

Faculty Profile

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(Assistant Professor)

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Educational Qualification: B.Tech. , M.E., Ph.D. (Chemical Engineering).

Teaching and Industrial Experience: above 13 years

Area of research: Packed bed solid state fermenter, foam bed reactor.

Research paper:(Since 2010: Citations: 32; h-index: 2 and i10- index: 1)

- 1) A.M.Gujarathi., A.Sadaphal ., **G.A.Bathe** . (2015). Multi-Objective Optimization of Solid State Fermentation Process. *Materials and Manufacturing Processes*. 30(4).511-519.
- 2) **G.A.Bathe**, A.K. Joshi, B.L.Chudhari. (2014). Predicting higher heating values of lignocellulosic fuels using lignin. *Accepted in APCBEE Procedia Elsevier*.
- 3) **G.A.Bathe**, V.S. Patil, T.D. Deshpande, A.M. Gujrathi.(2013).Temperature Studies in the Growth of *Aspergillus Oryzae* on Jowar Straw in Packed-Bed Solid State Fermenter (PBSSF) - A Modeling Approach. *Research and reviews J. of Engg. & Tech.***2,46-49**.
- 4) **G.A.Bathe**, V.S.Patil,A.S.Chaurasia. (2012). Study on Temperature Gradients and Protein Enrichment by *Aspergillus oryzae* in Solid-State Fermentation on Packed Bed Bioreactor Using Jowar (Sorghum) Straw as Substrate. *Journal of Sustainable Bioenergy Systems*. **2, 33-36**.
- 5) Satish V. Patil, **G.A.Bathe**, A.V.Patil, R.H.Patil, B.K.Salunke.(2009). Bioflocculant EPS production by using *B.subfilis*. *Advance Biotech research journal*, **4-7**.
- 6) Kilas Wasewar , **G. A. Bathe**.(2005).Pervaporation Process for Alcohol Recovery from Mollasses” *N. Chemical Journal* , **.5-7**.

- 7) S.V. Patil, B.K.Salunke, **G.A.Bathe**, R.B.Salunke, C.D.Patil, D.M.Patil.(2009). In vitro study of an antibacterial and antioxidant activity of *Helicteres Isora.L*”, *Herbal Tech Industry* , **06-10**.
- 8) Satish Patil, C.D.Patil, B.K.Salunke , R.B.Salunke , **G.A. Bathe**, D.M.Patil.(2010). ”Studies on characterization of biofloculant exopolysaccharide of *axotobacter indicus* and its potential for wastewater treatment” *Appl. Biochem biotecnol*, Received 23 march / accepted 2 august 2010.

Research projects

Funding Agency	Project Title	Period	Amount Sanctioned	Whether Principal or Co-Investigator
UGC	Temperature gradients studies in packed bed solid state fermenter	2 years	1,30,000/-	Principal investigator
RGST, Mumbai	Preparation of biofertilizer and biopesticide from local farmers	3 years	20,80,000/-	Co-Investigator
TEQIP	Channeling effect studies on the performance of packed bed bioreactor	2 years	4,00,000/-	Principal investigator

Paper/poster presented at International/National Level

- 1) G.K.Kalyankar, H.D.Chaudhari, G.A.Bathe, U.K.Kharul.(2015).Preparation and characteraization of ABPABI based membranes by phase inversion. 11th Annual session of students chemical engineering congress.SCHEMCON.183.
- 2) Tushar Yadav, S.K.Sonar,S.Mayadevi, J.K.Kim, L.C.Campos, L.Ciric, **G.A.Bathe** .(2015). Development of spinel doped TiO₂ for Adsorption of Congo Red Dye. *International Conference on Sustainable Chemistry & Engineering*.1-2.
- 3) Presented a research paper on “Correlations for predicting higher heating values of solid fuels from proximate analysis” in an international conference organized by **NMU- Jalgaon, Global Biotech Forum- Nagpur and Cetys University- Mexico**.(1-5 December 2014).

- 4) Presented a research paper on “Predicting higher heating values of lignocellulosic fuels using lignin” at **Paris, France** organized by ICBEE – 2014. (15-16 September 2014).
- 5) Presented a scientific paper on “Temperature Gradients in Packed Bed Solid State Fermenter” at Port Dickson, **Kuala Lumpur, Malaysia** organized by ICCE. (27th to 29th May 2011).
- 6) Presented paper on “Microbial exopolysaccharide as flocculating agent for industrial waste treatment” at two days National Conference organized by School of Environmental and Earth sciences, North Maharashtra University, Jalgaon.
- 7) Presented poster on solid state fermenter at School of Chemical Sciences, NMU , Jalgaon (26th Dec.2011).
- 8) Presented a review paper on packed bed solid state fermenter at two days National Conference on “Environmental Surveillance for Natural Resource Mangement” organized by School of Environment and Earth Sciences, NMU, Jalgaon (9th and 10th Jan.2012).

