

# Dr. Li (Liliane)Wang

IEEE Senior Member

Associate Professor (Ph.D. Supervisor)

Beijing University of Post and Telecommunications (BUPT)

**Personal Information**    Gender: **Female**;    Birth date: **09/1982**.

Director for High Performance Computing and Networking Lab (HPCN)

## **Contact Information**

Mailing Address	Room 743, Teaching Building 3, BUPT No. 10 Xitucheng Road, Haidian District, Beijing, 100876, P.R.China
Telephone	+86-10-62282751 (O); +86-13811300132 (Cell)
Fax	+86-10-62281958
E-mail Address	<a href="mailto:liwang@bupt.edu.cn">liwang@bupt.edu.cn</a>
Website	<a href="http://liwangbupt.com">http://liwangbupt.com</a>

## **Education**

09/2006-07/2009	School of Electronic Engineering, Beijing University of Posts and Telecommunications Beijing, China	<b><i>Ph.D.</i></b> (2009)
09/2003-07/2006	Institute of Electronic Technology, Information Engineering University of PLA Zhengzhou, China	<b><i>M.S.</i></b> (2006)
09/1998-07/2002	Institute of Electronic Technology, Information Engineering University of PLA Zhengzhou, China	<b><i>B.S.</i></b> (2002)

## **Work Experience**

<b>12/2011-Present</b>	School of Electronic Engineering Beijing University of Posts and Telecommunications	<b><i>Associate Professor</i></b>
<b>08/2015-11/2015</b>	Department of Signals and Systems Chalmers University of Technology	<b><i>Visiting Researcher</i></b>
<b>12/2013-01/2015</b>	School of Electrical and Computer Engineering Georgia Institute of Technology	<b><i>Visiting Researcher</i></b>
<b>07/2009-12/2011</b>	School of Electronic Engineering, Beijing University of Posts and Telecommunications	<b><i>Assistant Professor</i></b>
<b>07/2002-08/2005</b>	China Netcom Group Corporation Puyang Branch	<b><i>Assistant Engineer</i></b>

## **Research Interests**

- Wireless Communications (Cooperative Communications & Physical Layer Security)

- Social Networks (Exploiting Wireless Technologies into Social Networks)

### **Awards and Honors**

- *Best Paper Award runner up*, WASA 2015, Qufu, China, 2015.
- *Visiting Grant* from Chalmers University of Technology, Sweden, 2015.
- *Beijing Higher Education Young Elite Teacher*, China, 2013-2015.
- *Grant from China Scholar Council (CSC)*, China, 2013.
- *Outstanding Instructor Award* of the 8th National Graduate Electronic Design Contest, August 2012.
- *Award for Operational Excellence*, presented at Management World, May 21<sup>st</sup>, 2012 in Dublin, Ireland (as a team member of China Mobile).
- *Best Paper Award* at *International Conference on Communications Technology and Applications* (ICCTA2011), Oct. 14-16, 2011 Beijing China.
- *Outstanding Supervisor of Undergraduate students for 4 years in BUPT since 2009*.
- The paper titled “Fast pairing of device-to-device link underlay for spectrum sharing with cellular users”, was elected as **Top 14** in terms of popularity by **IEEE Commun. Lett.**, and was elected as **Top 50** for couple months in 2014.

### **Books**

- D2D Communications in Cellular Networks, 05/2016, Springer.
- Networking Fundamentals Wide, Local and Personal Area Communications, Chinese Edition, 10/2011.

### **Selected Journals Publications**

1. **Li Wang**, Huaqing Wu, and Zhu Han, “Wireless Distributed Storage in Socially Enabled D2D Communications”, *submitted to IEEE Access*, 2016.
2. Yingyang Chen, **Li Wang**, Zijun Zhao, Meng Ma, and Bingli Jiao, “Secure Multiuser MIMO Downlink Transmission via Precoding-Aided Spatial Modulation”, *submitted to IEEE Comm. Letters*, 2016. (Correspondence Author)
3. **Li Wang**, Huaqing Wu, and Gordon Stuber, “Socially Cooperative Jamming Aided Secrecy Enhancement in P2P Communications with Social Interaction Constraints”, *submitted to IEEE Trans. Veh. Technol.* Oct., 2015. (2<sup>nd</sup> round, Major revision)
4. **Li Wang**, Huan Tang, Huaqing Wu, and Gordon Stuber, “Resource allocation for d2d communications underlay in Rayleigh fading channels”, *submitted to IEEE Trans. Veh. Technol.*, July, 2015. (2<sup>nd</sup> round, Major revision)
5. **Li Wang**, Ruoguang Li, Chunyan Cao, and Gordon Stuber, “On time reversal transmission against eavesdropping in wireless distributed-antenna networks”, *submitted to IEEE Trans. Communications*, 2016. (Minor revision)
6. Bo Bai, **Li Wang**, Zhu Han, Wei Chen, and Tommy Svensson, “Caching Based Socially-Aware D2D Communications in Wireless Content Delivery Networks: A Hypergraph Framework”, *Submitted to IEEE Wireless Communications*, 2016. (Minor Revision. Correspondence Author)

