Fengyu Wang

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No. 10, Xitucheng Road, Haidian District, Beijing 100876, China

Education Background

Beijing University of Posts and Telecommunications (BUPT) **Beijing, China**

B.Eng in Information Engineering, School of Information and Communication Engineering 09/2010-07/2014

- Rank: 6/180+, top 3% GPA: Overall: 3.58/4.0 Major: 3.65/4.0

Beijing University of Posts and Telecommunications (BUPT) **Beijing, China**

M.phil in Signal and Information Processing, School of Information and Communication Engineering 09/2014-04/2017

- Rank: 12/768, top 2% GPA: Overall: 3.49/4.0 Major: 3.6/4.0
- TOEFL 105(Reading 29, Speaking 23, Listening 26, Writing 27) GRE: 316(Verbal 146; Quantitative 170) AWA 3.5

Publications

[1] ***Wang F***, Xu W, Li S, et al. "Outage Probability Analysis of DF Relay Networks with RF Energy Harvesting" in *2015 IEEE Global Communications Conference (GLOBECOM)*. IEEE, 2015: 1-5.

[2] ***Wang F***, Xu W, Lee C, et al. "Energy-Incentive Cooperative Transmission for Wireless Ad hoc Network" accepted by *2016 IEEE Global Communications Conference (GLOBECOM).*

[3] Chen W, Xu W, ***Wang F***, et al. "Energy-Efficient Power Allocation for Simultaneous Wireless Information-and-Energy Multicast in Cognitive OFDM Systems" accepted by *2016 IEEE Personal, Indoor, and Mobile Radio Communications (PIMRC).*

[4] Xu W, ***Wang F***, Lee C, et al. "Energy-Incentive Cooperative Transmission for Wireless Ad hoc Network using Non-orthogonal Access" (to be submitted)

Research & Project Experience

Energy-Efficient Resource Allocation in Wireless Ad hoc Network ***04/2015-present***

Research Assistant, Key Lab of Universal Wireless Communications, Ministry of Education, BUPT

- Clustered paper with a proposed novel incentive scheme for cooperative transmission where energy is used as a reward for cooperative node and give the optimal resource allocation algorithms when channel state information (CSI) is perfectly or partially known by transceivers.
- Give numerical simulations to show the performance gain of given incentive scheme

Performance Analysis of relay network using SWIPT ***09/2014-04/2015***

Research Assistant, Key Lab of Universal Wireless Communications, Ministry of Education, BUPT

- Derive the outage probability of a relay network using simultaneously wireless information and power transfer (SWIPT), where the relay node utilizes power splitting protocol to harvest energy.
- Give the closed forms of the optimal amount of harvested energy and relay location to minimize the overall outage probability.
- Use numerical simulations to verify the theoretical results.

Performance Analysis of HARQ Scheme in Relay System ***12/2013-06/2014***

Graduation Design, Key Lab of Universal Wireless Communications, Ministry of Education, BUPT

- Simulate the outage probability of HARQ with chase combining (CC) and Incremental Redundancy Combing (IR) in both one-way and two-way DF relay system under different maximum times of transmissions.
- Simulate the energy consumption and delay relationship in one-way and two-way relay system where relay node adopts either AF or DF protocol.

Awards

- 2014-2015 first-class excellent academic scholarship & Hengtong Schlorship (Top 2%)
- 2014 Outstanding graduation paper (Top 5%)
- 2012-2013 National Scholarship & Merit Student (Top 2/180+)
- 2011-2012 Samsung scholarship & Merit Student (Top 4/180+)
- 2010-2011 First-class Scholarship of BUPT & Merit Student (Top 10%)

Skills

- **Matlab, C/C++, Latex,** Java, SQL Server