Academic staff college orientation/Refresher course attended

Name of the course	Place	Duration	Sponsoring agency
Refresher course	JNU, Delhi	04/04/11 to 29/04/11	UGC, Delhi
Staff development programme	NMU, Jalgaon	15/06/11 to 30/06/11	AICTE, Delhi
Orientation programme	NMU, Jalgaon	02/12/2009 to 29/12/2009	UGC, Delhi
STTP	IIT, Guwahati	09/05/2005 to 14/05/2005	AICTE, Delhi
Staff development programme	Educational Resources Centre, New Delhi	22/04/2008 to 25/04/2008	NMU, Jalgaon
STTP	MAE, Pune	13/12/2004	AICTE, Delhi

		to 18/12/2004	
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Memberships:

- 1) Fellow membership of international congress of chemistry and environment (F.I.C.C.E.)
- 2) Life member of the Indian society for technical education (ISTE)

Invited Lectures / Expert

Sr. No.	Title of Lecture/Academic Session	Title of Conference/Seminar etc	Organized by
1	Expert for technical session	SCHEMCON-2015	Student's Chapter of IChE, Pune.
2	Engineering aspects of solid state fermenter	Seminar for chemical engineers (for UG students)	Anuradha Engineering College, Chikhli
3	Expert for NBA mock visit	For pre-preparation of NBA	MIT Academy of Engineering
4	Worked as a Judge for poster presentation competition	World Ozone Day-2012	School of Environmental and Earth Sciences
5	Visiting Faculty	For Environmental Science and Technology in the academic year 2008-09	SEES, NMU, Jalgaon
6	Expert in GATE coaching programme and Interview Technique Workshop	GATE Coaching Programme	T&P Cell and Career Counseling (UGC XI Plan)

7	Engineering aspects of solid state fermenter	Invited Lecture	School of Life Sciences, NMU, Jalgaon
8	Governing Body Nominee (Subject Expert) for Pune University	Selection committee member	K.K. Wagh Institute of Engineering Education and Research, Nashik

Workshops attended

1. Attended Workshop on “ Process Equipment Design” sponsored by Savitribai Phule Pune University and organized by Department of Chemical and Mechanical Engineering, MIT’s Academy of Engineering, Alandi(D), Pune.(27th to 29th November 2014).
2. Attended workshop on “Effective Teaching & Learning Pedagogy” sponsored by TEQIP and ISTE – WPLP at Trivandrum, Kerla. (5th to 7th February 2014).
3. Participated in TEQIP-II sponsored one day workshop on “Comsol Multiphysics Modeling” organized by UICT, NMU, Jalgaon and Comsol multiphysics Pvt. Ltd. Bangalore.(30th October 2014).
4. Attended one day workshop on “Recent Advancements in Chemical Sciences and Technology” at UICT, NMU, Jalgaon. (21st September 2013).
5. Attended two days workshop on “Role of Bio-Energy in Sustainable Growth” sponsored by AICTE at MIT Academy of Engg., Pune.(30-31 August 2013).
6. Attended one week Industry-Academia Workshop on “Technology Imperatives for Exploration and Production of Oil & Gas” at ONGC, Ahmedabad (3-7 Sep,2012)
7. Attended one day workshop on “Patent Awareness” at North Maharashtra University, Jalgaon(4th Aug.2008)
8. Attended one day regional seminar and poster presentation on “Recent trends in Environmental Sciences (An interdisciplinary application)” at SEES, NMU, Jalgaon.
9. Attended one day seminar on “Role of Nanotechnology in Polymer and Chemical Industries” at UDCT, NMU, Jalgaon
10. Attended one day conference on “Chemcad Process Simulation Conference” at Hotel Orchid, Mumbai (22nd Feb.2010).
11. Participated in the AICTE sponsored one day seminar on “Bio-Energy Conversion” at MIT’s, MAE, Pune.(24th March 2006).

12. Attended one day workshop on “Advanced Process Control” jointly organized by the Department of Chemical Technology, Sinhgad College of Engineering, Pune and Honeywell Automation India Limited, Pune.(22nd April 2006).
13. Participated in the one day seminar on “Recent Developments in Chemical Engineering” organized by Indian Institute of Chemical Engineers (IChE), Pune (24th March 2005)
14. Attended one day workshop on “Research Methodology for Science and Engineering” organized by Department of Applied Mathematics, MAE, Pune.(23rd Dec.2005)
15. Attended one day seminar on “ World Year of Physics-2005” organized by Department of Engineering Sciences, MAE, Pune.

Other activities and extension work

- 1) Conducted remedial classes for Chemical Engineering Thermodynamics (06/10/2015)
- 2) Worked as an **observer for UGC-NET-2015** exam.
- 3) Worked as an **observer for JEE 2015** (paper-I) at Jalgaon (04/04/2015)
- 4) Worked as a member for Academic Calendar of UICT 2015-16.
- 5) Worked as a Deputy-coordinator for NBA work at UICT.
- 6) Worked as a **convener for Open House 2015** at UICT, NMU, Jalgaon (2nd March-4th March 2015)
- 7) Organised **Blood Donation Camp** at UICT, NMU, Jalgaon (02/03/15)
- 8) Organised National Level Conference at NMU, Jalgaon.(4th Feb 2012)
- 9) Organised Blood Donation Camp at NMU, Jalgaon (19th Jan 2011)
- 10) Organised **Industrial Visit** for final year chemical engineering students (Dec.2010)
- 11) Worked as a Class Incharge for third year chemical engineering students in the academic year 2008-09.
- 12) Worked as a member for time table committee in academic year 2009-10 and 2010-11.
- 13) Worked as a member of Discipline Committee (Open House) during the academic year 2010-11.
- 14) Worked as a co-ordinator for a G.K.Quiz organized by UDCT for the celebration of National Science Day (2009)
- 15) Worked as a exam committee member for UICT for the academic year (2014-15 and 2015-16).
- 16) Worked as a CHEMCAD Course Incharge.