

## GAYATRI SHROTRIYA

Pune, Maharashtra, India

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## PROFESSIONAL PROFILE

Chemistry educator, researcher, and academic leader with over 16 years of experience in higher education, interdisciplinary research coordination, and academic administration. Expertise in Organic, Environmental, and Applied Chemistry with active research in Photocatalysis and Sustainable Environmental Systems. Proven contributions to NEP-2020 implementation, curriculum design, innovation ecosystems, and institutional quality initiatives. Committed to student mentorship, laboratory safety, ethical research practices, and community-engaged science.

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## RESEARCH INTERESTS

- Photocatalysis and Sustainable Chemical Processes
  - Environmental Restoration and Water Quality Assessment
  - Green Chemistry and Biodegradable Materials
  - Soil–Water Analysis and Aquaculture Systems
  - Applied Chemistry for Community and Ecosystem Development
  - Innovation, IP Literacy, and Academia-Industry Interface
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## EDUCATION

**NET** (Chemical Sciences), 2009

### **M.Sc. Chemistry (Organic)**

University of Pune, India | 2002 | First Class

### **B.Sc. Chemistry**

University of Pune, India | 2000 | Distinction

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## ACADEMIC APPOINTMENTS

### **Assistant Professor, Department of Chemistry**

Modern College of Arts, Science & Commerce, Ganeshkhind, Pune

Aug 2010 – Jun 2025; Dec 2025 – Present - Teach undergraduate and postgraduate courses in Organic, Inorganic, Environmental, Forensic, and General Chemistry. - Developed curriculum aligned with NEP-2020 and interdisciplinary learning models. - Coordinated laboratory management, safety compliance, and resource planning. - Organized CHEMIAD, student

research events, and academic seminars. - Mentored students in research, career planning, and academic development.

### **Visiting Faculty – Engineering Chemistry**

COEP Technological University, Pune

Aug 2025 – Nov 2025 - Delivered foundational chemistry instruction to First-Year B.Tech students. - Guided project-based learning and applied chemistry modules.

### **Research Coordinator**

Foundation for Interdisciplinary Research, Pune

Jul 2025 – Dec 2025 –Led interdisciplinary environmental and applied science projects. - Managed ethics, compliance, stakeholder coordination, and reporting. - Facilitated collaborations among researchers, institutions, and sponsors.

### **Assistant Professor, Department of Chemistry**

K. V. Pendharkar College, Dombivli | Jun 2009 – Apr 2010

### **Assistant Professor (Ad-hoc Appointments)**

Abasaheb Garware College & Fergusson College, Pune

2003–2008 (multiple terms)

### **Chemistry Subject Coordinator / e-Tutor**

Techknit IT-Enabled Services | 2004–2007 - Delivered online chemistry education to international learners. - Managed digital content, training, and academic coordination.

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## RESEARCH PROJECTS & COLLABORATIONS

- Photocatalysis research.
- Ramnadi River Restoration Project (environmental monitoring and remediation strategies).
- Aquaculture and ecosystem-based water analysis studies.
- Soil and water quality assessment initiatives for local communities.
- Desalination study in association with Thane Municipal Corporation.

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## PATENTS & INNOVATION

- Indian Patent: Process innovation in synthesis of biodegradable polymer materials.
  - Innovation Ambassador, Ministry of Education (Government of India).
  - Institutional Coordinator – KAPILA (IP Literacy & Awareness Program).
  - Active contributor to Institution Innovation Council (IIC) initiatives.
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## TEACHING EXPERIENCE

Courses taught include: - Organic Chemistry - Inorganic Chemistry - Environmental Chemistry - Forensic Chemistry - Biochemistry - Industrial Chemistry - Engineering Chemistry - Indian Knowledge Systems (IKS)

Teaching approaches emphasize: - Outcome-Based Education (OBE) - Experiential and project-based learning - Blended and digital pedagogy - Remedial mentoring and inclusive teaching

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## ACADEMIC LEADERSHIP & SERVICE

- Member, Board of Studies
  - NEP-2020 Implementation Committee
  - NAAC Criterion III Committee
  - Examination and Prize Distribution Committees
  - Syllabus design contributor (IKS and Forensic Science with Regional Forensic Science Laboratory, Pune)
  - Coordinator for academic seminars, workshops, and student engagement programs
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## PROFESSIONAL AFFILIATIONS

- Life Member, Vidnyan Bharati
  - Life Member, Indian Association of Chemistry Teachers
  - Life Member, Indian Women Scientists Association
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## CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- NET (Chemical Sciences), 2009
  - Certified Innovation Ambassador (MoE, Govt. of India)
  - FDP: Innovation & Entrepreneurship (IIC, MIT-ADT University)
  - FDP: NEP-2020 Sensitization (UGC Malaviya Mission)
  - Ph.D in Astrology
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## COMMUNITY ENGAGEMENT & OUTREACH

- Resource Person for Laboratory Safety and Student Well-being programs.
  - Organizer of environmental awareness drives, tree plantations, and river conservation campaigns.
  - Mentor for Vidyarthi Vidnyan Manthan and state-level science outreach programs.
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## PERSONAL DETAILS

Date of Birth: 23 May 1980

Address: 1, Sudarshan Apt., Pashan-Sus Road, Pashan, Pune – 411021, India

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