7. **Li Wang** and Huaqing Wu, "Jamming Partner Selection for Maximising the Worst D2D Secrecy Rate Based on Social Trust", *Transactions on Emerging Telecommunications Technologies*, Oct. 2015, DOI: 10.1002/ett.2992.
8. **Li Wang**, Huaqing Wu, Wei Wang, and Kwang-Cheng Chen, "Socially enabled wireless networks: resource allocation via bipartite graph matching", *IEEE Communications Magazine*, vol.53, no.10, pp.128-135, Oct., 2015.
9. **Li Wang** and Gordon Stuber, "Pairing for resource sharing in cellular device-to-device underlays", *IEEE Network*, 2015, to appear.
10. **Li Wang**, Fei Tian, Tommy Svensson, Daquan Feng, Mei Song, and Shaoqian Li, "Exploiting full duplex for device-to-device communications in heterogeneous networks", *IEEE Commun. Mag.*, vol.53, no.5, pp.146-152, May 2015. (**Ranking: top 19** in Jun. 2015)
11. **Li Wang**, Huan Tang, and Michal Cierny, "Device-to-device link admission policy based on social interaction information", *IEEE Trans. Veh. Technol.*, vol.64, no.9, pp. 4180-4186, Sep. 2015.
12. **Li Wang**, Shafi Bashar, Yaman Wei, and Ruoguang Li, "Secrecy enhancement analysis against unknown eavesdropping in spatial modulation", *IEEE Commun. Lett.*, vol.19, no.8, pp. 1351-1354, Aug. 2015.
13. **Li Wang** and Huaqing Wu, "Fast pairing of device-to-device link underlay for spectrum sharing with cellular users", *IEEE Commun. Lett.*, vol.18, no.10, pp.1803-1806, Oct. 2014. (**Ranking: top 14** in Nov. 2014)
14. **Li Wang**, Chunyan Cao, and Huaqing Wu, "Secure inter-cluster communications with socially interactive jamming cooperative against outcast", *Computer Commun.*, DOI: 10.1016/j.comcom.2015.02.012.
15. **Li Wang**, Lie-liang Yang, Xin Ma, and Mei Song, "Security-oriented cooperation scheme in wireless cooperative networks", *IET Commun.*, vol.8, no.8, pp.1265-1273, May 2014.
16. **Li Wang**, Lu Liu, Xianghui Cao, Xiaohua Tian, and Yu Cheng, "Socially-aware resource allocation for device-to-device communications in cellular networks", *IET Commun.*, vol.9, no.3, pp.342-349, Mar. 2015.
17. **Li Wang**, Giuseppe Araniti, Chunyan Cao, Wei Wang, and Yang Liu, "Device-to-device users clustering based on physical and social characteristics", *International Journal of Distributed Sensor Networks*, Feb. 2015.
18. **Li Wang**, Xin Ma, Yue Ma, Yinglei Teng, and Yong Zhang, "Security-oriented transmission based on cooperative relays in cognitive radio", *CIC & IEEE ComSoc China Commun.*, vol.10, no.8, pp.27 -35, Aug., 2013.
19. **Li Wang**, Jingyao Wang, Yifei Wei, *et al.* "Energy-efficient scheme for multiple access networks selection using principal component analysis", *CIC & IEEE ComSoc China Commun.*, vol.8, no.3, pp.133-144, May 2011.
20. **Li Wang**, Yue Ma, Tenghui Ke, *et al.* "Distributed secure relay selection approach over wireless cooperative networks", *CIC & IEEE ComSoc China Commun.*, vol.8, no.6, pp.76-85, Dec. 2011.
21. Yang Liu, Yi Man, Mei Song, Hongtao Zhang, and **Li Wang**, "A cooperative diversity transmission scheme by superposition coding relaying for a wireless system with multiple relays", *Wireless Networks*, 2014, pp.1-17.
22. Yifei Wei, Yinglei Teng , **Li Wang**, Mei Song, and Xiaojun Wang, "QoS provisioning energy saving dynamic access policy for overlay cognitive radio networks with hidden markov channels", *CIC & IEEE ComSoc China Commun.*, vol.10, no.12, pp.92-101, Dec. 2013.
23. Yue Ma, **Li Wang**, Tenghui Ke, Yong Zhang, Mei Song, Xiaojun Wang, "Energy-efficient jammer selection approach for QoS provisioning in distributed wireless cooperative networks", *CIC & IEEE ComSoc China Commun.*, vol.9, no.7, pp.90-98, Oct. 2012.
24. Yinglei Teng, F. Richard Yu, Yifei Wei, **Li Wang**, Yong Zhang, "Behavior modeling for spectrum sharing

