

# Curriculum Vitae

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**Date of Birth:** 15/09/1987



## Educational Qualifications

Class/ Degree	Specialization	Institution	University	Year	% / CGPA	Class
Ph.D	Chemical Technology	College of Engineering & Technology Akola	S.G.B.A.U Amravati	2018	NA	Degree Awarded
M.Tech	Chemical Engineering	College of Engineering & Technology Akola	S.G.B.A.U Amravati	2012	8.81	Distinction
B.Tech	Plastics and Polymer Technology	Laxminarayan Institute of Technology, Nagpur	R.T.M.N.U Nagpur	2009	68.08%	First
M.B.A	Material Manufacturing Management	Lok Mahavidyalaya Wardha, Maharashtra State, India.	YCMOU, Nashik (Open University)	2013	60.00 %	First

**Ph.D Research:** Synthesis and Characterization of Polyurethane using Castor Oil as a Biobased Source of Polyol and Its Applications.

**M.Tech Project:** “Synthesis of Epoxidized Cottonseed Oil and Its Application over Epoxy System”.

**Key Research Area:** Biopolymers, Polymer Composites, Polymer Materials

## Experience

S.N	Organization	Post	From To	No. of Years/Months
01	Department of Plastics & Polymer Engineering, MIT, Aurangabad	Assistant Professor	19/12/2020 To Till Date	07 Months
02	Department of Polymer Tech. College of Engineering & Tech. Akola	Assistant Professor	03/07/2012 To 15/05/2013	10 Months 8 Days
03	Department of Polymer Tech. College of Engineering & Tech. Akola	Assistant Professor	19/06/2013 to 15/05/2014	10 Months 26 Days
04	Department of Polymer Tech. College of Engineering & Tech. Akola	Assistant Professor	24/06/2014 To 16/05/2015	10 Months 22 Days
05	Department of Polymer /Chemical Engineering, College of Engineering & Tech. Akola	Assistant Professor	23/06/2015 To 07/05/2016	11 Months 15 Days
06	Department of Chemical Engineering, College of Engineering & Tech. Akola	Assistant Professor	20/06/2016 To 06/05/2017	11 Months 17 Days
07	Department of Chemical Engineering, College of Engineering & Tech. Akola	Assistant Professor	20/06/2017 To 05/05/2018	11 Months 16 Days
08	Department of Chemical Engineering, College of Engineering & Tech. Akola	Assistant Professor	03/07/2018 To 27/04/2019	9 Months 24 Days
09	Department of Chemical Engineering, College of Engineering & Tech. Akola	Assistant Professor	10/06/2019 To 25/04/2020	10 Months 15 Days

### List of Courses Taught at UG Level

- Physical Chemistry of Polymers
- Heat Transfer (Th. + Pr.)
- Honours / Minors (Introduction to 3 D Printing)
- Polymer Blends and Composite
- Polymer Science and Technology
- Testing and Product Design of Plastics (Th. + Pr.)
- Polymer Chemistry (Th. + Pr.)
- Process Calculations
- Mechanical Operations (Th. + Pr.)
- Plant Design and Project Engineering

## Additional Assignments / Duties

### At MIT (Dec 2020 to till date)

- Placement Officer (IPT and Placement) Department of Plastic and Polymer Engineering
- E-Magazine Coordinator
- Departmental FY and SY Admission Improvement
- Department Meeting Coordinator
- Department Public Relation Coordinator
- Worked for the various BAMU, Aurangabad assignments such as setting of question paper, external practical examiner of University Examination.
- Assists for submission of new proposals (SERB, RGST)

### At COET Akola (July 2012 to Apr 2020)

- Worked as an active team member for **NIRF** (National Institutional Ranking Framework) for the COETA in the year 2015-16, 2016-17, 2017-18 and 2018-19.
- Worked for Teaching and Learning Criteria for the Chemical Engineering Department for **NAAC** activity for the College (2016-17).
- Worked as **Training & Placement** Co-ordinator for Dept of Chemical Engineering for 04 Years.
- Worked as a Co-ordinator local industrial visit for Dept of Chemical Engineering.
- Worked as lab in-charge Mechanical Operation Laboratory
- Worked as a co-ordinator Technothon, PolyChem, Chem-Pro, a national level technical paper/poster/project model presentation competition.
- Class Teacher B.Tech Second Year Chemical Engineering
- Assists for submission of new proposals (Research Promotion Scheme to AICTE, DST-FIST)
- Testing Consultancy for MSSC Ltd Akola (Mahabeej).
- Worked for the admission promotion of the college
- Worked for the various S.G.B.A.U assignments such as setting of question paper, external practical examiner, assessment of answer sheet of University Theory Examination.

