



Swati Agrawal
Aerospace Engineering
Indian Institute of Technology, Bombay
Specialization: Controls

08D01015
Dual Degree (B.Tech+M.Tech.)
Female
DOB: 02-01-1990

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	8.11

INTERNSHIPS

AIRBUS-EADS, BANGALORE

[May '11- July '11]

- Proposed a statistical methodology to determine the minimum precision preventing deviation from desired path
- Achieved a probable imprecise GPS data, resulted into potential **savings of 100,000 \$** per aircraft for airlines
- Developed strategy to get suitable reduced model for FMS; resulted into **50%** time savings; prioritized inputs
- Proposed method got **adopted** by the **head office, France** ; can increase demand for low cost aircrafts

UNIVERSITY PUTRA, MALAYSIA

[May '10- July '10]

- Simulated path of a satellite in MATLAB calculating essential initial parameters for desired orbit using linear model
- Compared the linear model with actual non- linear model to check the credibility and accuracy of linearized model

NJ INDIA INVEST, SURAT

[December '11]

- Analyzed 10 **mutual fund** schemes based on 8 risk-return measurement statistical ratios; ordered on basis of risk
- Employed tools of basic financial planning for a virtual client considering assets-liabilities on the interface provided

POSITIONS OF RESPONSIBILITY

INSTITUTE GIRLS' SPORTS NOMINEE | 22 member Team responsible for sports activities

[May '11- April '12]

- Initiated a **15 day** "Mixed Sports Championship" leading Institute Sports Secretaries; witnessed **300+** participants
- Successfully conducted **first ever** girls' alumni matches which helped raising funds for sports council
- Led Girls' contingent for **Inter IIT SportsMeet-2011**, securing **3rd** position; managed logistics and requirements
- Achieved **100%** growth in participation of girls in sports activities leading Hostel and Institute Sports Councils

PROJECT HEAD, EKJAA CAMPUS LEADER PROGRAM | Leading a 3-tier team of 70 volunteers

[Jun'12-Present]

- Revitalized program by; **2 fold** growth in volunteers, **300%** in online visibility, helping NGOs raise funds
- Collaborated with 25 NGOs impacting **2000** lives; helped 2 NGOs within 1 month via collection drives, **corporates**
- Pioneered " Marketing Advisory team" to help the students in fund raising strategies; involved 5 MBA colleges

INTERNSHIP COORDINATOR, PT CELL | Team of 22 responsible for training of 1200 students

[May '10- Apr '11]

- Negotiated with companies, universities, social organizations; 80% growth in core companies for Aerospace Dept.
- Escalated internships by more than **150%** specifically for Aerospace Department in 2nd year of PT Cell

WARDEN'S NOMINEE | Leading a 2 tier team of 36 along with General Secretary

[Mar '12-till date]

- Consolidated budget of **INR 12 Lakhs**, auditing the same; planned room allocation for 550 students with HCU

DEPARTMENT MENTOR | Part of 12 member team to counsel students selected among 28 students

[Mar '12-till date]

- Counseling 4 academically weak students to cope up with academics and co-curricular activities

SPORTS SECRETARY | Elected by 200 hostel inmates to lead the hostel for sports activities

[Mar '09- Feb '10]

- Revamped Intra-Hostel Sports; Led Hostel to **victory** after **6 years** by efficient scheduling of practice sessions

ACADEMIC ACHIEVEMENTS AND PROJECTS

- Recipient of prestigious "Gargi Puraskar" by Rajasthan Govt to be ranked 27th in HSC Board among 5 lakh students
- Recipient of IITB heritage fund scholarship given only to 89 students; ranked **6th** in Aerospace Eng., batch 2008

DESIGN OF ROBUST CONTROLLER & SENSITIVITY ANALYSIS | Undergraduate Thesis

[Jul' 11-Apr' 12]

- Designed a robust controller minimized the noise and energy, increased the controllable noise range by **8 times**
- Obtained the empirical relations between noise and gain, saved complex calculations reducing the time to **50%**

APPLICATION OF PARTICLE SWARM OPTIMIZATION TO STRUCTURES | Master Thesis

[Jul '12- Present]

- Introducing a new variant in PSO for robustness; applying the PSO to complex non-linear structural problems

EXTRA- CURRICULAR ACTIVITIES

Sports	<ul style="list-style-type: none"> Represented IITB at Inter IIT Sports-BasketBall for 4 consecutive years winning Silver Medal Won Bronze medal at State Level TT Tournament (2004) organized by Rajasthan Government Awarded Sports Color (2010) and Special Mention (2009) for excellence in sports Won Gold in Cross Country Inter-Hostel GC competing with 50 participants
Environment Management	<ul style="list-style-type: none"> Funded by IITB to consult BMC; Optimized the hypothetical route for collection of waste Analyzed the cost-benefit of decentralized-centralized waste management; quoted the solutions
Journalism	<ul style="list-style-type: none"> Identified flaws in distribution of IITB- Merit-Cum-Means scholarship; covered article for Insight Convinced Convener, Scholarship Committee to revamp the system with proposed solutions
Finance	<ul style="list-style-type: none"> Achieved AA grade in cost benefit analysis ;98% marks in NSE Equity Derivative Module