



S.S.GAYATHRI
Energy Science and Engineering
Indian Institute of Technology Bombay

22B1535
B.Tech.
Gender: Female
DOB: 15/07/2004

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2026	

Pursuing a **Minor in Management** at Shailesh J. Mehta School of Management, IIT Bombay

SCHOLASTIC ACHIEVEMENTS

- Secured overall scores of **97.4%** in class **12th** and **98.4%** in class **10th** CBSE Board Exams (May'22, May'20)
- Achieved **96.1** percentile among 1 million+ candidates across the country in **JEE Mains** examination (Jul'22)

POSITIONS OF RESPONSIBILITY

Senior Control Engineer | Controls Subsystem | Exofly (Jun'23 - Present)

Team of Tech Enthusiasts whose vision is to build a safe, ultra-compact VTOL capable of carrying a single person

- Gained proficiency in the **Python OpenCV** library and applied it in tasks of object detection, object recognition, pose estimation, **ArUCO** markers detection etc. which achieved accuracy of upto **90%** with camera calibration
- Mentored **7 trainees** over 2 months in basics of flight in quadcopters, Computer Vision and software **MATLAB**

Department Academic Mentor | Student Mentorship Program (May'24 - Present)

Selected as a part of 7-member team from 40 applicants based on peer reviews, SOPs and rigorous interview process

- Co-mentoring **10 sophomores** in academics, co-curriculars and responsible for general upliftment of department
- Working on conducting a survey and writing course information & reviews for **500+ readers** on the **DAMP** blog

PROFESSIONAL EXPERIENCE

Comparative Analysis of 3-Level T-type & NPC Inverters | Research Intern (May'24-Present)

Guide: Prof. D.Venkatramanan, Department of Energy Science and Engineering, IIT Bombay

- Acquired knowledge about the working of **3-Level T-type & NPC Inverters** along with their switching logics
- Simulated them in the software **PLECS** to get similar waveforms of load current and voltage with a THD of **8%**
- Calculated and quantitatively compared **switching losses** for both the inverters for a common set of parameters

KEY PROJECTS

Consumer Theory and Behavior Analysis | Summer of Science | MnP Club (May'23 - Aug'23)

- Conducted an extensive research project analyzing **consumer behavior** and preferences, applying principles of **market segmentation** and **behavioral economics** to create a feedback survey for a sample electronics store
- Analysed **5+** case studies of companies including **One Plus, Nike, Adidas, Boat and Coca-Cola**, extracting insightful narratives that prove their astute and ingenious business strategies and decisions taken in various places

Corporate Finance | Summer of Science | MnP Club (May'24-Present)

- Comprehensive study of present value concepts, **NPV rule**, separation theorem, Fixed income valuation, Valuation of pure discount bonds, Yield to Maturity vs Holding Period Return, Equity valuation, Capital Budgeting
- Comparative analysis of **SI vs CI**, Attenuities vs Perpetuities, NPV vs IRR to make accept or reject decisions

Aggregate Planning | Course Project | Operations Management(MG406) (Apr'24)

- Presented a research paper examining **production & inventory planning** challenges faced by a food company
- Concluded that reduction in the forecast error by **50%** would lead to an improvement of **10%** in the gross margin
- Suggested a revision of current sales and the need to use **aggregate data** and a **linear programming model**

Management Structure Analysis | Course Project | Management (SOM101) (Dec'22)

Course Instructor: Prof. Ashish Pandey, School of Management, IIT Bombay

- Led a comprehensive exploration of **Sun Pharma's** management landscape, dissecting organizational intricacies
- Conducted an in-depth analysis of Sun Pharma's management structure, marketing ventures along with analysis of its domestic market share of over **8%**, including organizational charts, vision, values and the **SWOT** Analysis

Excel and SQL for Big Data Handling | Learners' Space | Analytics Club (Jul'23)

- Learnt advanced functionality of **Excel** with functions, pivot tables, dashboarding etc. & attained essential skills and knowledge to effectively manage and handle large-scale datasets using **Structured Query Language(SQL)**

EXTRACURRICULAR ACTIVITIES

Social Work	<ul style="list-style-type: none">Served as a Guide under the Bharat Scouts and Guides organisation(4 years). Led and mentored diverse groups of scouts and guides, fostering teamwork, outdoor skills and personal growth through engaging activities, educational programs & skill-development camps(2015-2019)Earned the Rajya Puraskar award (the highest state level award in scouting society) (2019)Recieved the Best Guide Award from the Honorable Finance Minister Of India(2019)
Cultural	<ul style="list-style-type: none">Completed 1 year training in Sketching under National Sports Organisation (NSO)(2022-2023)Won Special Prize in the Visual Arts Competition conducted by Mohan Foundation (2018)Completed an extensive 3 year training program in the Indian Classical Music (2016-2018)11 Artworks selected for Kaladharshan, the Annual Fine Arts Exhibition of IITB (2023)
Sports	<ul style="list-style-type: none">Won Silver medal in Chess General Championship, representing Hostel 15 team(Sept'23)Rigorous formal sports training in Badminton(2 yrs), Lawn Tennis(1 yr), Roller skating(3 yrs)