NUTANGI PRAVEEN KUMAR | EE08B062

Indian Institute of Technology Madras

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EDUCATION

Program	Institution	%/CGPA	Year of completion
Dual Degree in Electrical Engineering with MTech in Communication	IIT Madras	6.04	2013
Class XII	Narayana Junior College	89.3	2008
Class X	Space central school	80.1	2005

SCHOLASTIC ACHIEVEMENTS

- AIR: 111(Category) in IIT-JEE 2008

COURSE WORK

- Networks and Systems
- Analog Circuits
- Communication Networks
- Digital Communication Systems
- Wireless and Cellular Communications
- Information Theory
- Electromagnetic Fields
- Digital Systems
- Computer Organization and Microprocessors
- Solid State Devices
- Control Engineering
- Analog Communication Systems
- Analog and Digital Signal Processing
- Power Systems

LABS

- Digital Circuits Lab
- Microprocessor Laboratory
- Advanced EE Laboratory
- Electrical Machines Laboratory
- Analog Circuits Lab
- Advanced Communication Laboratory

PROFESSIONAL EXPERIENCE

ISRO Satellite Centre, Bangalore (**May 2011 – June 2011)**

Worked as a research analyst under the guidance of Mr. Hemanth Kumar Reddy (Scientist Engineer F) on improving the design of C- Band and S Band Transponders.

PROJECTS

- Dual Degree Project
  - Topic: Effect of Femtocells on Macrocells in Different Frequency Re-use Schemes
  - Duration: June 2012 – May 2013
  - Project guide: Dr. Arun Pachai Kannu,
  - Project Description:

    Generally the users who experience low SINR will be the edge users and this is proved using simulation for the following frequency reuse approaches: UFR, 1/3 Frequency Reuse, FFR, and SFR. The SINR of those users is drastically improved by deploying femtocells thus creating a femtocell region around those users. The SINR for the femto users and macro users in presence of femtocells and without femtocells was calculated for all the above frequency reuse approaches and it turned out that SINR experienced by those users is drastically increased if it is served by femtocell rather than macrocell. But the major trade off after deploying femtocells is for the macro users just outside the Femto- cell region because of the huge interference from the Femto-base stations and thus getting their SINR decreased drastically. The optimal distance between the macro user to femtocell so that interference from that corresponding femto base station is nullified turned out to be around 200m for path loss factor 3.5.
- Class D amplifier
  - Designed Class-D amplifier and implemented it on breadboard.

SKILLS

- Proficient at coding in C, Matlab.
- Working knowledge of C#, Verilog, Assembly (Blackfin, BF609).
- Documenting Tools: Lyx, Microsoft Office.

EXTRA-CURRICULAR ACTIVITIES

- Champions – Freshers Football tournament, IIT Madras. Captain of the freshers team which won the tournament.
- Captain of Tapti House in 10^{th} class and won overall competition (among 4 houses) which includes CCA(Co-Curricular activities) and Sports.

OBJECTIVE

- To work in a stimulating and challenging environment that will enable me to use my conceptual skills and expose me to continuous learning and opportunities.