- in wireless cognitive networks”, *Wireless Networks*, 2012, 18: 929-947.
25. Mei Song, Yinglei Teng, Yong Zhang, and **Li Wang**, “Couple subscriber cooperative relaying networks for uplink transmission using hierarchical game approach”, *CIC & IEEE ComSoc China Commun.*, vol.7, no.2, pp.17-31, Apr.2010.
  26. **Li Wang**, Jingwei Mo, Yue Ma, and Peng Lu, "Multi-cell cooperation based on time reversal in heterogeneous wireless networks", *The Journal of China Universities of Posts and Telecommunications*, 20(suppl.): 80-85, 2013.
  27. **Li Wang**, Yong Zhang, Yi Man, et al. , “A novel universal authentication protocol based on combined public key in heterogeneous networks”, *The Journal of China Universities of Posts and Telecommun.*, 17 (Suppl):1-5. Jul. 2010.
  28. Chenhui Du, Yue Ma, **Li Wang**, Mei Song, and Yi-Hai Xing, "Energy-aware infrastructure placement for secure communication", *The Journal of China Univ. of Posts and Telecommun.*, 20 (suppl.): 75-80, 2013.

### **Selected Conference Publications**

1. Ruoguang Li, **Li Wang**, Mei Song, and Zhu Han, “Outage Probability Analysis in Hybrid Full-Duplex/Half-Duplex Relay Cooperative Networks”, *IEEE Globecom 2016*. **Submitted.**
2. Huaqing Wu, **Li Wang**, Tommy Svensson, and Zhu Han, “Resource Allocation for Wireless Caching in Socially-Enabled D2D Communications”, *IEEE ICC 2016*.
3. **Li Wang**, Huaqing Wu, and Gordon Stuber, “Resource Allocation with Cooperative Jamming in Socially Interactive Secure D2D Underlay”, *VTC-spring, Nanjing, China, May, 2016*.
4. **Li Wang**, Huaqing Wu, Mugen Peng, Mei Song, and Gordon Stuber, “Secrecy-Oriented Resource Sharing for Cellular Device-to-Device Underlay”, *IEEE GLOBECOM 2015, San Diego, CA, USA, Dec. 6-10, 2015*.
5. Yaman Wei, **Li Wang**, and Tommy Svensson, “Analysis of Secrecy Rate against Eavesdroppers in MIMO Modulation Systems”, *WCSP 2015, Nanjing, China, Oct. 2015*.
6. Zilong Wu, **Li Wang**, Giuseppe Araniti, and Zhu Han, “Exploiting Social Interest Interactions for User Clustering and Content Dissemination in Device-to-Device Communications”, *ICCC 2015, Shenzhen, China, Nov. 2015*.
7. Tiansheng Sun, **Li Wang**, and Tommy Svensson, “Spatial Reuse Based Resource Allocation in Device-to-Device Communications”, *CYCLONE 2015, Roma, Italy, Oct. 2015*.
8. Luke Zhang, **Li Wang**, and Xiaojiang Du, “Secrecy-oriented Adaptive Clustering Scheme in Device-to-Device Communications”, *WASA 2015, Qufu, China, Aug. 2015*.
9. Zhongyuan Zhao, Mugen Peng, **Li Wang**, Yong Li, Antenna Selection in Large-Scale Multiple Antenna Systems, *WASA 2015, Aug. 2015*. (**1<sup>st</sup> Best paper runner-up**).
10. **Li Wang**, Huaqing Wu, Lu Liu, Mei Song, and Yu Cheng, “Secrecy-oriented partner selection based on social trust in device-to-device communications”, *IEEE ICC 2015, London, UK, June 8-12, 2015*.
11. **Li Wang**, Chunyan Cao, Mei Song and Yu Cheng, “Joint cooperative relaying and jamming for maximum secrecy capacity in wireless networks”, *IEEE ICC 2014, Sydney, Australia, June 10-14, 2014*.
12. **Li Wang**, Lie-liang Yang, Jacob Xin Ma, and Mei Song, “Adaptive cooperation schemes for energy efficient physical layer security”, *IEEE INFOCOM 2014 Poster, Toronto, Canada, Apr.27th-May 2nd, 2014*.
13. **Li Wang**, Chunyan Cao, Ma, J.X., and Mei Song, “Cluster-based cooperative jamming in wireless multi-hop networks”, *IEEE PIMRC 2013, London, U.K., Sep. 8 -11, 2013*, pp. 169-174.
14. **Li Wang**, Xi Zhang, Jingwei Mo, and Mei Song, “A secrecy evaluation scheme for infrastructure deployment in radio access network”, *IEEE ICC 2013, Budapest, Hungary, June 9-13, 2013*, pp. 2090-2094.

