# KUMARI PRAGYA RANI

Biomedical Engineering Undergraduate | Research & Development | Nanotechnology | Medical Devices

## Summary

Biomedical Engineering student with a strong foundation in nanotechnology, medical device design, and biomedical research. Passionate about integrating interdisciplinary knowledge to develop innovative healthcare solutions. Experienced in green synthesis, device optimization, and molecular biology techniques, with a proven track record in national-level competitions and internships at premier institutes.

## Experience

* Intern | IIT Indore
* Sept 2024 – Jan 2025

- Contributed to ongoing research involving biomedical applications.  
- Gained hands-on experience in spectroscopy, microscopy, and synthesis techniques.

* Project Researcher | VIT Bhopal
* 2022 – Present

- Led synthesis of ferric oxide nanoparticles via green methods for wound healing.  
- Developed and optimized Peltier-based cooling systems with high temperature precision.  
- Redesigned TMVR device to improve implantation stability and reduce dislodgement risk.

## Education

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| --- | --- | --- |
| Degree | Institution | Year / Score |
| B.Tech, Biomedical Engineering | VIT Bhopal | 2022–2026 / 8.96 CGPA (Current) |
| HSC (PCB) | DAV Public School | 2019/ 90.3% |
| SSC | DAV Nandraj Public School | 2017 / 95% |

## Certifications

* - Science Content Writing
* - Rietveld Refinement | FullProf Suite

## Technical Skills

Python, MATLAB, Java, MS Excel, Origin, Solid Edge, VESTA, Mercury, Rietveld Refinement, FullProf Suite, Spectroscopy Tools, Gel Electrophoresis, DNA Extraction, PCR, MIC Testing, Sol-Gel and Hydrothermal Methods.

## Achievements

* 4th Prize – Biocraft (IIT Kharagpur, Kshitij 2024)
* 2nd Prize – Ideathon (Advitya 2023, VIT Bhopal)
* 1st Prize – Hackathon (VIT Bhopal)
* Top 5 Project – Industry Conclave (VIT Bhopal)
* Round 2 – Lam Research Challenge (T-Works)
* 2nd Prize – National Science Day Exhibition (VIT Bhopal)
* Round 2 – National Biology Entrepreneurship 2024

## Interests

Innovative medical technologies, Nanomedicine, Competitive scientific events, Cross-disciplinary research.