## Membership of Professional Bodies

- Indian Society for Technical Education, Membership Number: LM 101113

## Research Project Guided

### M.Tech (Co-Guide)

- 1) Mr. Shyam Wakode, Modification in refining process of cottonseed oil by chemical treatment (2018)
- 2) Mr. Amol Sonawane, Synthesis and Characterization of Polyurethane Using Castor Oil, PPG and TDI (2017)
- 3) Ms. Pooja Bhujbal, Ecofriendly Utilization of Solid Waste for Value Added Products (2017)
- 4) Ms. Prachi Thakur, Synthesis and Characterization of Paper Using Water Hyacinth Weeds (2016)

- 5) Ms. Namita Patil, Thermo-mechanical analysis of foam based on castor oil polyol (2015)
- 6) Ms. Bakul Gayki, Synthesis and Characterization of Polyurethane Adhesive Using Castor Oil (2015)

## **B.Tech**

Number of Guided Students: 25

### **Project Titles**

- 1) Banana fiber composite using unsaturated polyester.
- 2) Pyrolysis of waste polyolefinic waste
- 3) Extraction of amino acid human hairs
- 4) Extraction of amino acids using soya-deoiled cake.
- 5) Synthesis of epoxidized cottonseed oil using epoxidation process
- 6) Synthesis of biopolyol using soybean oil

### **Computer Software Proficiency**

- Knowledge of MS Word
- Knowledge of MS Excel
- Knowledge of MS Power Point Presentation

### **Seminar / Workshop / Industrial Training/ STTP/FDP/ Conference Attended**

#### **a) National Conference**

- 1) S.S. Tayde, P.V. Thorat, S.C. Makwana, “Rapid Prototyping for artificial organs: A Review”, in national conference 10-Pointer, **VNIT Nagpur**, Jan, 2016.
- 2) S.S. Tayde, Aibel Mathew, Amol Sonawane, “Wood Plastic Composite” in the National Conference “Rangotsav-2013” , **ICT, Mumbai**, Maharashtra State, India.
- 3) S.S. Tayde, V.C. Renge, “Studies on Synthesis of Epoxidized Cottonseed Oil and Its Application” in the Poster Presentation in the National Conference on “Recent Advances in Chemical Engineering (RACE-2012)” , **UDCT Jalgaon**, Maharashtra State, India.
- 4) S.S. Tayde, “Polymer Nanocomposites” in the Poster Presentation at “Polyimpetus 2008” - a National Level Paper & Poster Presentation Event, **L.I.T, Nagpur**, Maharashtra State, India.

#### **b) International Conference**

- 1) S.S. Tayde, “**Persistent Organic Pollutants: A Transverse Boundary Traveler**” poster presented at International Conference on Persistent Organic Pollutants at **NEERI Nagpur-2014**.

2) S.V. Khedkar, S.S. Tayde, “**Acoustic Cavitation: A Future Disinfection Technology**” in the Poster Presentation at the International Workshop on “Advances in Disinfection Technologies” at **NEERI, Nagpur**, Maharashtra State, India (2011).

#### **STTP/ FDP/ Workshop /Seminar/Industrial Training Attended**

1) Completed 5-day online FDP on the theme “**Inculcating Universal Human Values in Technical Education**” organized by All India Council for Technical Education(AICTE) from 1 February, 2021 to 5 February, 2021.

2) Completed training program titled “**Additive manufacturing using FDM 3D Printing Technology**” organized at CIPET : CSTS Aurangabad from 17/02/2021 to 18/02/2021 (16 hours of training)

2) One week online Faculty Development Program on “**Outcome Based Education: A Step Towards Excellence**” from 11-15 May 2020 under Margdarshan Scheme of AICTE, New Delhi.

2) Online Webinar on “**Environmental Sustainability**” organized by MIT-Centre for Advanced Materials Research and Technology, Department of Plastic & Polymer Engineering on **6th July, 2020**.

3) Online webinar on “Industry 4.0” organized by Mechanical Engineering Dept, Priyadarshani Bhagwati College of Engineering, Nagpur, on 14 June 2020

5) Attended One Day Workshop on “**Industrial Safety**” organized by College of Engineering and Tech, Akola and Rallis India Ltd, Akola on date 13 Sept 2019.

