| | Kumar Ishu | | 120100056 |
| Mechanical Engineering | | UG Second Year | |
| Indian Institute of Technology Bombay | | Male | |
| Specialization: None | | DOB: 30-09-1994 | |

| Examination | University | Institute | Year | CPI / % |
| --- | --- | --- | --- | --- |
| Graduation | IIT Bombay | IIT Bombay | 2014 | 8.24 |
| Intermediate/+2 | Central Board of Secondary Education | St. Michael's High School, Patna | 2012 | 95.40 |
| Matriculation | Central Board of Secondary Education | Loyola High School, Patna | 2010 | 9.40 |

## SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank of 1360(GEN) in IIT-JEE 2012
- Secured All India Rank of 1620(GEN) and state rank of 15(GEN) in AIEEE 2012
- Secured All India Rank of 26 in Special Class Railway Apprentice exam in 2012
- Secured 5th rank from Northern region in Regional Mathematics Olympiad conducted for INMO 2011
- Secured All India Rank of 30 and state rank of 1 in International Olympiad of Mathematics, 2008
- Secured All India Rank of 151 and district rank of 1 in National Level Science Talent Search Examination 2006
- Awardee of Sir C.V. Council of Educational award by Vishwabharathy Foundation 2004

## INTERNSHIPS AND TECHNICAL PROJECTS

**1. IIT BOMBAY RACING TEAM**                                      [May 2013-June 2013]
- Carried out a detailed study about designing of a F1 race car and studied about its various sub- divisions; was a part of EVO 2.0 team which took part in FSAE 2013 at Silverstone, UK
- Got the first-hand experience of applying the theoretical knowledge on the practical grounds

**2. INSTITUTE TECHNICAL SUMMER PROJECT (ITSP)**        [May 2013-June 2013]
- Built a remote-controllable ROBOTIC ARM capable of lifting and transporting an object kept anywhere in the hemispherical region(of radius 40 cm) to anywhere else in the constraint region around it
- Our wiki page of the project : http://stab-iitb.org/wiki/1RE07_Robotic_Arm

**3. FUNCTION SPACE**                                                    [January 2014-till date]
- Working with the bright individuals of the finest institutes of India and US to ensure content development on a regular basis
- One of the top 5 contributors to the promotion of the company in terms of ensuring flow of good discussion and growth of traffic over the website www.functionspace.org and hailing the company as the fastest growing learning network for Science

4**. EDUCATION FOR EVERYONE (E-one)** [December 2013]
- Prepared Mock Test papers for Common Aptitude Test (CAT) and Graduate Record Examinations (GRE) based upon quantitative ability, data interpretation, verbal ability and logical reasoning
- Created the Business Plan for the company showcasing the high-impact business idea to impress the potential investors

## ACADEMIC PROJECTS

1. **Design of Experiment** (Experimental Engineering Project)  [August 2013-October 2013]
   *Guide:* **Prof. Prakash R. Apte**
- Experiments being planned to maximize the intensity of LED light output
- Found the proper combination of control factors and noise factors to calculate the maximum output closely matching with the observed value
2**. Phase Diagrams** (Engineering Metallurgy Project) [October 2013]
   *Guide:* **Prof. B. P. Kashyap**
- Learnt about Cu-Zn phase diagram and stability of its Hume-Rothery phases at pressures upto 50KPa
- Got an insight into Nucleation processes and Kinetics of phase transformations in detail
3**. Computer Programming and Utilization** [February 2013-March 2013]
   *Guide:* **Prof. Sridhar Iyer**
- Developed a Market Billing Interface in C++ language using fstream, iomanip and windows library
- Developed a computer game to play for kids in the Scratch environment; was declared as one of the best five projects

## ACADEMIC COURSES

| Core | Non-core | Minor (CSE) |
|---|---|---|
| Engineering Mechanics | Calculus | Discrete Structures |
| Engineering Drawing | Linear Algebra | |
| Workshop Practice | Differential Equations | |
| Solid Mechanics | Chemistry | |
| Thermodynamics | Modern Physics | |
| Engineering Metallurgy | Data Analysis and Interpretation | |
| Electric and Electronic Circuits | Economics | |
| Strength of Materials* | Computer Programming and Utilization | |
| Manufacturing Processes* | Introduction to Numerical Analysis* | |
| Fluid Mechanics* | Probability and Random Processes* | |
| Manufacturing Practice Lab* | Measure Theory* | |
| Solid Mechanics Lab* | | |

**Courses with * will be completed this semester**.

## SOFTWARE SKILLS

- **Programming Language** : C, C++, MYSQL and BASIC
- **Web Development** : HTML
- **Operating System** : Windows
- **Packages** : Mat Lab, Scratch and Microsoft Office

## POSITIONS OF RESPONSIBILITY

1. **COORDINATOR, TECHFEST 2014**                              [May 2013-till date]
- Managed the entire Internal Transport working for the Infrastructure team to ensure smooth organization of the fest
- Coordinated **Cassopian Wars, North Zone**- a national level competition held in 5 zones comprising 3 unique challenges, aimed at holistic development of robotics in India
- Proposed noble ideas to invite the renowned personalities and artists for Technoholix and Lecture series in the fest
- Helped in crowd flow to ensure maximum participation in the events going on during the fest

2. **COORDINATOR, NSS, IIT BOMBAY**                           [July 2013-till date]
- Coordinating the Educational Outreach department of National Service Scheme aimed at providing education to the underprivileged free of cost
- Ensured smooth allocation of centers to the students while heading the NGO VIDYA center

3. **COORDINATOR, RADIANCE 2014**                          [January 2014-till date]
- Coordinating the Publicity team to ensure a maximum participation in the Mechanical Engineering Department festival

## EXTRA CIRCULLAR ACTIVITIES & ACHIEVEMENTS

- Volunteered for **Abhyasika** from July 2012 to November 2013 teaching and motivating underprivileged kids living in the nearby slums
- Wrote an article on Institute Rules & Regulations as an **Editorial Board Member of Insight, IIT Bombay** to perceive out the need for the existence of a rulebook
- Conducted an event called **Brain Hi-Q** in July 2013 across 10 schools in hometown covering 20000 students testing their analytical skills to help them recognize their potential and develop a grit to compete
- Got 2$^{nd}$ rank in Maths Challenge conducted by Math and Physics Club, IIT Bombay during EXPLORE in January 2014
- Got 13$^{th}$ rank in Math Olympics conducted by Math and Physics Club, IIT Bombay in October 2012
- Worked for www.toppr.com as a content writer and helped JEE aspirants personally from August 2013 to October 2013
- Participated in English Debate and English Creative Writing competition during Freshiezza 2012
- Completed successfully the 5.6 kilometers Crossy GC in October 2013