15. **Li Wang**, Xi Zhang, Wen Zhu, and Mei Song, "Picocell-density based energy-saving for QoS provisioning in heterogeneous networks", IEEE WCNC 2013 , Shanghai, China, April 7 -10, 2013, pp. 175-180.
16. **Li Wang**, Xi Zhang, Xin Ma, and Mei Song, "Joint optimization for energy consumption and secrecy capacity in wireless cooperative networks", IEEE WCNC 2013, April 7-10, 2013.
17. **Li Wang**, Xi Zhang, Mei Song, and Tenghui Ke, "A novel security-oriented cooperative scheme for wireless relay networks in presence of eavesdroppers," IEEE GLOBECOM 2012, Anaheim, CA, USA, Dec. 3-7, 2012, pp. 4560–4565.
18. **Li Wang**, Xi Zhang, Mei Song, and Tenghui Ke, "A novel multi-objective relay-jammer pair selection scheme in wireless cooperative networks", IEEE GLOBECOM 2012, Anaheim, CA, United states, Dec. 3-7, 2012, pp. 5663-5668.
19. **Li Wang**, Mei Song, Yue Ma, Chao Dai, Tenghui Ke, and Xiaojun Wang, "An efficient scheme for access selection over a novel green heterogeneous network architecture", IEEE VTC-Fall 2011, San Francisco, CA, U.S., Sep.5-8, 2011, pp.1-5.
20. **Li Wang**, Mei Song, Junde Song, and Yong Zhang, "A novel dynamic hierarchy AAA scheme for interworking authentication in heterogeneous networks," 2009 *IEEE ICC workshops*, Dresden, Germany, June 14-18, 2009, pp.1-5.
21. **Li Wang**, Mei Song, and Junde Song, "A dynamic periodic distributing scheme for authentication data based on EAP-AKA in heterogeneous interworking networks," *IEEE 2009 VTC-Fall*, Anchorage, U.S., Sep.20-23, 2009, pp.1-5.
22. Yifei Wei, **Li Wang**, Yinghe Wang, and Mei Song, "Energy saving spectrum selection in cognitive radio networks using stochastic control theory", IET ICCTA 2011, Beijing, China, Oct. 14-16, 2011, pp.561-565. **(Best Paper Award)**
23. Longfei Wu, Xiaojiang Du, **Li Wang**, Xinwen Fu, Ralph O. Mbouna, and Seong G. Kong, "Analyzing mobile phone vulnerabilities caused by camera", IEEE GLOBECOM 2014, Austin, USA, Dec.8-12, 2014.
24. Lu Liu, Xianghui Cao, Yu Cheng, and **Li Wang**, "On optimizing energy efficiency in multi-radio multi-channel wireless Nnetworks", IEEE GLOBECOM 2014, Austin, USA, Dec.8-12, 2014.
25. Chunyan Cao, **Li Wang**, Mei Song, and Yong Zhang, "Admission policy based clustering scheme for D2D underlay communications", IEEE PIMRC 2014, Washington D.C., USA, Sept.2-5, 2014, pp.1937-1942.

