

Name: Dr. Sonali Nitin Joshi, Ph.D.

Assistant Professor, Head, Department of Biotechnology

Contact Details (Mention e-mail)-

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Work Experience

- **Teaching: 28 years**
- **Research/Industrial: 8 years**

Personal Profile

- Completed Ph.D. (Microbiology) in the year 1995.
- Worked as CHB faculty in Post Graduate Teaching Department, Microbiology, during Ph.D work
- Joined as fulltime Lecturer in February 1997 at L.A.D. College, Nagpur (Grant In Aid) , promoted as senior Lecturer in 2001 (1997-2004)
- Head, Department of Biotechnology, Sinhgad College of Science, Pune (2004-2008)
- Joined as Assistant Professor at Department of Biotechnology, Fergusson College, Pune (2008) and took charge as Head of Biotechnology Department in 2014 till date (2008-till date)
- Organized and participated in several conferences, workshops, and seminars
- Involved in administrative work of college and SPPU
- Member of selection committees and LIC of SPPU
- Chairperson, Institutional Biosafety committee (IBSC), Fergusson College
- Ph. D thesis evaluation for many students
- Completed one BCUD project
- Recognised PhD guide in Biotechnology and Microbiology (SPPU)
- Publications in reputed journals/books
- Guided several UG and PG students for their project work
- **Granted a Patent for an invention entitled A METHOD OF DETECTION OF STEROLS, by The Patent Office, Government of India.**

Course(s) Taught (Only Titles)

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| 1. Industrial Biotechnology | 6. Immunology |
| 2. Bacteriology | 7. Virology |
| 3. Large Scale Manufacturing Processes | |
| 4. Bioprocess Engineering and Fermentation Technology | |
| 5. Microbial Biotechnology | |

Field of Specialization/Areas of Interests

- Industrial Biotechnology
- Microbial Biotechnology
- Bacteriology

Education

- **Ph.D. – (Microbiology):** from 1990 to 1995

Title of the Thesis: Microbial technology for total biomass production of *Prosopis juliflora* and *Leucaena leucocephala* trees on wasteland.

Name of University / Institution: Nagpur University, Post Graduate Department of Nagpur University

Year of Award: 1995

- **Master of Science/Arts- (Microbiology):** 1990

University/College: Post Graduate Department of Microbiology, Nagpur University

- **Bachelor of Science- (Microbiology):** 1988

College, University, Place : Shri Shivaji Science College, Nagpur (Nagpur University)

Fellowship/Awards/ Certifications/Achievements/Recognitions

1. Indian Council of Agricultural Research (ICAR) fellowship
2. DBT

Member of College Committees/ Professional Bodies and Others

College Level	Professional Bodies	Others
• Internal Quality Assurance Cell, IQAC (Member) • Library Advisory Committee • PG. (Overall Coordination)	Global Biotech Forum	• Chairman, BOS, Fergusson College (Autonomous) • VC Nominee for BOS Biotechnology, Wadia College, Pune • Chairperson, Institutional Biosafety Committee (IBSC) of Fergusson College • BOS Member Savitribai Phule University (till 2022)

Employment History

1) Organization: Lady Amritbai Daga College (LAD), Nagpur

Role: Full time Senior Lecturer (Grant -in-aid)

Duration: 1997-2004

Responsibilities	• Academic duties • Worked as committee member of Admissions, CAP, Examination
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2) Organization: Sinhagad College of Science, Pune

Role: Head, Department of Biotechnology

Duration: 2004-2008

Responsibilities	• Setting up of the Biotechnology Department, Library • Administrative responsibilities of Head and Academic - Teaching
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3) Organization : Fergusson College (Autonomous), Pune

Role : Assistant Professor, Head, Department of Biotechnology

Duration: 2008-till date (Head of the Department since 2014)

Responsibilities	• Overall administration of the department (Teaching and Non-teaching) • Academic and allied responsibilities • Various committees of the College and society
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Research Projects

Title of the Project	Name of Funding Agency	Amount (Rs)	Duration (Year) (From To)	Type (Minor/Major)	Outcome
Development of tyrosinase based electrochemical biosensor for detection of vitamin E analogues	BCUD	1,60,000	2016-2018	Minor	-Patent awarded - Publication

Research Publications in National and International Journals (Recent)

