



Hari Sindhu
Electrical Engineering
Indian Institute of Technology, Bombay
Specialization: Microelectronics

08D07045
UG Third Year(Dual Degree)
Female
DOB: 09/04/1992

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	8.20
Intermediate/+2	Board of Intermediate,AP	Vijaya Ratna junior college	2008	96.00
Matriculation	Board of Secondary Education	St. Anthony's High School	2006	92.50

Scholastic achievements

IIT-JEE 2008	I secured an All India Rank -215 out of about 300,000 students who wrote IIT JEE 2008, the prestigious entrance examination for undergraduate admission into IITs.
ANCQ 2007	I Secured high distinction in Australian National Chemistry Quiz (Senior Division) conducted by Royal Australian Chemical Institute founded by John Dalton.
NSO 2005	Secured first rank in state in the National Science Olympiad in 2005 and a national rank of 45.
NSTSE 2006	Secured state fourth in National Science Talent Search Examination in 2006

Academic projects

May 2010 –till date Guide: Prof. Maryam S. Baghini	Analog circuit design automation Exploring a new method for automatic design of analog circuits based on behavioral model, which can generate topologies other than those in the library. By this method we could generate two new topologies for instrumentation amplifier with comparable specifications to that of standard topologies.
May 2009 June 2009 Guide: Ch.Engineer K.S.V.Prasad Rao	Optimisation of radiation pattern of Yagi-Uda antenna Analysed, and simulated the radiation pattern of Yagi-Uda antenna in MATLAB and obtained optimal parameters for 3 element Yagi Uda antenna at a given frequency

Course projects

October 2010 Dec 2010 Guide:Prof. Shalabh Gupta	Operational Amplifier design Designed a low power op amp(1.8 mW) with open loop gain 1500, phase margin 60° and low settling time
Jan 2010 April 2010 Guide: Prof. V.M.Gadre	Analysing the motility of molecular motors Analysed the movement of a molecular motor kinesin on a microtubule and used DFT and other signals and systems concepts to estimate the average speed of kinesin
Jan 2010 – Dec 2010 Guide: Prof. V.M.Gadre	Image Restoration Modeled blurring as a LSI system and restored blurred images using inverse filtering methods. Also added random noise and restored the image using mean and median filtering in C++ using CImg library.

Aug 2010 – Oct 2010 Guide: Prof. S.N.Merchant	Reconstruction of sinusoids Used annihilation filtering to reconstruct a signal containing complex exponentials using least number of samples and implemented the ESPRIT algorithm to estimate the signal from the samples containing white noise in MATLAB
Jan 2010 – April 2010 Guide: Prof. Sridhar Iyer	Tomographic Reconstruction Tomographic reconstruction using sparse matrix based algorithms which are more efficient in terms of space and time complexity.
Aug 2008 – Nov 2008 Guide: Prof. Abhiram Ranade	Library Database Management Designed an efficient algorithm in C++, to effectively manage library database

Research interests

Analog circuit design	Algorithm design
Fuzzy logic and Artificial neural networks	Optimisation
Computer architecture and hardware languages	Nanoelectronics

Relevant Courses

CMOS Analog VLSI design	Analog circuits
Introduction to nanotechnology	Digital Systems and Microprocessors
Network theory, Graph theory	C++, Data structures and algorithms
Networks, Games and algorithms	Design and analysis of algorithms
Electronic devices and circuits	Physics of transistors
Probability and Stochastic processes	Signals – Systems and Communication systems
Digital Signal processing	Digital communications

Software competencies

Cadence	MATLAB	C++	Verilog
LTspice	Eagle	L ^A T _E X	SQL

Extracurricular activities

Received special appreciation for my work in NSS(National service scheme) in 2009

Participated in CONCREaTE, a competition held by Techfest 2009, Asias Largest College Technical Festival, and made a 0.97 kg weighing suspension bridge with popsicle sticks which could withstand weights upto 10 kg.

Served as Co-ordinator for ANTZ, swarm robotics competition with international participation in Techfest-2010

Interested in various traditions and languages and have been learning **French** language from past six months.

Participated in various inter-hostel technical events and served as **technical mentor** of the hostel for the year 2009-10

Participated in inter hostel fine arts competitions and college fine arts competitions