

SUNDAR PICHAJ

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SUMMARY

Electrical and Computer Engineering graduate student with strong technical and engineering skills in RF and Wireless Engineering. Possess the analytical abilities necessary for designing, developing and testing RF circuits. Gained exposure to key concepts in modern wireless communications by training with major telecom company. Hands on experience working with circuits like oscillators, mixers, amplifiers, RF network analyzer, spectrum analyzer.

EDUCATION

University of Illinois at Chicago (UIC) - Chicago, IL May 2017 (Expected)
Master of Science in Electrical and Computer Engineering GPA: 3.63/4.0

Vellore Institute of Technology (VIT) - Vellore, India May 2015
Bachelor of Science in Electronic and Communication Engineering GPA: 3.7/4.0

TECHNICAL SKILLS

Hardware: Amplifiers, Mixers, RF Network Analyzers, RF Filters- SAW, BAW, Spectrum analyzers, Oscilloscopes, Resonant circuits, RF oscillators: PLL, Voltage-controlled oscillator, Transmitters.

Software: MATLAB, Simulink, LTSpice, AWR, Labview, FEKO, Altera Quartus, Atalanta (ATPG Tool), Microsoft Word, Excel, PowerPoint, C, C++ and Linux.

LABORATORY WORK

RF and Microwave Lab, Electrical and Computer Engineering Department, UIC February 2016 – Present
Research Assistant

- Conducted experiments using waveguide tees and directional couplers, impedance matching using smith charts, Frequency synthesizer characteristics measurement, S-Parameters and Slotted line measurements.
- Measurements were performed using FieldFox handheld RF and Microwave analyzer.

INDUSTRY EXPERIENCE

Bharat Sanchar Nigam Limited (BSNL) - Hyderabad Area, India Oct 2015-Dec 2015
Engineering Intern

- Obtained knowledge on key wireless concepts such as: - Digital Switching Principles (PCM Principles, CAS, CCS7 and latest switches in telecom industry), Fiber Optic Communication Principle (Concepts on SDH and DWDM), Mobile communication Principles (GSM, GPRS, EDGE, CDMA, 3G Technologies).
- Gained practical exposure on latest equipment's in telecom such as: - Telecom Switch- CDOT, OF Systems- SDH, DWDM, Mobile Equipment- 2G GSM, CDMA, 3G Mobile, Broadband, Networking Equipment, OFC Station, GSM/CDMA Installations.

ACADEMIC PROJECTS

Designed and Simulated a Microstrip impedance matching circuit using FEKO: Impedance matching on Microstrip line was performed using single stub tuning method with help of smith charts. The circuit was designed and simulated using FEKO.

Designed an impedance matching circuit using FEKO: A microstrip line was matched using single stub tuning method. The impedance matching was performed using smith chart. The microstrip line was designed, developed and simulated using FEKO software. The results were successfully obtained.

Design of low-pass elliptical filters by means of cascaded microstrip rectangular elements using AWR Microwave Office: It is shown that pass band attenuation even lower than that of the prototype can be achieved through a simple adjusting procedure for compensating the reactance due to higher order resonant modes.

ACHIEVEMENTS

- Ranked 25th among 450 students in class of 2015 from VIT
- 1st prize in ECE technical quiz in inter-school quiz competition at Audishankara engineering college
- Placed in top 10 students for ECE RF engineering competition sponsored by IAETSD