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PROFESSIONAL EXPERIENCE

Time period	Designation	Institute	Responsibilities
April 2023- Present	Assistant Professor	K.J. Somaiya College of Science and Commerce, Mumbai, Maharashtra, India.	Conducting lectures and practicals for undergraduate and postgraduate students.
April 2022- March 2023 August 2020- March 2022	Researcher and Coordinator Research and Extension Officer	MPSM'S Prabodhan Centre for Research (PCR) (formerly- Xavier Institute of Social Research and Action) Nashik, Maharashtra, India	-Responsible for managing the Centre and Soil and Agricultural microbiology department. -Developed and worked on the study of Soil Microbial Diversity. -Worked on applying Azolla as an alternative for Urea as a nitrogen source for paddy and explored the microbe-plant interaction. -Responsible for designing, developing and executing research projects (including product development) in the areas of agroecology (soil microbiology), organic waste, forestry, biodiversity, Entrepreneurship and climate change.
Aug 2019 - Feb 2020	Assistant Professor of Microbiology	K.J. Somaiya College of Science and Commerce, Mumbai, Maharashtra, India	-Conducted lectures and practicals in microbiology for undergraduate and postgraduate students. -Part of the Board of Studies Committee of the department.
September 2018 till present	Founder, CEO	AgroBeads Biosolutions Pvt. Ltd, Thane, Maharashtra, India	-Production of agro-products for sustainable agriculture.
April 2018- March 2019	Lecturer	Mahesh Tutorials Pvt. Ltd., Mumbai, India.	-Conducted biology lectures for school students of Class- VIII, IX, X

August 2017- April 2018	CHB lecturer in the Department of Microbiology	K.J. Somaiya College of Science and Commerce, Mumbai, Maharashtra, India	-Conducted lectures and practicals for Undergraduate students. Lecture topics covering Industrial Microbiology, Genetics and Environmental Microbiology.
April 2015	Intern (Student)	Precise Analytics, a sister concern of Meyer Organics, Thane, Maharashtra, India	-15 days of industrial training in Quality control (Microbiology). Carried out microbiological analysis of incoming food, medicine and water samples. -Documentation of the incoming media, Preparation and Autoclaving of media.
April 2014 to May 2014	Intern (Student)	Pathology lab (Microbiology department), Jupiter Hospital, Thane, Maharashtra, India	-Processed blood, sputum, urine, and Cerebrospinal fluid samples of patients. Also performed the antibiotic susceptibility testing of the organisms isolated from samples for example, <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> , and <i>Pseudomonas aeruginosa</i> using VITEK. Used BACTEC for culturing bacteria from Blood samples.

ACADEMIC EXPERIENCE

Qualified State Eligibility Test (2024) in Life Sciences (Conducted by Savitribai Phule Pune University)

Qualified Graduate Aptitude Test in Engineering (GATE 2022) in Life Sciences.

Qualified Ph.D. Entrance Test (PET) 2020 (Conducted by the University of Mumbai in Microbiology)

Masters of Science in Microbiology (2015-2017)

- K.J. Somaiya College of Science and Commerce, Vidyavihar, Mumbai, Maharashtra, India.
- Cumulative GPI: 6.56/7

Research Project titled: Immobilization of Nitrogen fixing organisms onto agro wastes for utilization as plant growth enhancers. **(August 2016-June 2017)**

- Agro-waste are highly nutritious matrix for Microorganisms and it acts as a carrier for their delivery into the soil.
- Compared the effect of self-synthesized plant growth enhancers with chemical fertilizers and other biofertilizers.
(Project under consideration for patent application).

Bachelors of Science in Microbiology (2012-2015)

- K.J. Somaiya College of Science and Commerce, Vidyavihar, Mumbai, Maharashtra, India.
- Cumulative GPI: 6.25/7 (Secured 1st rank in the Microbiology department of the College).

Projects carried out:

- Preparation of biofertilizer using Azotobacter species isolated from soil. 2 types of biofertilizer application were carried out i.e. direct application, and seed coating and efficacy was checked against a control plant. **(4 weeks)**

- Capturing wild *Drosophila* flies and cultivating them to obtain larvae and perform behavioural studies on the larvae. The response of the larvae towards the smell of food and light was studied. **(3 weeks)**
- Preparation of wine with betel leaf using crude set-up as a part of fermentation and presentation of this project at Vigyan Yagna, an exhibition to showcase new talents. **(3 months)**

