Jing Lin

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Education	**Doctor of Philosophy, Electrical and Computer Engineering, May 2013 (expected)** The University of Texas at Austin Advisor: Prof. Brian L. Evans GPA: 3.91/4.00 **Masters of Science, Electrical and Computer Engineering, May 2010** The University of Texas at Austin Advisor: Prof. Brian L. Evans GPA: 3.91/4.00 **Bachelors of Science, Electrical Engineering, July 2008** Tsinghua University, China GPA: 89.4/100

Related Courses (Graduate Level)

- Communication and signal processing theory:
Digital Signal Processing, Digital Communications, Modulation and Multiple Access, Estimation theory, Analysis and Design of Communication Networks, Multi-scale and Multi-rate Signal Processing

- Mathematics:
Probabilities and Stochastic Processes, Linear Programming, Stochastic Optimization, Mathematical Statistics, Numerical Analysis

- Embedded System Design and Prototyping:
Embedded System Design and Modeling, VLSI Communication Systems, Wireless Communications Lab

Academic Experience

2010 Fall - Now, **Research Assistant**
Powerline Communications for Enabling Smart Grid Applications
- Medium-voltage/low-voltage powerline channel and noise modeling;
- Impulsive noise mitigation in multicarrier communication systems;
- Powerline communications testbed implementation.
More Details: http://users.ece.utexas.edu/~bevans/projects/plc/index.html

2009 Spring, 2009 Summer and 2010 Spring, **Research Assistant**
MIMO Discrete Multi-tone (DMT) Testbed
- Per-tone channel shortening equalizer implementation;
- Performance and computational complexity tradeoffs in PAPR (peak-to-average power ratio) reduction methods.
More Details: http://users.ece.utexas.edu/~bevans/projects/adsl/index.html

2009 Fall, **Teaching Assistant for Real-time Digital Signal Processing Lab**
Conducted laboratory sessions to guide students in designing and implementing a voiceband transceiver in C on a Texas Instruments TMS320C6713 floating-point programmable digital signal processor. Emphasized design tradeoffs in signal quality vs. implementation complexity.

2008 Fall, **Teaching Assistant for Linear Systems and Signals**

Reviewer for major IEEE conferences:
Global Communications Conference; International Conference on Communications; International Conference on Acoustics, Speech, and Signal Processing; International Conference on Image Processing

Work Experience

05/2011 - 08/2011, **Intern**
Huawei, Wireless Research and Development Center of North America
Developed a mathematical optimization framework (patent pending) for partitioning and scheduling a multi-user UMTS receiver onto multiprocessors.

06/2010 - 08/2010, **Software Engineer Intern**
National Instruments, high-level synthesis team of LabVIEW FPGA;
    Developed a C++ API to generate reliable and efficient circuit implementation in VHDL from LabVIEW FPGA programs.

06/2007 - 08/2007, **Software Engineer Intern**
Institution of Automation, Chinese Academy of Sciences
    Developed Medical Imaging Toolkit (MITK) LINUX version in C++.

Skills

Hardware description languages: VHDL, Verilog HDL
High-level software programming languages: C, C++, Java, Visual Basic
Embedded system design language: SpecC
Assembly languages: TI TMS320C6000 VLIW DSP
Test and measurement: Signal generators, oscilloscopes, spectrum analyzers
Software development environments: Quartus II, Xilinx ISE Foundation, TI Code Composer Studio, Microsoft Visual Studio, Anjuta
Algorithm development environments: Matlab, Simulink, LabVIEW
Subversion control: Perforce, TortoiseSVN
Strong communication skills: oral, written, and presentation

Publications

J. Lin, A. Srivatsa, A. Gerstlauer and B. L. Evans, "**Heterogeneous Multiprocessor Mapping for Real-time Streaming Systems**", *IEEE Int. Conf. on Acoustics, Speech, and Signal Proc.*, May 22-27, 2011, Prague, Czech Republic.
J. Lin, M. Nassar and B. L. Evans, "**Non-Parametric Impulsive Noise Mitigation in OFDM Systems Using Sparse Bayesian Learning**", *IEEE Int. Global Communications Conf.*, Dec. 5-9, 2011, Houston, TX USA.
M. Nassar, J. Lin, Y. Mortazavi, A. Dabak and B. L. Evans, **"Channel Impairments and Impulsive Noise in Local Utility Powerline Communications**", *IEEE Signal Processing Magazine*, submitted Sep. 6, 2011.

Technical Reports

J. Lin, A. Chopra, Y. Mortazavi and B. L. Evans, "**Real-time MIMO-DMT Testbed User Manuals**", Dept. of Electrical and Computer Engineering, The University of Texas at Austin, July 2009

Accomplishments

Second Prize Excellent Academic Performance Scholarship, Tsinghua University

Visa Status

F-1 Student Visa with work permission in the US