6) AICTE-ISTE approved Induction / Refresher Programme “**Role of Ethics Human Values & Behavioral Sciences on Effective Working of Faculties**” held during 22/04/2019 to 26/04/2019 at COET Akola.

7) AICTE-ISTE approved short term training program on “**Recent Trends in Renewable Energy Resources**”, during 19<sup>th</sup> April to 28<sup>th</sup> April 2018 at COET Akola.

8) ISTE approved short term training program on “**Sustainable Materials and It’s Engineering Applications**”, during 20<sup>th</sup> April to 29<sup>th</sup> April, 2016 at COET Akola

9) ISTE approved short term training program on “**Low Cost Automation In Industries**”, during 21<sup>st</sup> April to 03<sup>rd</sup> May 2014 at COET Akola.

10) Short Term Training Program, Under TEQIP Phase-II, on “**Advances In Chemical Engineering**” during 21 October to 25 October 2013, at Chemical Engineering Department, MITS Gwalior (M.P).

11) ISTE approved short term training program on “**Analytical Tools for Engineering Research**” during 16<sup>th</sup> December 2013 to 25<sup>th</sup> December 2013, at Textile Engineering Dept. JDIET, Yavatmal.

### **Industrial Training**

1) Completed Modular Training Program at **RCF Thal Ltd**, on “**Overview of Unit Operations and Unit Processes with Plant Visit**” from 16/12/2019 to 21/12/2019.

2) Five Weeks In-Plant Training from 12<sup>th</sup> May 2008 to 12<sup>th</sup> June 2008 at **VIP Industries Ltd.**, Nashik, Maharashtra State, India.

### **Invited Talks / Expert Lecture Delivered**

- Delivered Expert Lecture at Plastic and Polymer Engineering Department under the Value Added Courses on topic “**Technologies and Material Used for Polymer 3D Printing**” in June 2021.
- Delivered Expert Talk at Govt. Polytechnic Amravati on “**Polyurethane Technology**” in April 2016.

### **Intellectual Property Rights**

- Aniruddha Chatterjee, Shyam Gajanan Tonde, Vijendra Rajendra Chaudhari, **Saurabh Suresh Tayde**, Ajinkya Madan Satdive, Chinmay Hajra, Bhagwan Toksha, Shravanti Joshi, Debasree Kundu, “A Process for Eco-Friendly Sono-Chemical Synthesis of Activated Carbon Nano-Particles Grafted Layered Double Hydroxide Nano-Adsorbent” Indian Patent, **Application No. 202121027842, Filing Date: 29/06/2021**
- Tayde Saurabh, Thorat Prashant, A Novel Natural Polyol (Castor Oil) Based Polyurethane Adhesive For Wood Substrates, Patent Number : 201721036915, CBR Number: 20029  
CBR Date: 17/10/2017

### **List of Research Publication**

#### **Papers In National / International Journal**

S.N	Title of Paper	Name of Authors	Journal	Vol. Pg. No. , Year of Paper Publication
1	Cellulose bionanocomposites for sustainable planet and people: a global snapshot of preparation, properties, and applications	Yogesh Khairnar, Dharmesh Hansora, Chinmay Hazra, Debasree Kundu, Saurabh Tayde, Shyam Tonde, Jitendra Naik, Aniruddha Chatterjee	Carbohydrate Polymer Technologies and Applications	2 (2021) 100065
2	“Castor Oil: A Sustainable and Natural Source of Raw Material for Polyurethane Foam Synthesis”	S.S.Tayde, P.V. Thorat	International Journal of Polymer Science & Engineering	ISSN 2455-8745, vol. 5, Issue 2, Dec 2019, pp. 18-30.
3	Synthesis of Polyurethane Coating Using Castor Oil as a Bio-polyol and Its Characterization,	Saurabh Tayde, Prashant Thorat	International Journal of Scientific Development and Research	April 2017, Volume 2, Issue 4 ISSN: 2455-2631.
4	Composite based on eri-silk with unsaturated polyester resin”	S.K Agrawal, V.M. Patil, S.S. Tayde,	Asian Textile Journal	December 2016, pp. 67-72.
5	A Review on Synthesis and Characterization of Castor Oil Based Polyurethane Adhesive	Bakul K. Gayki, P.V. Thorat, S.S. Tayde	International Journal of Emerging Technology and Advanced Engineering	ISSN 2250-2459, Volume 5, Issue 3, March 2015
6	Effect of Epoxidized Cottonseed Oil on Epoxy Resin and Its Thermal Behavior	S.S. Tayde, P.V. Thorat	Int.J. ChemTech Res.2014-15	07(01), pp 260-268. CODEN (USA): IJCRGG ISSN: 0974-4290 Vol.7, No.01, pp 260-268, 2014-2015.