- i. Patil V, Hardikar H, **Joshi S** and Tembe S 'Optical detection of total cholesterol based on dye-displacement method' (2023) Spectrochimica Acta Part A: Molecular and biomolecular spectroscopy, 293, 122425
- ii. **Joshi S** and Tembe, S 'Development of tyrosinase- based electrochemical biosensor for determination of vitamin E analogue' Innovations, 21st November 2017, C.T. Bora College, Shirur.
- iii. Thombre R and **Joshi S** (2016) Industrial production and applications of yeast and yeast products, in Industrial Biotechnology: Sustainable Production and Bioresource Utilization. (Eds) Thangadurai D, Sangeeta J. Apple Academic Press, New Jersey, USA. ISBN: 9781771882699
- iv. Nayak C and **Joshi S**, (2014) Isolation of Oil Degrading Bacteria from Soil and Bioremediation Under In-situ Conditions. International Journal of Environment and Natural Sciences, 3, 123-129. ISSN: 2349-3763
- v. Dhaneshwar S, Tewari K, **Sonali Joshi**, Godbole D and Ghosh P (2011) Diglyceride prodrug strategy for enhancing the bioavailability of norfloxacin. Chemistry and Physics of Lipids (2011) 164, 307– 313. Elsevier, Impact Factor: 2.14

2. Participation in Conferences/Seminars/Symposia/Workshop:

- 1) Workshop on '16srRNA gene and whole genome analysis for microbial identification', organized by Agharkar research Institute Pune, January 29- Jan 31, 2025
- 2) NEP orientation and sensitization programme, organised by the Malviya Mission Centre of IUCAA, May 1- May 15, 2024
- 3) Hands on training workshop on 'Bioinformatics for faculty of life sciences', 21st June to 25th June 2021 organized by Department of Biotechnology, Fergusson College (Autonomous), under DBT STAR College Status
- 4) On Line course on 'Microbial Process for energy recovery from organic waste', 15th February to 21st February 2021, Organized by Pune Knowledge Centre and Agharkar Research Institute (ARI), Pune.
- 5) Participation in International Conference on 'Infectious Diseases and Immunopathology' April 21-24, 2021, organized by Department of Biotechnology, Savitribai Phule Pune University, Pune
- 6) **Joshi Sonali and Tembe Sanket**, 'Development of tyrosinase- based electrochemical biosensor for determination of vitamin E analogue' Innovations, 21st November 2017, C.T. Bora College, Shirur
- 7) **Joshi Sonali and Amol Diwakaran** 'Bioconversion of sugarcane bagasse into second generation bioethanol using yeast sugarcane immobilized biocatalyst system' at 3rd Global Sustainable Biotech Congress, An International conference held at NMU, Jalgaon from December 1- 5, 2014.

Events Organized/Coordinated:

Sr.No	Name of the Event	Name of organizing Institute/ College/ University	Nature of contribution	Dates
1	PG Diploma in Advanced Biotechnology (First batch completed)	Fergusson College and Lupin Ltd. (Coordinator: Dr. Dhanashri Godbole)	Academic contribution	2023-24
2	Gennoideate: Intercollegiate research idea competition (Research presentation and working model competition)	Department of Biotechnology and Gennova Biopharmaceuticals Ltd	Organiser	February, 24, 2024
3	‘Decoding breast cancer: CTCR’s quest for insights in the Indian context’	Department of Biotechnology	Organiser	18 th and 19 th October, 2023
4	Under DBT STAR, UGC – CE (College with excellence), UGC- STRIDE scheme and departmental club FABIOL organised several workshops, talks, projects, competitions	Fergusson College (Autonomous)	Organizer	Throug hout the year
5	State Level Seminar on Recent Advances in ‘Stem Cell Biology and Regenerative Medicine’	Department of Biotechnology, Fergusson College (Autonomous), Pune under the Faculty development programme of Savitribai Phule Pune University	Coordinator	23 rd Februar y, 2018
6	National Conference on “Modern Analytical techniques in Microbiology” (DBT sponsored)	Department of Microbiology, Fergusson College	Organizing member	17 th and 18 th January 2014.

Course Content Developed (e-content)

Course content developed for subjects Large Scale Manufacturing Processes, Bacteriology, Bioprocess Engineering and Industrial Biotechnology, Virology (Both UG and PG)

Consultancy Services

Sr.No	Name of Teacher	Area of Consultancy	Name of Institute/ Industry/ others	Revenue Generated (Rs.)
1	Dr. Sanket Tembe Dr. Sonali Joshi	Soil Analysis	Client: Mr. Pranav Tembe	23,600/-