



Ishan Anand
Electrical Engineering
Indian Institute of Technology Bombay

110070057
UG Third Year (B.Tech.)
Male
DOB: 25 April 1994

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2014	8.73
Intermediate/+2	CBSE	DAV Public School, Amritsar	2011	90.40
Matriculation	CBSE	DAV Public School, Amritsar	2009	96.80

ACADEMIC BACKGROUND

- Secured **All India Rank 58** in IITJEE 2011, among 0.5 million students. (APRIL 2011)
- Secured **All India Rank 23** in AIEEE 2011, given by roughly 1.1 million candidates. (APRIL 2011)
- Recipient of **NTSE (National Talent Search Examination) Scholarship** awarded by NCERT, New Delhi. (2007 - PRESENT)
- Selected for **KVPY (Kishore Vaigyanik Protsahan Yojana) fellowship** awarded by the Department of Science and Technology, Government of India. (2010)
- Selected **among top 1% candidates** in National Standard Exam in Physics and National Standard Exam in Chemistry and qualified for **Indian National Physics and Chemistry Olympiads**, respectively. (2011)
- Cleared Regional Mathematics Olympiad and qualified for INMO (Indian National Mathematics Olympiad), conducted by HBCSE. (2010)
- Secured **All India Rank 21** in **National Cyber Olympiad (NCO-2007)** conducted by Science Olympiad Foundation, New Delhi. (2007)

PROJECTS/ TECHNICAL ACTIVITIES

- Control Theory Problem**
Currently working on finding Convex functions which behave similar to the Mutual Information function, specifically that share the Data Processing Inequality and Convexity/concavity properties. The problem broadly concerns optimizing the cost function for some Stochastic control systems. **GUIDE: Professor Ankur Kulkarni (SUMMER 2013-PRESENT)**
- Digital Systems Lab Project**
Developed a clone of the classic Space Impact game on a 128 x 64 Graphical LCD screen using a Krypton CPLD board. The Program code was implemented in Verilog HDL using the Altera Quartus environment and On-board controls were used to interact with the Program. (SPRING 2013)
- Communication Systems Lab Project** (AUTUMN 2013)
Designed a FM modulation system using a discrete component *Colpitts oscillator* circuit, employing feedback from an LC tank to center the message signal around 24 MHz . Frequency deviations in transmission were obtained by varying the input voltage across a variable capacitance while the receiver circuit used a *Phase locked loop* to demodulate.
- Freshman Technical Competitions** (AUTUMN 2011)
Designed and built a wireless Remote controlled vehicle employing an RF receiver circuit in a team of four.
Developed and built an autonomous line follower bot utilizing an Arduino Microcontroller board, adjudged 4th in the event.

RELEVANT COURSES

(*) = *ongoing*

Quantum Information and Computing	Linear and Nonlinear Systems	Microprocessors
Network Flow Models and Applications*	Communication Systems	Signals and Feedback Systems
Mathematical Structures for Systems and Control	Introduction to Linear Filtering*	Differential Geometric Methods in Control*

SOFTWARE KNOWLEDGE/TECHNICAL SKILLS

- Programming Languages- C++, Java, Python, Assembly, Verilog HDL
- Markup Languages/Web Technologies- Latex, HTML, CSS, JavaScript
- Computing/ Simulation Environments- MATLAB, R, SPICE, Quartus

EXTRA-CURRICULAR ACTIVITIES

QUIZZING

- **Bagged 3rd position** at the National Finals of **CBSE Heritage India Quiz** 2009 among more than 3000 participating schools from all over the country.
- **Placed 4th at Scimind India**, a national level television Science Quiz show sponsored by the Department of Science and Technology, Govt. of India.
- **Reached the Nationals** and stood 2nd in the Zonal rounds of the General Quiz competition at the Annual **DAV Youth Festival**.
- Part of the winning team in **Science Trivia Quiz** organized by Maths and Physics Club, IIT Bombay in freshman year.

POSITIONS OF RESPONSIBILITY

- Worked as **Cultural Secretary** for Library at Hostel 13 in sophomore year.
- Served as an NSS (**National Social Service**) Volunteer during 2011-12, helping participants at a Computer Learning Centre, managed by NGO Vidya.