ad Hoc Networks,” Department of Electronic Engineering & Department of Computer Science, Tsinghua University, Beijing, China, June 18, 2004.
- “My American Experience,” Qufu Normal University, June 14, 2004. (Over 800 faculty and students attended).
- “Medium Access Control Protocols for Ad Hoc Networks,” Beijing University of Post and Telecommunications, Beijing, May 25, 2004.
- “Wireless Telecommunications: Current Research and Future Directions,” Department of Electronic Engineering & Department of Computer Science, Tsinghua University, Beijing, China, May 24, 2004.
- “Wireless Medium Access Control Protocols: Problems and Solutions” Center for Wireless Systems and Applications (CWSA), Purdue University, April 2, 2004.
- “Medium Access Control Protocols for Mobile Ad Hoc Networks,” Joint seminar between Department of Information Engineering and Department of Computer Science, The Chinese University of Hong Kong, Hong Kong, March 8, 2004.
- “Wireless Medium Access Control Protocols,” Department of Electrical Engineering, University of Toronto, Canada, April 24, 2003.
- “Wireless Medium Access Control Protocols,” Department of Electrical Engineering and Institute for Computing Research, University of Waterloo, Canada, April 23, 2003.
- “A Novel Medium Access Control Protocol with Fast Collision Resolution for Wireless LANs,” Department of Computer Science and Information Engineering, National Taiwan University, Taipei, Taiwan, November 28, 2002.
- “Mobility Management: Performance Modeling and Analysis,” Department of Computer Science and Information Engineering, National Chiao Tung University, Hsinchu, Taiwan, November 25, 2002.
- “Medium access control protocols for wireless LANs,” Philips Research USA, Briarcliff Manor, New York, June 24, 2002.
- “Teletraffic analysis and mobility modeling for wireless mobile networks,” Invited Lecture, Department of Electrical and Computer Engineering, University of Florida, January 24, 2000.
- “Teletraffic analysis in personal communications networks,” The Institute of Automation, Qufu Normal University, Shandong, The People’s Republic of China, June 1, 1999.
- “Ubiquitous personal communications: technologies and applications,” The Institute of Automation, Qufu Normal University, Shandong, The People’s Republic of China, May 28, 1999.

- “Teletraffic aspects in personal communications networks,” Invited Seminar, WINLAB, Rutgers University, New Jersey, November 11, 1998.
- “New analytical tools in personal communications networks,” Invited Seminar, Center for Telecommunications Studies, University of Southwestern Louisiana, Lafayette, Louisiana, October 15, 1998.
- “Teletraffic aspects in personal communications services (PCS) networks,” Invited Seminar, Department of Electrical Engineering, University of Washington, February 12, 1998.

