



Shri Sharda Bhavan Education Society's
SHANKARRAO CHAVAN MAHAVIDHYALAYA,
ARDHAPUR, District: NANDED (Maharashtra)



(Affiliated to Swami Ramanand Teerth Marathwada University, Nanded)

FACULTY PROFILE

Personal Information:

Name of Faculty : Fulare Pooja Bapurao

Designation : Assistant professor

Department : Chemistry

Residential Address : Flat 5, wing no 2, Avani plaza, nilgiri society, devgiri nagar,
Bhawsar chowk, Nanded-431605

Date of Birth : 11/09/1992

Date of Appointment : 13/07/2023

Marital Status : Married

E-Mail : pbfulare1993@gmail.com

Language Proficiency : Marathi, English, Hindi



Academic Qualification:

Course	Board/University	Year of Passing	Percentage	Division	Subjects
CSIR-NET-JRF	Joint CSIR-UGC	2018	AIR-83	-	Chemistry
MH-SET	Savitribai Phule University, Pune	2018	-	-	Chemistry
GATE	IIT, Guwahati	2018	-	-	Chemistry
B.Ed	S.R.T.M.U.Nanded	2019	73.36	1st class	Science method
M.Sc	S.R.T.M.U.Nanded	2015	60.68	1 st class	Organic Chemistry
B.Sc	S.R.T.M.U.Nanded	2013	71.12	Distinction	Chemistry, Botany, computer science
H.S.C.	Latur Board	2010	53.00	2 nd class	Chemistry, physics, Biology, Crop science
S.S.C	Latur Board	2008	70.76	1 st class	Science, mathematics, English, Social Sci. Marathi, Sanskrit,

Research Qualification:

Course	University	Year	Topic of Research
Ph.D.	National Chemical laboratory, Pune	Appeared	“Resin Formulation for 3D Printing Applications”

Teaching Experience: **1 Year** of experience as Assistant professor (CHB) for **UG** in Science

College, Nanded. (2016-2017)

Six month of experience as Assistant professor (CHB) for **PG**

in S.R.T.M. University, Nanded (2017-2018)

Research Experience:

➤ **Multistep organic synthesis:**

Multistep synthesis of Polymerizable acrylate resin formulation. Purification and structural characterization of these monomers by ¹H, ¹³C NMR, FT- IR, MALDI TOF, and HRMS. Multi-step organic synthesis methodology includes reactions like electrophilic aromatic substitution, Reduction reaction, Vilsmeier Haack Formylation reaction, acrylation reaction, acryloyl chloride synthesis from acrylic acid etc., for the synthesis of functional monomers.

➤ **Polymerizations**

Expertise in designing, developing, and synthesizing acrylate functionalized multistep monomer and polymerises it at the stage of printing with different properties like good resolution, higher tensile strength, transparency, phosphorescence to the printed polymer object. And polymerise styrene methyl methacrylate etc., by free radical, RAFT polymerization.

➤ **Sensitive reactions**

Experience in carrying out sensitive reactions by maintaining an inert atmosphere (Nitrogen or Argon) by applying repetitive freeze-pump-thaw cycles using liquid N₂. Experience in using the Schlenk line for metal-catalyzed cross-coupling polymerization reactions that need to be carried out in inert conditions.

➤ **Polymer characterizations**

Hands-on experience in using several techniques used for the characterization of polymers. Structural characterization of polymers by 1D and 2D NMR spectroscopy, FTIR, and elemental analysis. The molecular weight determination of polymers using gel permeation chromatography using a triple detector (UV, RI, and light scattering), ¹H NMR, and MALDI-TOF.

➤ **Other Techniques**

Sound knowledge Morphological characterization of polymers using FE-SEM, HR-TEM, profilometer, and AFM. Polymer solution aggregated or microspheres Dynamic Light Scattering (DLS), Zeta potential and CD spectrometer. Experience in sample preparation and morphology interpretation of Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), MALDI-TOF, and HRMS.

➤ **Thermal Characterizations**

Experience in using thermal characterization instruments like TGA to determine degradation temperature, thermal stability, and degradation profile of polymers, small molecules, and organic-inorganic composite. DSC to determine the critical parameters like TG, TM, and TC of polymers and small molecules.