7	“Epoxidation Of Vegetable Oils: A Review”	S.S. Tayde, V.C Renge, M. Patnaik	International Journal of Advanced Engineering Technology	E-ISSN 0976-3945(Issue IV, Oct.–Dec. 2011, Print Pages 491-501)
8	“Studies on Synthesis of Biobased Epoxide Using Cottonseed Oil”	S.S. Tayde, V.C Renge, M. Patnaik	International Journal of Advanced Engineering Research and Studies	E-ISSN 2249–8974, Vol. I, Issue II, Jan.–Mar. 2012, Print Pages 279-284
9	“An Overview On Waste Plastic Utilization In Asphaltting Of Roads”	A.P. Gawande, S.S. Tayde et al.	Journal of Engineering Research and Studies	E-ISSN 0976-7916(JERS, Vol. III, Issue II, April-June 2012, Print Pages 01-05)
10	1D Sub-10 nm Nanofabrication of Ultrahydrophobic Ag@TiO <sub>2</sub> Nanowires and Their Photocatalytic, UV Shielding and Antibacterial Properties	Aniruddha Chatterjee, Saurabh Tayde et al.	Powder Technology (Elsevier)	Paper Communicated

### Books Published

- S.S. Tayde, P.V. Thorat, Bakul Gayki, “Synthesis and Characterization of Polyurethane using Castor Oil: An Cost Effective Adhesive for Wood Substrate” published by Lambert Academic Publisher, Germany, ISBN 9783659924569, Year 2016.
- P.V. Thorat, S.S.Tayde, S.N. Nemade, “Banana and Glass Fiber Hybrid Biocomposite: A Novel and Cost Effective Composite”, published by Lambert Academic Publisher, Germany, ISBN 9783659432552. Year 2014.
- S.S. Tayde, V.C. Renge, M. Patnaik, “Synthesis of Bio-Epoxide and Its Application on Epoxy System: Epoxidation Process of Cottonseed Oil” published by Lambert Academic Publisher, Germany, ISBN 978384594353. Year 2012.

### Book Chapters Communicated



S.N	Name of The Book	Title of the Chapter	Publisher
1	Bioaugmentation Principles, Techniques and Applications in Remediation	Bioaugmentation in the bioremediation of metals and radionuclides	CRC Press and Taylor & Francis Asia Pacific
2	Genetically Engineered Organism in Bioremediation"	Application of genetically modified microorganisms for the reduction of the toxicity of hazardous compounds"	CRC Press and Taylor & Francis Asia Pacific
3	Biodegradable and Environmental Applications of bionanocomposites	Biodegradable mechanism of cellulose based bionanocomposites	Springer Nature Switzerland AG
4	Flammability properties of the bionanocomposites	Flammability properties of the bionanocomposites reinforced with fire retardant fillers.	Springer Nature Switzerland AG

### Joint Project with Industry

- Joint project with Avika Agro Industries, Akot, on “Synthesis of bioplasticizer using cottonseed oil by epoxidation process” (2017-18).
- Joint project with Akola Chemicals Pvt Ltd, Akola, on “Recovery of protein from silk waste” (2016-17).

### Research Proposals Submitted As Co-PI

- Submitted research proposal as a Co-Principal Investigator on “Nanoparticle Biogenesis: New Generation Ecofriendly Nanofertilizer for Sustainable Agriculture with Ameliorating Crop Yield and Environmental Safety of Their Use”, CRG, SERB, New Delhi, Submit by 15/02/2021.
- Submitted research preproposal as a Co-Principal Investigator on “New Generation Ecofriendly Bio-nano Fertilizer Using Fish Waste for Sustainable Organic Farming with Value Added End to End Solution for Ameliorating Crop Yield”, RGST, Govt. Of Maharashtra.

### Google Scholar Citations (Till Date)

- Citations = 391
- h-index = 6
- i10-index = 6

Date: 20/07/2021

Place: Aurangabad