SCHOLASTIC ACHIEVEMENTS

* Secured All India Rank 88 in IIT-JEE 2008 competing with more than 3 lakh students
* Secured State Rank 25 and All India Rank 160 in AIEEE 2008 among more than 9 lakh students appeared
* Amongst National top 1% in the Indian National Physics Olympiad-2008
* Amongst National top 1% in the Indian National Chemistry Olympiad-2008
* Amongst National top 1% in the Indian National Astronomy Olympiad-2008
* 59th Rank – National level Science Talent Search Examination 2007 conducted by Unified council, Hyderabad

KEY SCHOLARSHIPS

* NTSE Scholar: National Talent Search Scholarship-2006 given by NCERT, New Delhi
* AIEEE Merit Scholarship: Given by CBSE, Delhi for excellence in AIEEE-2008
* Heritage Fund Scholarship: Awarded by IIT Bombay for academic excellance for the year 2009-10
* Rajasthan Talent Scholarship awarded by Saraswati Shiksha Sansthan for all round performance for three years consecutively
* Received Book Grant Scholarship by FIITJEE, Delhi for excellence in IIT-JEE 2008

INDUSTRIAL EXPERIENCE

QUALCOMM PVT.LTD., Memory Cell Unit: Bangalore design center, India

[May’11-July’11]

* Awarded Pre Placement Offer by Qualcomm
* Made a comparative study of device characteristics in LP and HPm technologies for migration from 45 nm to 28 nm
* Arrived at low power loss and delay reduction with HPm for a 6-inverter chain and a reduced cell ratio and silicon area for HPm
* Employed Monte Carlo simulations and optimized memory cell dimensions to surpass trade off results and local mismatch in fabrication
* Computed cell ratios for different logics for same worst case delay, used the results to arrive at the best design for a 4-16 decoder

ICICI BANK LTD., Global Risk Management Group: BKC office, Mumbai [Dec’10]

* Categorized the financial structure in an economy by graph theoretical model and identified parameters to judge Systemically Important Financial institutions (SIFs)
* Devised algorithm to estimate correlation factor for contagion spread by bank runs(small/large)
* Assisted the team in forecasting market forces using Artificial Neural Network (ANN) approach as a benchmark linear/non linear model
* Derived and simulated correlations between bank solvency and the performance of SIFs

KEY ACADEMIC PROJECTS UNDERTAKEN

BTP phase 1

* Working on neural network to optimize and design for maximum spectrum efficiency
* The design would allow for utilization of the unused spectrum

SPEECH SIGNAL MODELLING Jan-April’10

* Analyzed the model of human speech production using Source-Filter Theory
* Studied final output spectrum as convolution of source spectrum and filter function
* Application: Used a speech processing software: PRAAT to differentiate between male and female voice using formant frequencies, instantaneous pitch curve etc.

DIGITAL COMMUNICATION SYSTEM Jan-April’10

* Had 3 users and a central controlling unit for 4-bit data transmission to and fro using data lines via user friendly switch controlled mechanism
* Developed logics for 16 possible cases using shift registers, multiplexers and logic gates

SCIENTIFIC CALCULATOR July-Nov’08

* Devised a user friendly mechanism employing graphics library for button effects
* Ensured calculations as per BODMAS rule, round off upto 3 decimal places

TECHNICAL SKILLS

Programming languages: C, C++

Software Packages: MATLAB, HSPICE, MENTOR-GRAPHICS

Microcontrollers: 8085, 8051

POSITIONS OF RESPONSIBILITY

Sports Secretary, Hostel-5, IIT Bombay: July’09-April’10

* Organized intra hostel events in football, cricket, TT, chess and carom to develop

enthusiasm among hostelites, extracted best players for General Championship

* Kept an account of sports inventories, equipments and first-aid kits throughout the year, arranged for the same during inter hostel events
* Ensured practice sessions for the players before actual GC’s and maximum participation in open events like crossy and tug of war to achieve participation points
* Assisted in the maintenance and development of the hostel grounds
* Uplifted the hostel standings at sports GC to 4th position from 9th position previously

Coordinator, Exhibitions Infrastructure Dept., Techfest 2010:

* Handled and assisted in electronic and material requirements by foreign exhibitors and researchers from IIT Bombay
* Led a team of organizers to handle the wear and tear for four days

EXTRA CURRICULAR ACTIVITIES

* Trained in basketball through NSO during freshman year at IIT Bombay
* Developed an autonomous bot that could traverse through a white lined track with numerous curves
* Represented hostel in sports GC’s in Basketball, Chess and cross country race
* Volunteered in the Performance Arts Festival for the production team of the Hostel
* Encouraged by Humanities Dept. at IIT Bombay, made a trip to area around Dadar suburban railway station to analyse and address the problems faced by street dwellers
* Enthusiastic about counselling JEE aspirants at coaching centers in free time