Sun, Jingdong

4000 Enterprise Dr
EMC Lab, Missouri S&T
Rolla, Missouri, 65401

Telephone: (+1) 310-666-2890
Email: sunjing@mst.edu
Homepage: sun-jd.appspot.com

EDUCATION

Missouri University of Science & Technology (Missouri S&T) *Aug. 2016-Present*
Ph.D. Candidate in Electrical and Computer Engineering GPA: 4.0/4.0

Missouri University of Science & Technology (Missouri S&T) *Aug. 2014-May. 2016*
M.S. in Electrical and Computer Engineering GPA: 4.0/4.0

Huazhong University of Science & Technology (HUST) *Sept. 2010-Jun. 2014*
B.S. in Electronics and Information Engineering (Honor Program) GPA: 3.7/4.0

HORNORS AND AWARDS

IEEE EMC Society Best Student EMC Hardware Design Award *Mar. 2015*
First Author. Granted by IEEE Electromagnetic Compatibility Society.

Exceptional Performance in the International EM Proficiency Test *Oct. 2014*
Top 4% among 265 exam takers from Japan, HK, Korea, Taiwan, and U.S.

Graduate Research Assistant Scholarship *Sept. 2014*
Full research scholarship granted by EMC Laboratory, Missouri S&T.

National Prize in Mathematical Modeling Contest CUMCM *Sept. 2012*
Top 5% among all the participates from China, Singapore, and U.S.

WORKING EXPERIENCES

ConvenientPower Systems (CPS), Leading in Wireless Charging *Apr. 2017-Aug. 2018*
Manager, RX System Group *Chengdu, China*

- Provided IC-based wireless power receiver solutions for mobile phones & accessories.
- Developed the world's 1st wireless charging solution for earpods (Meizu POP) with Qi certification.
- Integrated the 1st 10W fast wireless charging function to mobile phone (GIONEE M7P) in China.

H3C Technologies Co., Ltd. *May. 2011-Jan. 2013*
Software Engineer *Wuhan, China*

- Software development (C/C++) in user space and kernel for Linux-based router system.
- Using the CMM methodology, completed HLD and UT cases. Deployed GTest environment.
- Implemented the network quality analyzer based on C for the H3C Comware V7 platform.

ACADEMIC PROJECTS

Simulation of HPM / ESD Effects on Semiconductor Device *Sept. 2016-Apr. 2017*
Research Project at EMC Laboratory *Missouri S&T*

- Analyzed the device physics of failures caused by HPM / ESD injections.
- Predicted the upset events in a particle-level perspective using Monte Carlo method.

Resonance Wireless Power System for Multiple Receiver Devices *May. 2015-Apr. 2016*
Prototype demo at CES, Las Vegas, 2016 *Missouri S&T*

- Implemented both hardware and software of a WPT system based on A4WP standard.

- Capable of charging two phones simultaneously with adaptive efficiency optimization control.

Automated Channel Emulator Based on MEMS Switch *Sept. 2014-Apr. 2016*
M.S. Thesis *Missouri S&T*

- Designed multiple high-frequency transmission line channels with different loss levels.
- Integrated MEMS switch for channel selection by an embedded system running Python.

Wireless Smoke Detection Based on Structure Similarity of Video *Feb. 2014-Jun. 2014*
B.S. Thesis *HUST*

- Designed the smoke detection algorithm using structure similarity of video frames.
- Implemented the hardware and software of the WiFi-UART module to transmit smoke alarm.

Optimal Bandwidth Allocation Algorithm for VoD Streaming *Nov. 2013-Nov. 2015*
Research Project at NEST Lab *HUST*

- Developed an optimal bandwidth allocation topology for hybrid VoD streaming.
- Novel *Demand Driven Max-Flow* formulation and distributed *Free-for-All Push-Lift* algorithm.

Huawei Heat Sink / IC Field Transformation *Jul. 2013-Oct. 2013*
Intern Project at EMC Laboratory *Missouri S&T*

- Constructed an equivalent field source by the near-field scanning technique.
- Developed and validated a far-field transformation procedure for the heat sink / IC structure.

Open-Source Mirror Site in Central China *Feb. 2013-June. 2013*
Technical Lead *HUST Network Center*

- The 1st and largest open-source mirror site in Central China. Completed the rsync synchronizing script (bash), the status updating script (Perl), and the front-end web page (HTML/PHP/Javascript).

RESEARCH

Areas of Interests: signal integrity, wireless power transfer, device modeling, network algorithm.

Publications: 5 peer-reviewed journals and conference papers.

Presentations: 1 talk and 1 poster on CEMC IAB Meeting in 2016 and 2014.

SKILLS

Hardware
Schematic, PCB layout, embedded system
ARM, FPGA, Xilinx Zynq, Intel Galileo

Measurement
Oscilloscope, VNA, SA, TDR measurement
Near-field scanning, and micro-probing

Software
C/C++, Perl, Python, Matlab, HTML/CSS, PHP,
Javascript, TCL/Tk, Verilog, Vim/Emacs, LaTex

Simulation
RF simulation: HFSS, CST, EMC Studio
Circuit simulation: ADS, HSPICE