TECHNICAL EXPERTISE AND SKILLS

Routine Lab techniques	Isolation and identification of cultures from soil, food and water samples, Viable counting methods, Bioassay of drugs, Qualitative and Quantitative analysis of DNA, RNA, Protein samples, Bacteriophage assay, well versed with staining techniques.
Analytical techniques	Western Blot technique, PCR, Paper Chromatography, Gel Electrophoresis and SDS-PAGE Electrophoresis, VITEK and BACTEC.
Software Proficiency	Microsoft Word, Excel, PowerPoint, Canva, Mindmapping
Soft Skills	Experimental Design; Grant Writing; Research Presentation; Report and Manuscript Writing; Technology Development; Multidisciplinary Collaboration; Prioritization Time Management; Problem-Solving; Data Analysis; Troubleshooting

ACCOMPLISHMENTS

1. Received Seed Money of ₹ 100000/- for the “**Study of indigenous phosphate solubilizing bacteria and fungi from agricultural soils and the development of a consortium to replenish soil nutrients**”.
2. Member of the Board of Studies for designing Curriculum for undergraduates and postgraduates. Designed curriculum for S.Y.B.Sc., T.Y.B.Sc., M.Sc.-I and M.Sc.-II.
3. Have set up the Microbiology department of MPSM’s Prabodhan Centre for Research, Nashik. The research centre focuses on analyzing the microbial flora of the soil. The research centre has all the instruments as per the research standards.
4. Part of the team designing the research centre at Somaiya Vidyavihar University, Vidyavihar, Mumbai.
5. Presented a Paper titled “**Study of The Agricultural Microflora in the Tribal Belt of Nashik District Using Azolla as Medium for Paddy Growth and for Improvement of Soil Health**” at the International Conference on Environment, Forestry and Sustainable Agriculture organized jointly by St. Xavier’s College Ranchi, Jharkhand and IASR, Kolkata from November 14-16, 2022.
6. Presented a paper titled “**A Pilot Research Study on Enhancing Soil Health, agroecological and Economic Profitability Using Azolla with Soil Microbiological and Biochemical Technology in Nashik Region**” at One Day National Conference – “**Impact of Education on Rural Development**” organized by the New Research Centre of St. Xavier’s College Mumbai, in collaboration with Rashtriya Uchchar Shiksha Abhiyan (RUSA).
7. Drafted a proposal submitted to NABARD titled- “**Decreasing the dependence on Chemical Nitrogen fertilizer by replacing it with Azolla, improving soil fertility using Soil Indigenous microorganisms and creating a secondary source of income by setting up Azolla cultivation unit in the rural areas of 4 talukas of Nashik district**” of a budget of ₹ 1,14,90,600/-.
8. Led a team of 20 people and 63 farmers to carry out projects in the tribal area of Nashik.
9. Selected for the regional round of the National Bio-Entrepreneurship Competition 2019 organized by BIRAC Regional Entrepreneurship Centre (BREC).
10. Delivered a lecture on “**Towards Greener Entrepreneurship**” to students of A.E. Kalsekar Degree

College on 26th August 2019.

11. Awarded the Best Grassroot Level innovation for the Project “**AgroBeads**” at a National level exhibition, Maker Mela, 2018.
12. Drafted a proposal submitted to DRDO titled-“ **Development of rapid detection mobile kit for Antimicrobial Susceptibility testing**” of a budget of ₹ 25,31,600/- (2017).
13. 1st prize in intercollegiate debate competition organized by Patkar College, January 2016.
14. Active involvement in organizing MICROSCOPE 2014- an intercollegiate event organized by the Department of Microbiology KJSSC.
15. Best student participant in debate competition of LFHS (2010).

PERSONAL INFORMATION

- **Languages Known:** English, Hindi, Marathi, Bengali
- **Date of Birth:** 16/09/1994
- **Hobbies:** Reading, Gardening, Cooking, Listening to music, Writing poems, Doodling.

RESEARCH PUBLICATION

- **Nandi Pooja, Pratik Godbole, Lolly Jain and Kirtikumar Randive (2024) An Overview on Microbial Potential for Sustainable Mine Waste Management: Techniques, Treatment, and Tactics.** Peer-reviewed and referred journal Rastrasant Tukdoji Maharaj Nagpur University.
- Ashruti Patil, **Nandi Pooja** and Joel Noronha (2024) **Application of Azolla and its combination to rice paddy: A green approach for sustainable agriculture development.** Revolutionizing Farming: The Nexus of Education and Technology in India.
- **N, Pooja & U, Kajal & Y, Supriya & T, Reshma & G., Shailaja. (2016). Are students becoming slaves of technology?** International Journal of Advanced Research. 4. 601-605.
DOI: <http://dx.doi.org/10.21474/IJAR01/1524>

REFERENCES

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