



Radhika Goyal
Chemical Engineering
Indian Institute of Technology Bombay

22B0423
B.Tech.
Gender: Female
DOB: 05/10/2004

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

SCHOLASTIC ACHIEVEMENTS

- Achieved **AA/AB (9+)** grade in **8 out of 9** core chemical engineering courses with **9.2 SPI** in 3rd semester ['24]
- Secured **97.84** Percentile in JEE Advanced and **99.87** Percentile in JEE Main among **1.2 million+** aspirants ['22]
- Ranked among the **top 5%** of **60K+** candidates qualified for Kishore Vaigyanik Protsahan Yojana (KVPY) ['22]
- Recipient of the prestigious **NTSE Scholarship** awarded to top **0.1 percent** out of **1 million+** applicants ['20]

POSITIONS OF RESPONSIBILITY

Editorial Board Member | **Insight** - IIT Bombay's official student media body [Apr '24 - Present]

Publishing articles for 400K+ readers to highlight the diverse issues facing students in a 3-tier team of 20+ members

- Exposed the **election irregularities** impacting **13K+** campus residents with an editorial receiving **2.5K+** reach
- Spearheaded an interview with the **IITB Director** on institute development policies and critical national issues
- Conceptualised **Insight's first-ever** Readership Survey aiming to analyse engagement trends of **10K+** students
- Responsible for managing **6** junior editors, providing guidance and ensuring timely completion of crucial projects

Sports Secretary | Chemical Engineering Association, IIT Bombay [May '23 - Apr'24]

*Part of 11-member team conducting 20+ events annually with a budget of **INR 0.4 million** attracting **1600+** students*

- Conferred the **Certificate of Excellence** for notable contribution to the Chemical Department (**11/800+** students)
- Spearheaded a **Mixed Cricket League** with a participation of **120+** students encouraging female participation
- Appointed as the **first-ever** female Sports Secretary in Department Council since its establishment **60+ years ago**

RESEARCH EXPERIENCE AND KEY PROJECTS

Accelerated Tests to Generate Microplastics | Guide: Prof. Guruswamy Kumaraswamy [Jan '24 - May' 24]

*Awarded **Letter of Recommendation** by Prof. Guruswamy Kumaraswamy and **Honorarium** by Dean ACR office*

Aim	• Identify the optimal polymer for fishing nets to minimize environmental impact by conducting a comparative analysis of degradation and microplastic formation of PE, PET and Recycled PET
Approach	• Conducted literature review of 25+ research papers and narrowed down 2 accelerated degradation protocols, used DLS (3 angles), SEM, optical microscopy, and EDS to analyze microplastics • Mitigated K2S2O8 oxidation inhibition by neutralizing acidity with base addition every 12 hours
Impact	• PET had highest mass loss (1.67%) and DLS intensity under hydrolysis compared to PE, RPET • PE had highest microplastic yield under oxidation (43.64% carbon content) in SEM-EDS • Highlighted the acidity effect on K2S2O8 efficiency, guiding future oxidation protocol optimization

Corporate Finance | FinSearch | Finance Club, IIT Bombay [Jul '23 - Sep '23]

- Gained foundational expertise in accounting, financial statements, and elements like returns, risks, and valuation
- Researched **2** case studies to analyze the application of **trade-off theory** of Capital Structure in corporate finance

PROFESSIONAL EXPERIENCE

Garware Technical Fibres Limited | R&D Intern [May '24 - Jun '24]

Performed experimental analysis on polymer disintegration in aquaculture systems by executing environmental testing

- Assessed the degradation amount in aquaculture systems by exposing **4** types of ropes to **4** environmental conditions
- Analyzed **3+** parameters of rope materials like **denier**, **tenacity** and **breaking strength** to assess the yarn damage
- Highlighted the varying impact of different environmental conditions and contributed to improved material selection

EXTRA CURRICULAR ACTIVITIES

	Position	Tournament	Significance
Basketball	Silver Medal	56th Inter-IIT Sports Meet'23	• 1/5 starting players, contributed to girls team's first-ever silver medal
	Gold Medal	State Championships '16 & '17	• 1/12 from 100+ to represent Jaipur • Won 1st position twice consecutively
	MVP Women	Freshiesta, IITB	• Highest ranked female basketball player among 1K+ freshmen
	Bronze Medal	Aavhan, IITB	• Competed against top teams in India
	Captain	RBMHS U-17 Girls' team	• Selected out of 500+ girls in school • Participated in 25+ tournaments
Misc.	• Dancer in AIDS (1.3K+ audience), Directed IITB chemical freshers' intro video(40K+ views) • Cleared 3 tonnes of garbage at Versova Beach, Mumbai as part of a team of 400+ volunteers • Achieved 3rd position among 200+ students in French Olympiad: Concours Romain Rolland		