

SCHOLASTIC
ACHIEVEMENTS

- Currently **Department Rank 1** (in a batch of 89) and **Institute Rank 3**
- **Silver Medallist** (World Rank 41) at **International Physics Olympiad 2010** held in Croatia involving around 380 students from 80 nations
- **All India Rank 5** in IIT-JEE 2010 among 4.5 lakh candidates
- **All India Rank 1** in AIEEE 2010 among a million candidates
- Represented India at **Asian Science Camp '09**, Japan attended by 7 Nobel laureates and 200 students from all over Asia
- Awarded **AP grade** for exceptional performance in the courses *Modern Physics*, *Economics* and *Computer Programming and Utilization* at IIT Bombay
- Certificate of Merit and Gold medal in **Indian National Olympiads in Physics and Chemistry**, 2010 for being among the *top 35* in both
- Selected for the *Orientation cum Selection Camp* for the **International Olympiad on Astronomy and Astrophysics 2010**
- **CBSE Merit Certificate** in Physics, Chemistry and Mathematics for being in the top 0.1% in India in each subject in AISSCE-2010
- *Invited by the HRD Ministry*, Government of India to witness the Republic Day parade 2011 from the **Prime Minister's box**
- **All India Rank 1** in 5th and 8th National Cyber Olympiads and 3rd International Mathematics Olympiad conducted by Science Olympiad Foundation, Delhi
- **All India Rank 1** in National Science Talent Search Exam 2009 conducted by Unified Council, Hyderabad
- **All India Rank 2** in the 12th National Science Olympiad and 7 other single-digit ranks in such national-level exams since VIth standard
- High Distinction in **Australian National Chemistry Quiz** in 2007 and 2008

SCHOLARSHIPS

- **KVPY** (Kishore Vaigyanik Protsahan Yojana) scholar during 2009-10
- Awarded the **Institute Academic Prize** for the session 2010-11 by IIT Bombay
- **NTSE** (National Talent Search Exam conducted by NCERT) scholar since 2008
- Conferred an award of *Rs. 80000* by **Rural Electrification Corporation**, India for bagging a silver medal at IPhO 2010
- **Sarvotam** scholarship granted by SAIL for the academic year 2010-11
- FIITJEE, New Delhi's scholarship of *Rs 1.5 lakh per annum* for 4 years for being in the top 10 all over India in IITJEE-2010

PROJECTS
UNDERTAKEN

Quantum Computer Simulator *Guide : Prof. Amitabha Sanyal* **Spring 2011**

Developed a *debugger-cum-simulator* in DrScheme for building quantum networks using *binary trees and higher order functions*. Also implemented algorithms such as Grover's, Deutsch-Jozsa and Fast Fourier Transform

Self Learning Robotic Leg

Summer 2011

Built under the *Electronics Club Summer Project* at IIT Bombay, it is a robot with two degrees of freedom which generates by trial and error a database of all stable positions, and when given a certain goal, is able to apply the same to achieve it.

Intel 8085 Simulator *Guide : Prof. Deepak B. Phatak* **Autumn 2010**

Developed in C++ with a *3-level debugger*. The graphical interface is a complete IDE, the user can compose programs, save and retrieve them from disk.

Quantum Network Design **August 2011-**

An ongoing project mentored by Prof. Prasanta Panigrahi (Dept of Physical Sciences, IISER Kolkata) and co-mentored by Prof. Vijay Singh (HBCSE, Mumbai). It is under HBCSE's National Initiative on Undergraduate Science program, 2011.

POSITIONS OF
RESPONSIBILITY
AND WORK
EXPERIENCE

- Mentored nearly 3000 students (mostly JEE aspirants) nationwide through live seminars under **Quality Education for All**, a company founded by IITians
- **Teaching Assistant** for CS 101 course in autumn semester 2011 under Prof. D.B.Phatak, guiding students and teaching them C++ basics
- **Hostel Secretary** for Technical Activities for the session 2011-12

EXTRA
CURRICULAR
ACTIVITIES

- *2nd* in East Zone and **National Semi-finalist** at **India's Child Genius Quiz** hosted by Shri *Siddhartha Basu* in 2004
- Winner of **BRAINZ Mental Ability Quiz** at COFAS 2007 at CMS Lucknow
- Winner of the *1st* **Tata Inter School Quiz** in 2007
- East Zone Quarter-finalist at **ESPN School Quiz** 2005 hosted by *Harsha Bhogle*
- National Semi-finalist in **Eicher Skyline Quiz** 2005
- Reached the national round of Prof. Brahm Prakash Memorial **Materials Quiz** 2008 held at **Indira Gandhi Centre for Atomic Research**, Kalpakkam
- *3rd* in **Indian Sudoku Championship** at TechFest 2011 at IIT Bombay
- *2nd* in **Integration Bee** at Techfest 2011
- **Hostel Technical Special Mention** for the academic session 2010-11
- Completed the **Sumo Challenge** at Children's Technology Workshop conducted by Lego Robotics at IIT Bombay in August 2010
- Completed the **Swarm Robotics** Workshop at Aagomani, 2011 at IIT Bombay
- Represented Kenya in General Assembly at **DPS Model United Nations-2007** organised by UNA-USA at India Habitat Centre, New Delhi
- Awarded the Consolation Prize in the "**Chhattisgarh of My Dreams**" essay contest for college-going students *while in the Vth standard*
- Winner of **World Population Day Debate** 2006 organised by Bhilai Steel Plant
- Gold Medallist in **Kartab All-India Children Colour Contest**
- Silver Medallist in **Avantika International Talent Search Essay Contest**

KEY COURSES
UNDERTAKEN

Core	Breadth
Abstractions and Paradigms in Programming	Calculus
Computer Programming and Utilization	Economics
Cryptography and Network Securities*	Numerical Analysis*
Design and Analysis of Algorithms*	Chemistry and Modern Physics
Data Structures and Algorithms	Data Analysis and Interpretation
Automata Theory and Logic*	Introduction to Probability Theory
Discrete Structures	Engineering Graphics and Drawing
Software Systems*	Linear Algebra and Differential Equations
Logic Design*	Introduction to Electric and Electronics Circuits

Note: The * marked courses will be completed by April 2012.

SKILLS AND
INTERESTS

- **C++**, **Python**, **MIT-Scheme**, $\text{\LaTeX} 2_{\epsilon}$, Eagle and Spice
- Cryptography and Game Puzzles like Sudoku, Kakuro, etc.
- Quizzing and Photography
- Quantum Mechanics and Modern Physics