SANSKRUTI PATEL

Biotechnology | B.Tech–M.Tech Integrated Dual Degree
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PROFESSIONAL SUMMARY

Biotechnology student (B.Tech–M.Tech Integrated Dual Degree, KIIT) with hands-on research and internship experience in microbiology, nanotechnology, and biomedical engineering. Skilled in nanoparticle synthesis, antimicrobial assays, UV-Vis, XRD and DLS data interpretation, Good Laboratory Practices (GLP), SOP compliance, and scientific documentation. Seeking entry-level roles in Research and Development (R&D), Quality Control (QC), Quality Assurance (QA), or laboratory operations.

RESEARCH EXPERIENCE AND INTERNSHIPS

Academic Project – Nanomaterial Synthesis and Analytical Research 2026
KIIT School of Biotechnology, KIIT University, Odisha

- Synthesized silver nanoparticles (AgNPs) using chemical and green synthesis methods, and nitrogen-doped carbon quantum dots (N-CQDs) using hydrothermal synthesis.
- Performed antimicrobial assays against E. coli and S. aureus using the Kirby-Bauer well diffusion method; assisted in fungicide sensing experiments.
- Interpreted UV-Vis spectroscopy, XRD, and DLS characterization data; maintained detailed laboratory records and scientific reports.

Summer Intern – Biomedical Instrumentation and Literature Analytics May 2026
Department of Biomedical Engineering, NIMHANS, Bengaluru

- Observed biomedical equipment maintenance, calibration, troubleshooting, and clinical engineering workflows at a tertiary healthcare institute.
- Conducted literature reviews on machine learning algorithms (Random Forest, XGBoost) and biomarkers for clinical sepsis detection.
- Prepared technical documentation and presentations for interdisciplinary teams.

Summer Intern – Nanomaterial Synthesis and GLP Compliance May 2025 – June 2025
Department of Nanotechnology Science, KIIT School of Chemical Technology, Odisha

- Synthesized titanium dioxide (TiO2) nanoparticles using microgel-based techniques; assisted in carbon dot preparation.
- Operated laboratory instruments in strict adherence to Good Laboratory Practices (GLP), SOPs, and safety standards.

Summer Intern – Clinical Diagnostic Microbiology May 2024 – June 2024
Department of Microbiology, Kalinga Institute of Medical Sciences (KIMS), Odisha

- Processed clinical samples and performed bacterial culture handling, Gram staining, and basic serological techniques.
- Followed biomedical waste management protocols, infection control guidelines, and clinical documentation requirements.

EDUCATION

B.Tech–M.Tech Integrated Dual Degree in Biotechnology 2022 – 2027 (Expected)
Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, Odisha | CGPA: 6.89

Higher Secondary (Class XII) 2021 – 2022
Krishna Vikash, Bargarh, Odisha | 84.5%

Secondary (Class X) 2018 – 2019
Krishna Vikash, Bargarh, Odisha | 74.5%

SKILLS

Laboratory Techniques: Nanoparticle Synthesis, Microgel Synthesis, Hydrothermal Synthesis, Bacterial Culture Handling, Gram Staining, Kirby-Bauer Antimicrobial Assay, Clinical Sample Processing, Serological Techniques

Analytical Techniques: UV-Vis Spectroscopy, X-Ray Diffraction (XRD), Dynamic Light Scattering (DLS), Data Analysis, Data Interpretation

Quality and Compliance: Good Laboratory Practices (GLP), Good Manufacturing Practices (GMP), SOP Compliance, Biomedical Waste Management, Infection Control, Laboratory Safety, Scientific Documentation

Tools and Software: MS Excel, MS Word, MS PowerPoint, PubMed, Google Scholar

Professional Skills: Literature Review, Communication, Teamwork, Problem-Solving, Time Management, Attention to Detail, Leadership, Analytical Thinking

POSITIONS OF RESPONSIBILITY

Vice President – Aakriti (Creative Society), KIIT School of Biotechnology 2024 – 2025

- Led creative initiatives, coordinated cross-functional student teams, and managed society events.

Volunteer – National Service Scheme (NSS), KIIT School of Biotechnology 2022 – 2025

- Organized social welfare initiatives, community outreach programs, and health awareness drives.

LANGUAGES

English, Odia, Hindi