### **Selected Patents (Issued)**

1. China Patent Office No: ZL 201210285583.8, 19/08/2015.
2. China Patent Office No: ZL 201310112412.X, 15/07/2015.
3. China Patent Office No: ZL 201010608042.5, 24/06/2015.
4. China Patent Office No: ZL 201110241820.6, 30/07/2014.
5. China Patent Office No: ZL 201110241792.8, 30/07/2014.
6. China Patent Office No: ZL 201110241820.6, 20/11/2013.
7. China Patent Office No: ZL 201110358208.7, 10/04/2013.
8. China Patent Office No: ZL 200710307853.X, 29/02/2012.
9. China Patent Office No: ZL200810181187.4, 27/07/2011.
10. China Patent Office No: ZL200910000677.4, 08/06/2011.
11. China Patent Office No: ZL 200810103312.X, 18/05/2011.
12. China Patent Office No: ZL200910178841.0, 27/04/2011.
13. China Patent Office No: ZL200910142249.5, 13/04/2011.
14. China Patent Office No: ZL 200710307854.4, 20/10/2010.

### **Standard Contributions**

1. China Standard YD/T 2141-2010, Wireless Network Domain System Proposals Based on Wireless Applications Protocols.
2. China Standard Report SR 101-2011, Internet of Things and Application Research Report.
3. China Standard Report SR 99-2011, Cognitive Mobile Internet and Service Application Research Report.
4. China Standard Contribution 2009B58, Next Generation Signaling Techniques for Network Service Quality Based on IETF NSIS Workgroup.
5. China Standard Contribution 2009B59, Modern Intelligent Commercial Service Research based on Mobile Internet.

### **Invited Technical Talks**

- **Aalto University**, Finland, 11/2015.
- **University of Reggio Calabria**, Reggio, Italy, 10/2015.
- “Resource Allocation in Device to Device Communications”, **Chalmers University of Technology**, Gothenburg, Sweden, 08/2015. Host---Prof. Tommy Svensson.
- “Impact of Social Interactions on Resource Management in Cellular D2D Communications”, Department of Computer and Information Science, **Temple University**, USA, 10/2014. Host: Prof. Jie Wu (IEEE Fellow) & Prof. Xiaojiang Du.
- “Fast Resource Pairing in Cellular D2D Underlays”, Department of Computer Science, **George Washington University**, USA, 09/2014. Host---Prof. Xiuzhen Cheng (IEEE Fellow).
- “Secrecy-oriented Resource Allocation in D2D Communications”, Department of Electrical and Computer Engineering, **Illinois Institute of Technology**, USA, 08/2014. Host--- Prof. Yu Cheng.

### **Professional Services**

- **SWAT Team member**, IEEE Transactions on Vehicular Technology, 2016, 01.
- Editor, Journal of Machine to Machine Communications
- **Session chair** for IEEE GLOBECOM 2012, IEEE WCSP 2013, IEEE PIMRC 2014, IEEE ICC 2015, WASA 2015.
- **Session chair** for an invited special session titled “Emerging technologies for future generation (5G) wireless networking” of WASA 2015.
- **TPC member** for CCNC2009, CCNC 2010, WCSP 2013, IEEE GLOBECOM 2014, IEEE ICNC 2015, IEEE WCNC 2015, ACM SAC 2015, IEEE ICC 2015, IEEE ICC2015, WASA 2015, IEEE WCSP 2015, IEEE GLOBECOM 2015, IEEE ICC 2016, IEEE VTC Spring 2016, IEEE VTC Fall 2016, IEEE ICNC 2016, IEEE WCNC 2016, ANT-2016. IEEEES 2016, ICCCN’ 2016.
- IEEE Senior Member、 IET Member
- **Reviewer** for Journals including IEEE Trans. Wireless Commun., IEEE Trans. Commun., IEEE Trans. Veh. Technol., IEEE Communications Magazine, IEEE Wireless Communications Magazine, IEEE Communications Letters, John Wiley’s Journal on Security and Communications Networks, China

Communications, and international conferences including IEEE INFOCOM, IEEE GLOBECOM, IEEE ICC, etc.

### **Academic Visit**

- 2015.08-2015.11, Chalmers University of Technology, Host---Prof. Tommy Svensson.
- 2013.12-2015.01, Georgia Institute of Technology, Host---Prof. Gordon L. Stuber (IEEE Fellow).

### **Academic Collaborations**

- Georgia Institute of Technology, USA.
- UC Davis, USA.
- Texas A & M, USA.
- Illinois Insititute of Technology, USA.
- Temple Univeristy, USA.
- University of Reggio Calabria, Italy.
- Chalmers University of Technology, Sweden.
- University of Southampton, UK.
- Aalto University, Finland.
- National Taiwan University.

