



Aravindh K
Electrical Engineering
Indian Institute of Technology Bombay

120070059
UG Second Year
Male
DOB: 14/03/1995

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2014	9.62
Intermediate/+2	Central Board of Secondary Education	Maharishi Vidya Mandir Senior Secondary School	2012	94.20
Matriculation	Council for the Indian School Certificate Examinations	The Vikasa School	2010	94.86

KEY SCHOLASTIC ACHIEVEMENTS:

- Secured **All India Rank 73** in IIT-JEE 2012 (in top 0.01%) among around 500,000 candidates; Tamil Nadu State Rank 4
- Secured **All India Rank 77** in AIEEE 2012 among 1.2 million candidates; State Rank 3
- Attended the **Orientation-cum-Selection Camp for IPhO 2012**, among the **top 35** of the 40,000 candidates (top 0.1%) in the Indian Physics Olympiad
- Offered the prestigious **KVPY Scholarship 2012** (Kishore Vaigyanik Protsahan Yojana, instituted by Department of Science and Technology, Govt. of India), **All India Rank 4**
- Scored a **Semester Performance Index** of 10 in the Spring Semester 2013

PROJECTS UNDERTAKEN:

TOUCH OVERLAY FOR LAPTOPS

(May 2013 – June 2013)

Designed an **electronic frame** which when placed on laptop screen converts it into a touchscreen

- Made a touch frame using infrared sensors and emitters to make use of the touch capabilities of the Windows 8 operating system on laptops that don't have touchscreen
- Worked on multiplexers, **AVR microcontroller** and infrared emitters and sensors
- Developed scripts using Python and **Windows API** for generating cursor movements and actions

SCIENTIFIC COMPUTATION MODULE IN C++

(Spring 2013)

Developed an **integrated scientific operations module** on C++ to perform all common scientific operations

- Functionalities include operations in matrix algebra, statistics, **parsing of scientific expressions** and real analysis
- Provides high level of extensibility due to its **modularity**

LINE FOLLOWER ROBOT

(Autumn 2012)

- Made a line follower, implementing the **Proportional-Integral-Derivative** algorithm, using arduino microcontroller, a TSOP proximity sensor and ambient sensors

MOBILE PROJECTILE LAUNCHER AND RADIO-CONTROLLED CAR

(Autumn 2012)

- Made a vehicle fitted with a projectile launcher, capable of shooting projectiles over a distance of 1 meter
- Made a radio-controlled car as part of a freshmen competition

TECHNICAL SKILLS

General Programming languages	C, C++, Java, Python
Scientific computing	MATLAB, Octave
Circuit Simulation and Design	NGSpice, Eagle, VHDL
Others	Arduino, AVR Programming, HTML/CSS, AutoCAD

COURSES TAKEN

ELECTRICAL ENGINEERING (pursuing Honors)

Introduction to Electrical Systems	Electrical Machines and Power Electronics*	Network Theory	Electronic Devices	Introduction to Electronics
A First Course in Optimization	Special Semiconductor Devices*	Analog Circuits*	Signals and System*	Digital systems*

COMPUTER SCIENCE AND ENGINEERING (pursuing Minor)

Computer Programming and Utilization	Discrete Structures	Data Structures and Algorithms*
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OTHER COURSES

Calculus	Linear Algebra	Differential Equations	Complex Analysis
Data Analysis and Interpretation	Physical, Inorganic and Organic Chemistry	Economics	Electricity and Magnetism
Electronic Devices Lab	Digital Circuits Lab*	Analog Lab*	Machines Lab*

**Courses that are currently taken and will be completed by April 2014*

OTHER SCHOLASTIC ACHIEVEMENTS

- Offered admission to **Chennai Mathematical Institute** (CMI) for academic excellence, exempt from taking entrance exam
- Awarded **AP grade** for exceptional performance in Computer Programming and Utilization course at IIT Bombay
- Qualified for **Scholarship for Higher Education** under INSPIRE (a Government of India program) by getting into top 1% of All India Senior School Certificate Exam (AISSE) 2012
- Receiving a scholarship for higher education from FIITJEE

POSITIONS OF RESPONSIBILITY

- Hostel Coordinator, Tamil Cultural Association, IIT Bombay (2013-2014)
- Coordinator, Aagomani 2013, IIT Bombay
- Organizer, Creatives Department, Techfest 2013, IIT Bombay
- Organizer, E-Summit 2013, IIT Bombay

EXTRACURRICULAR ACTIVITIES

- Trained in Karate for 7 years, currently a **black belt holder**
- Won a **silver medal** in the State Level Karate Championships 2005 and represented my district in the **12th All Martial Arts Open Championship** and the **IV State Wushu Championships**
- Completed a yearlong course on Swimming offered by National Sports Organization and participated in **Swimathon**, a swimming marathon, covering 7 kilometers in 4 hours