GRANTS

- “NeTS-WN: A Novel Cross-layer Design Approach for Wireless Ad Hoc Networks,” **(PI)**. National Science Foundation. \$300,000, 9/1/2007-8/31/2010.
- “COLLABORATIVE RESEARCH: CT-ISG: Overlay-Based User Unlocatability and Communication Anonymity in Mobile Ad Hoc Networks,” **(PI)**. National Science Foundation. \$234,000, 8/1/2007-7/31/2010. This is a collaborative project with Dr. Yanchao Zhang, New Jersey Institute of Technology. The total award amount is \$450,000, University of Florida is the leading institution and Fang is the overall PI for this project.
- “NeTS-NBD: COLLABORATIVE RESEARCH: UPASS-An Attack Resilient Security Architecture for Wireless Mesh Networks,” **(PI)**. National Science Foundation. \$320,000, 9/15/2006-8/31/2009. This is a collaborative project with Dr. Wenjing Lou, Worcester Polytechnic Institute. The total award amount is \$570,000, University of Florida is the leading institution and Fang is the overall PI for this project.
- “SIRG: COLLABORATIVE RESEARCH: DeerNet-Wireless Sensor Networking for Wildlife Behavior Analysis and Interaction Modeling,”**(PI)**. National Science Foundation, with D. Wu. \$570,000, 9/15/2005-8/31/2008. This is a collaborative project with Dr. Z. He and Dr. J.J. Millsbaugh, University of Missouri, Columbia. The total award amount is \$1,050,000, University of Florida is the leading institution and Fang is the overall PI for this project.
- “HANET: Heterogeneous Ad Hoc Networks Testbed,”**(Co-PI)**, *Army Research Office*, with J. Shea **(PI)** and T. Wong, \$109,604, 5/1/2004-4/30/2005.
- “Cross-Layer optimization: network diversity through relaying in ad hoc networks,” **(Co-PI)**, *Harris Corporation*, with John M. Shea **(PI)** and Tan F. Wong, \$72,145, 10/29/2003-7/15/2004.
- “Proof of concept for using airborne traffic surveillance systems for Florida and its applications,” **(Co-PI)**, *Florida Department of Transportation*, with H. Latchman **(PI)**, T. Wong, J. Shea, J. McNair, D. Bloomquist and Yue Li, \$250,458, 11/19/02-7/31/04.
- “Reconfigurable Multi-node Wireless Communication Testbed,” **(Co-PI)**, with T. Wong **(PI)** and J. Shea, *National Science Foundation*, \$67,200, 7/1/2002-6/30/2005.
- “Comparative Study of Spread Spectrum and Time Modulation Ultra-Wideband Communications,” **(Co-PI)**, with T. Wong **(PI)** and J. Shea, *Air Force Research Lab*, \$300,000, 6/1/2002-5/31/2003.
- “ITR: Cooperative Communications Schemes for Wireless Networks,” **(Co-PI)**, with Tan Wong **(PI)** and John Shea, *National Science Foundation*, \$450,000, 7/1/2002-6/30/2005.

- “Secure and Power Efficient Protocols for Reliable Data Delivery for Heterogeneous Tactical Ad Hoc Networks,”(PI), *Office of Naval Research Young Investigator Award*, \$300,000, 5/1/2002-6/30/2005.
- “Collaborative Transmission and Reception,” (Co-PI, with Tan Wong (PI) and John Shea), *Office of Naval Research*, \$275,199, 5/1/2002-9/31/2004.
- “Powerline Communications and Networking Research,” (PI, joint effort with Jonathan Liu), *Samsung Electro-Mechanics*, Korea, \$75,058, 7/1/2001-6/30/2002.
- “Powerline Communications and Networking Research (Supplement),” (PI) *Samsung Electro-Mechanics, Inc.*, Korea, \$18,439, 7/1/2002-8/30/2002.
- “OFDM Technologies and QoS MAC Protocols for Fixed Wireless Networks,” (PI, joint effort with Tan Wong and John Shea), *Samsung Electro-Mechanics, Korea*, \$74,942, 7/1/2001-6/30/2002.
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- “Intelligent Resource Management and Performance Evaluation for Wireless Mobile Networks Supporting Integrated Services,”(PI), *National Science Foundation Faculty Early Career Development Award*, \$369,120, 6/1/2001-5/31/2006.
- Travel grant from *National Science Foundation* to attend *IEEE INFOCOM’2000* held in Tel-Aviv, Israel, March 2000 for paper “An active mobility database failure recovery scheme and performance analysis for PCS networks.”
- “Mobile RF Network Formation Study in Ad Hoc Networks,” (Co-PI, joint effort with Dr. Yeheskel Bar-Ness), *ITT Industries*, New Jersey, \$62,200, 8/1999-5/2000.
- “Traffic Analysis and Mobility Modeling for Wireless Networks” (PI), *New Jersey Institute of Technology Separately Budgeted Research (SBR) Grant*, \$24,350, 7/1999-5/2000.
- “Time-spread and frequency-spread data link layer control protocols,” (PI), *New Jersey Institute of Technology Separately Budgeted Research (SBR) Grant*, \$26,000, 10/1998-5/1999.

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