➤ **Instrument handling**

Gel Permeation Chromatography (high and room temp), UV-Vis spectrophotometer, Fluorescence spectrophotometer (photoluminescence, Quantum yield, lifetime), FTIR, Thermogravimetric Analysis (TGA), Differential Scanning Colorimetry (DSC), material development for 3D printing application using Direct ink writing (DIW) (Hands-on experience), digital light processing (DLP), Fused Deposition Modeling (FDM), and Stereolithography (SLA) 3D printer.

Research Papers Published – International/National Journal:

Sr. No.	Name of Research Paper	Name of Journal	Level of Journal	ISSN or ISBN No.	Vol. No.	Page No.
1						

Research Paper Published – Conference Proceedings:

Sr. No.	Name of Research Paper	Organised By	Name of Conf.	Level of Conf.	ISBN No.	Vol. No.	Page No.
1							

Conference/Seminars/Workshops Attended:

Sr. No.	Name of Programme	Organised By	Year & Duration	Level of Conference
1	Polymer Science and technology(<i>SPSI-MACRO-2022</i>)	Jointly hosted by CSIR – NCL-Pune, IISER-Pune.	2-4.nov.2022	International Conference
2	Poster Presented Polymer Science and technology(<i>SPSI-MACRO-2022</i>)	Jointly hosted by CSIR – NCL-Pune, IISER-Pune.	2-4.nov.2022	International Conference
3	AM-tech expo 3D Printing Exhibition and Conference	Cooperation with India's leading additive manufacturing trade fair AMTech Expo, Rapid. HITEX exhibition center Hyderabad	2,3 Dec.2022	International Conference
4	Poster Presentation "NCL-RF Annual Students Conference"	students of CSIR - National Chemical Laboratory (CSIR-NCL), Pune	29,30 Nov.2022	National

5	"NCL-RF Annual Students Conference"	students of CSIR - National Chemical Laboratory (CSIR-NCL), Pune	29,30 Nov. 2021	National
6	Project Formulation U.G. & P.G. Students"	Research & Consultancy Unit Nanded	25.Sept.2013	State level workshop
7	Research paper writing & presentation skill	S.R.T.M.U. Nanded	17.sept.2014	State level workshop
8	National Service Scheme workshop	S.R.T.M.U.N. At. Basmath Dt. Hingoli	28-30 oct.2010	National
9	"Advances in Polymer Science"	PSE division, NCL-Pune	Nov-2019	National
10	Scope of UG & PG Syllabus (as per NEP-2020)	Dept.of chemistry,N.E.S.Science college, Nanded	28 th oct. 2023	University
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Orientation/Referesher/Short Term Courses Attended:

Sr. No.	Name of Organiser	Name of Programme	Year of Programme	Duration (in Days)
1	NCL, Pune	Orientation course	2019	3

Awards/Honuors:

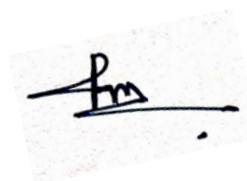
Sr. No.	Name of the Award	Awarding Agency	Level	Year

Co-Curricular/Extra Curricular Activities:

Sr. No.	Type of Activity	Year	Event/Programme	Place
01	First Prize in group Dance	2011	Annual Social Gathering	N.E.S. Science College, Nanded
02	Second Prize in Cricket	2011	Annual Social Gathering	N.E.S. Science College, Nanded
03	ladies representative	2011-2012		N.E.S. Science College, Nanded

Technical Skills:

- Familiar with MS Office package including MS Word, PowerPoint, Excel, Chemdraw, Origin, ACD NMR processor, Good knowledge in database searching like Chemical Abstracts, SciFinder, Web of Science.
- Instrument operation and technical understanding of 3D Printer (DIW). Digital light processing (DLP), Fused Deposition Modeling (FDM), and Stereolithography (SLA) 3D printer.
- Served as a departmental safety coordinator with hands-on training in handling fire extinguishers and maintaining waste solvent disposal records.
- Involved in procurement of chemicals and instruments for R&D purposes in the laboratory.
- Work as Ladies representative in college UG Programs.



Place : Ardhapur.

Pooja Bapurao Fulare

Date : 08/12/2023

Assistant Professor of Chemistry