### **Selected Funded Research Projects**

1. Natural Science Foundation of China Project under Grant No. 61571056, “Research on Multi-objective Wireless Resource Management Based on Socially-Oriented User Clusters and Cross-Domain Cooperation”, 01/2016—12/2019, RMB 764,444, **PI**.
2. National High Technology Research and Development Program of China under Grant No. 2014AA01A701, “Research and Development of 5G Dense Wireless Network Infrastructure and Key Technologies”, 01/2014—12/2016, RMB 23.44 Millions, Co-PI.
3. Natural Science Foundation of China Project under Grant No. 61372117, “Research on Infrastructure and Key Technologies for Green Cognitive Cross-layer Communications Networks”, 01/2014—12/2017, RMB 880,000, Co-PI.
4. *Natural Science Foundation of China Project under Grant No. 61201150, “Research on Energy-efficiency Oriented Cooperative Security Techniques for Wireless Access Networks”, 12/2013—12/2015, RMB 260,000, **PI**.*
5. *Beijing Higher Education Young Talent Initiative, YETP0442, 12/2013—12/2015, RMB 150,000, **PI**.*
6. *Ministry of Education, Special Program for Young Researchers Project under Grant No. 2013RC0202, Secure and Green Transmission Technologies for Future Cooperative Communications”, 01/2013—10/2014, RMB 160,000, **PI**.*
7. *China Mobile Inc., “Research and Development on Junk SMS Monitoring Strategies and Efficacy”, 04/2013—12/2013, RMB 95,000, **PI**.*
8. State Major Science and Technology Special Projects of China under Grant No. 2012ZX03004-001, “Access Technologies and Demonstration for Low Cost Wide Coverage Broadband Networks”, 01/2012—12/2014, RMB 2.124 Millions, Co-PI.
9. China Mobile Inc., “Research on Business Support System (BSS) and Related Techniques”, 11/2011—09/2013, RMB 280,000, Co-PI.
10. *Ministry of Education, Special Program for Young Researchers Project under Grant No. 2011RC0306, “Research on Energy Saving and Smart Router Techniques,” 01/2011—12/2012, RMB 100,000, **PI**.*

11. China Mobile Inc., “Key Technologies of Smart Packet Networks”, 05/2011—07/2013, RMB 319,440, Co-PI.
12. China Mobile Inc., “Research on Key Technologies, Standards, and Testing for SAE Functions and Mutual Interactions”, 12/2010—04/2011, RMB 249,900, Co-PI.
13. *China Mobile Inc., “Next Generation Network Resource Modeling, Distribution, and Management System”, 12/2010—09/2011, RMB 71,900, PI.*
14. Natural Science Foundation of China Project under Grant No. 60971083, “Research on Smart Access Selection and Dynamic QoS Guarantee for Future Cognitive Heterogeneous Networks”, 01/2010—12/2012, RMB 280,000, Co-PI.
15. ***Sino-Canada collaborative project***, supported by Ministry of Science and Technology of China under Grant No. 2010DFA11320, “Key Techniques of Wireless Broadband Green Communications and Related Applications in Smart Grid”, 01/2010—12/2012, RMB 1.7 Millions, Co-PI.
16. ***Sino-Swedish collaborative project***, supported by Ministry of Science and Technology of China under Grant No. 2008DFA12090, “Ad Hoc、Sensor、Mesh and Cooperative Networks: Research on Self-organizing Techniques for Wireless Access Networks”, 07/2008—12/2010, RMB 170,000, Co-PI.
17. National High Technology Research and Development Program of China under Grant No. 2007AA01Z226, “Collaborative Management Techniques for Next Generation Heterogeneous Networks”, 07/2007—12/2009, RMB 930,000, Co-PI.
18. *Intel Inc. of USA under Grant No. 4507384665, “Investigation on unified AAA and efficient handoff in future heterogeneous networks”, 03/2008—09/2009, RMB 70,000, PI.*
19. State Initiative for the National 11th Five-year Plan under Grant No. 2006BAH02A03-05, “Integration of Basic IT Components in Modern Service Industry”, 12/2006—05/2010, RMB 2.9 Millions, Co-PI.

### **Selected Funded Teaching Innovation Projects**

Teaching construction for international graduate students specialized in Electronic Science and Technology. (2014, PI)

### **Courses Taught**

1. Modern Switch Principle (Undergraduate Students)
2. Theories for Computer Communication (Graduate Students)
3. Theories and Technologies for Communication Networks (Undergraduate Students)
4. Essentials of Circuit Analysis (Undergraduate Students)