



Srivatsan Sridhar
Electrical Engineering
Indian Institute of Technology Bombay

150070005
UG Third Year (B.Tech.)
Male
DOB: 09/08/1997

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2018	9.81
Intermediate/+2	Maharashtra State Board	Pace Junior Science College Thane	2015	94.46
Matriculation	ICSE	Hiranandani Foundation School Thane	2013	96.50

SCHOLASTIC ACHIEVEMENTS

- **Department Rank 1** (among 132 students) after the 1st and 2nd years of B.Tech. [‘16,’17]
- Awarded **Urvish Medh Memorial and Aditya Choubey Memorial Prizes** along with Rs. 6000 cash prize **by EE Dept.**, for exemplary academic performance [‘16]
- Received **AP (Advanced Performer) Grade** in 8 courses (top 1-10 among 250 students) [‘15-‘17]
- Pursuing a **minor degree** in Computer Science and Engineering a IIT Bombay [‘16-]
- Awarded **INSPIRE** scholarship for science for placing in top 1% of Maharashtra State Board [‘15]
- Secured **AIR 50** (1.3 M candidates) in JEE Main, **AIR 137** (150 K candidates) in JEE Advanced [‘15]
- Ranked in **top 1%** in **National Standard Examination in Physics (NSEP)** [‘14-‘15]
- Received the **Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship** by Indian Institute of Science (IISc) with an **AIR of 57** out of 579 selected students [‘13]
- Awarded **Silver Medal** in **Dr.Homi Bhabha Bal Vaidnyanik Competition** [‘11-‘12]

TECHNICAL PROJECTS

1. **Beat Tracking** project, under Prof. Preeti Rao, Electrical Engineering Dept. [May’17 onwards]
 - Studied more than **8 algorithms in Music Information Retrieval** for detection of musical note onsets, tempo estimation and beat tracking
 - Achieved **>95% successful note onset detection** for monophonic piano music
 - Used major concepts of **Digital Signal Processing**, including Short Time Fourier Transform, Spectral Flux and Psycho-acoustic Perception of Music
 - Implemented the algorithm using Essentia **Python library** for audio processing
2. **Automated Turret** project as Institute Technical Summer Project (Robotics Club) [May-Jun’16]
 - Created a system to detect a target in the surroundings and shoot it correctly using a gun
 - Worked with Image processing using **OpenCV, Arduino** and **Servo motors**
 - Achieved an accuracy of 85% head-on shots and 100% shots upto 3cm around the target centre for target distances of upto 1.5m
 - Presented the project in Tech n RnD Expo in IIT Bombay among the best projects from IIT
3. **Palliative Care** project under Tata Centre IITB, Prof. Noronha of Chemical Dept. [Dec’15]
 - Designed and created a circuit to run a stepper motor to compress a syringe and deliver precise doses of painkiller, linked it to a GSM module to transmit the dosage details
 - Worked with **Arduino, ATmega, GSM module** and **stepper motors**
 - Intended to be applied to a low cost syringe pump for regulated delivery of painkillers to patients outside the hospital, under the monitoring of a nurse in the hospital

TECHNICAL SKILLS

- Computer programming with **C++, Java, Python** and web page designing using **HTML, CSS**
- Making and programming electronic circuits with **Arduino** and **ATmega** microprocessors.
- Electrical circuit simulation with **NGSpice**
- Familiar with the use of **Scilab, Matlab, GNURadio**
- Description of digital circuits in **VHDL**
- **Assembly language programming** of 8085 microprocessor

COURSES UNDERTAKEN

Courses under Electrical Engineering:	Mathematics Courses:	Other Courses:
Electronic Devices (with Lab)	Calculus	Computer Networks
Network Theory	Linear Algebra	Data Structures and Algorithms
Analog Circuits (with Lab)	Differential Equations	Operating Systems *
Digital Systems (with Lab)	Complex Analysis	Quantum Physics
Signals and Systems	Partial Differential Equations	Biology and Bio-engineering
Information Theory and Coding	Data Analysis and Interpretation	Physical Chemistry
Microprocessors (with Lab) *		Organic and Inorganic Chemistry
Communication Systems (with Lab) *		Engineering Drawing
Probability and Random Processes *	* Will be completed in current semester	Economics
EM Waves *		Environmental Studies
		Study of Language

POSITIONS OF RESPONSIBILITY

- Nominated as **Classical and Folk Arts Secretary** in the Institute Cultural Council [‘17-‘18]
 - Led a team of 4 conveners for the promotion of Indian classical and folk arts
 - Managed a budget of 0.5 million for purchase of inventory, inviting professional artists and conducting concerts, workshops and other events
 - Secured funds worth 50K for setting up inventory of Indian musical instruments
 - Organised professional concerts with audience of 500 in association with SPIC MACAY
 - Organised an Institute Classical and Folk Arts Night with performances by 50 students
 - Initiated regular classes for learning of Indian classical music and dance
 - Introduced new unexplored art forms like Kathakali, Bamboo Dance and Bihu
- Teaching Assistant** for **Quantum Physics** under Prof. Umasankar, and **Linear Algebra** under Prof. Akhil Ranjan [Jul-Nov ‘16]
[Jan-Feb ‘17]
 - Selected for a TA team of 20. Each TA to teach a class of 45 first year undergraduates
 - Conducted weekly tutorials to clear concepts and discuss solutions to problems
- Coordinator with Mood Indigo 2016** (Asia’s largest college cultural festival) [‘16]
 - Worked with a team of 50 volunteers to organize concerts with a footfall of 20,000
 - Ideated and executed Asia’s largest band competition **Livewire**
- Head Boy of School** in Class X [‘12-‘13]
 - Coordinated a team of 29 students to organise intra-school activities

EXTRA CURRICULAR ACTIVITIES

- Music**
 - 12 years of experience in Carnatic classical vocal and violin [‘04-Present]
 - Won **2nd place** in Goonj, inter-hostel music competition of IITB [‘16]
 - Awarded merit in Grade 1 Plectrum Guitar by **Trinity College of London** [Jan’12]
 - Performed at Naadha Vaibhavam, a **Guinness World Record event** of 5700 Carnatic singers on one stage, organised by the Art of Living [Jan’11]
- National Service Scheme**
 - Volunteered for the **Educational Outreach** Programme [‘15-‘16]
 - Completed **80 hours** of teaching underprivileged students at NGOs in Powai
- Awarded Gold certificate for participating in the Yogathon Challenge conducted by the Art of Living and completing **108 rounds of Surya Namaskar** on World Health Day [Apr’12]
- Runner Up** at the city finale of **HDFC Life Spell bee 2012** [‘12]