



**Abhay Mahajan**  
**Mechanical Engineering**  
**Indian Institute of Technology Bombay**  
**Specialization: Computer Aided Design (CAD) & Automation**

**08D10006**  
**Dual Degree (B.Tech+M.Tech.)**  
**Male**  
**DOB: 25/04/1990**

| Examination | University | Institute  | Year | CPI / % |
|-------------|------------|------------|------|---------|
| Graduation  | IIT Bombay | IIT Bombay | 2013 | 7.02    |

## LEADERSHIP ROLES

**Manager, Hospitality, Techfest 2011** [Mar '10 – Feb '11]  
*Core team member of Asia's largest Science & Technology Festival [Budget: ₹13.2 million; Footfall: 85,000]*

- Led a **2 tier** team of **95 volunteers** to make comprehensive hospitality arrangements for participants & eminent guests
- Overcame severe institute accommodation crunch by:
  - pioneering off-campus accommodation (with conveyance) for participants; negotiated with leading hospitality providers, resulted in savings of over **₹ 0.25 million**
  - optimizing the lodging scenario through introducing 'partial acco'; accommodated over **150** extra participants
- Accomplished **27% y-o-y** increment (**raised ₹ 1.86 million**) in sponsorships from FMCG & hospitality companies
- Secured grant of **UNESCO Patronage** for Techfest 2011 from **Government of India** in view of its initiatives & activities

**Dramatics Secretary, Hostel 8** [Aug '09 – Apr '10]

- Rejuvenated hostel dramatics culture by organizing **4 intra events** & conducted **2 workshops** to nurture the talent
- Efforts led hostel to **win** Dramatics General Championship after **5 years**; play (co-writer) subsequently won at **Mood Indigo '09**, staged at **Prithvi Theatre & NCPA**, Mumbai

## INTERNSHIPS

**Indian Institute of Management, Ahmedabad - Logistics Management** [Dec '11]

- Scrutinized & analyzed findings from over **60** media & official sources to articulate a case report on Bombardier Inc's Contract with Delhi Metro Rail Corporation
  - Identified logistics & administrative issues causing bottlenecks in the contract completion
- Only intern to get acknowledged in the case report; approval by Case Unit of IIM-A en route, to use it as a teaching aid**

**Geometric Limited, Pune - Surface Categorization Tool** [May '11 – Jun '11]

- Designed a novel, time efficient algorithm to assort 'core & cavity surfaces' of any component to be manufactured
  - Achieved **98%** accuracy for the test components by implementing the algorithm in C++
- Module to be launched with next release of the flagship product of the firm, DFMPPro**

## KEY ACADEMIC PROJECTS

**Automation of Beedi Production - Dual Degree Dissertation** [Jun '12 – Present]  
*Developing the first of its kind machine for manufacturing Beedi*

- Established productivity benefits of the project by theoretically achieving **60%** reduction in manufacturing time
- Achieved over **99%** dimensional accuracy in image processing of the leaves as the first step of the project
- Currently reviewing literature on **space optimization algorithms** to formulate an efficient nesting logic

**Valuation of Non-Market Resources** [Jan '12 – Apr '12]

*Estimated maximum Willingness to Pay (WTP) by the visitors for Borivali National Park, Mumbai*

- Correlated WTP with a comprehensive set of variables by surveying over **100** visitors from diverse backgrounds
- Identified optimum **price point** & hence recommended an increment in entry fee to increase the revenue by **23%**

**Automated Cardio-Pulmonary Resuscitator (CPR)** [Jan '12 – Apr '12]

*Contrived a low cost, portable & user friendly device to administer CPR process*

- Collaborated with renowned cardiologist to solve critical medical issues involved in the process
- Exercised various product development techniques (**QFD, AHP**) to conclude most suitable design
- Demonstrated project before **7 member** panel comprising surgeons & engineers; proposed future developments

## ACTIVITIES & ACHIEVEMENTS

### Social

- Spearheaded collaboration with **60 colleges** to execute a patriotic campaign '**India Unmute**' across **40 cities** to voice vision of future India; applauded by major national & regional dailies (TOI, The Hindu, Lokasatta, HT)
- Conceptualized **Energy Saving Movement** across 5 IITs, resulted in awareness & overall savings of **₹ 1.26 million**

### Miscellaneous

- Dramatics enthusiast; lead actor & co-writer of **winning play** at Freshmen Dramatics Competition ('08)
- Secured **1<sup>st</sup> position** in Inter Hostel Tug of War ('11) & **4<sup>th</sup> position** in Inter Hostel Dance ('09) General Championship