RaviTeja Chinta

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Objective: To secure an exciting and challenging position where I can apply my research, analytical and design skills

Education

Master of Science in Electronics and Computer Engineering — Expected May 2009

University of Florida, Gainesville — GPA : **4.0**/4.0

Bachelor of Technology in Electronics and Communication Engineering — April 2007

International(formerly Indian) Institute of Information Technology — GPA : **9.32**/10.00

Publications

G. Sandeep, C Ravi Teja, V U. Reddy and M. Kalyana Krishnan,
"Low Complexity Decoders for Combined Space-Time Block Coding and V-BLAST,"
Wireless Communications and Networking Conference, 2007, WCNC 2007, **IEEE**, March 2007 Pages: 582 – 587.
http://ieeexplore.ieee.org/iel5/4204175/4204176/04204289.pdf

Academic Achievements

- Team awarded **first prize** in IIIT Software Presentation contest for developing a Virtual Microprocessor of Motorola MC 6802.
- **Academic Achievement Certificate** from University of Florida Int'l Center
- Featured in **Dean's List** at Int'l Institute of Information Technology –Hyderabad (IIIT-H)
- Recipient of prestigious Pratibha Scholarship from the Government of Andhra Pradesh for **all** the academic years at IIIT-H.

Experience

- **Intern, Summer Research**, Hellosoft India, Hyderabad — May'06 – Jul'06
  - Worked on designing Low-Complexity Decoders for 3Tx-2Rx option in IEEE 802.11n WLAN standard.
- **Teaching Assistant** for **Communications Lab** — Aug'08 – **present**
  - Guide students in experiments on basic communication system hardware and measurement equipment such as spectrum analyzer and ocsilloscope
- **Teaching Assistant** for Intro to Signals and Systems course — Jan'08 – Aug'08
  - This work includes grading homeworks and holding office hours
- **Assistantship,** Communications Research Center – IIIT, Hyderabad — Jul'05 – Sep'05
  - Assisted the course instructor in designing experiments in SIMULINK for Communications Lab, which is a part of Analog and Digital Communications class.
- **Teaching Assistant** for Electronics Circuits course, IIIT Hyderabad — Dec'04 – Apr'05
  - Conducted classroom sessions in problem solving, lab sessions and graded HWs.

Leadership/Extra-curricular activities

- Part of ASHA and Team ASHA UFlorida chapter – raise funds for the education of underprivileged children.
- **Co-founder** of IIIT Robotics Club and organized a workshop which was attended by students from national reputed institutes.
- Earned third prize in EquityPulse'06(part of Felicity '06) - simulated online stock market.
- **Co-organizer** of 4 national level technical events in Threads-06 part of annual fest of International Institute of Information Technology.
- **Volunteer** in hospitality section for Felicity-05, annual fest of International Institute of Information Technology.

Projects

Testbed implementation of adaptive MAC/Link-Layer protocols to combat Jamming in Wireless Adhoc Networks

Guide: Dr John Shea and Dr Tan Wong

Abstract: WLAN systems are vulnerable to a denial of service attack due to inherent assumption of well-behaved users. CSMA/CA along with an ARQ protocol used in WLAN system requires a user to retransmit its packet when lost.

Low Complexity decoders for Combined Space-Time Block Coding and V-BLAST

Guide: Prof. V U Reddy

Abstract: This project involved designing low complexity decoding schemes for combined space time block coding and V-BLAST for a 3Tx-2Rx MIMO option in Enhanced Wireless Consortium draft for *IEEE 802.11n*. The structure of the transmitted data is exploited while developing the schemes. They are developed for a *frequency flat* and *frequency selective* fading scenarios and the *diversity* orders they yield are analyzed and also extended for OFDM based systems. The effect of spatial correlation is also studied.

Study and Simulation of Physical Layer of DSL Systems

Guide: Prof. V U Reddy

Abstract: In this project we have studied the *Multi Carrier Modulation* (MCM) schemes with emphasis on Time Domain Equalization (TEQ) and Bit-Loading algorithms for the *colored* noise floor.

Term Projects

Implementation of an adaptive IIR Filter for Howling Control

Guide: Prof. Krishna Nagarajan

Abstract: The phenomenon of unwanted sinusoids of arbitrary frequencies interfering with the desired signal is referred to as Howling. In this project, we designed and implemented an adaptive IIR filter which can track the sinusoids and eliminate them.

Implementation of a Virtual Microprocessor - Motorola MC6802

Guide: Prof. K V Ranga Rao

Abstract: This Project involved implementation of the instruction set of Motorola MC6802 µ-processor and a user friendly graphical interface using which any instruction can be emulated. We have also implemented a Numerically Controlled Oscillator on the virtual machine we developed. This project received the first prize in IIIT Software presentation contest, Threads'06(IIIT annual Tech fest).

Direction Finding Antenna
Guide: Prof K V Ranga Rao

Implementation of Pipelined Multiplier-less FFT using SOPOT coefficients
Guide: Prof MB Srinivas

Others include Wavelet-based Personal identification, Study of OFDM, Detection of Capacitive Change, BCD clock, 3-band audio amplifier, Electronic mosquito repellent.

Technical Skill Set

Programming Languages	C, HTML, C++(intro level)
Computational tools	MATLAB, Simulink, Scilab, Pspice, Multisim, Commsim
Operating Systems	Windows 9x/XP, Linux
Document editors	MS Office, LaTex

Relevant coursework

AT UF: Digital Communications, Wireless Communications, Noise in Linear Systems, BiPolar Analog IC Design, VLSI circuits and technology, Computer Communications, Digital Filtering

At IIIT, graduate level: Adaptive Signal Processing, Multirate Signal Processing, Wavelets, Coding on Trellises and Graphs, Signal Detection and Estimation Theory.

At IIIT: Linear Algebra, Probability and Stochastic Processes, Signals and Systems, Analog and Digital Communication, Digital Signal Processing, Communication Networks, Guided Waves and Radiating Systems, Transmission Lines, Information theory and Coding.

References available on request