

Dr. BHARAT C. HONMANE

Contact: +91 9867236810

Email: bchonmane@hs.vjti.ac.in

bharathonmane@gmail.com

Address: Flat No. 603, Shaswat Park, Tembhipada,

Bhandup (West), Mumbai- 400078,

Maharashtra, INDIA



Ph. D. Chemical Engineering

- Seven years of **Membrane separation** expertise contributing to Reverse Osmosis and Forward Osmosis studies for industrial and societal applications.
 - Experience of running laboratory as well as **pilot scale studies** forward osmosis plants. Writing scientific reports, project proposals and maintaining research lab operations and equipments.
 - Background includes participation in groundbreaking research in the area of **industrial water and wastewater management** by forward osmosis.
-

Education

- Dynamic and Proactive Chemical Engineer with **Ph.D. Chemical Engineering** degree from the renowned Institute of Chemical Technology (ICT formerly UDCT or UICT) Mumbai in 2023.
Ph.D. Topic: “Industrially important applications of Forward Osmosis”
Ph.D. Guide: Prof. Pushpito K. Ghosh, **Ph.D. Co-Guide:** Dr. Vishwanath H. Dalvi.
 - **M. Tech Chemical Technology** from ICT Mumbai the with First Class with Distinction (8.0CGPA) in 2015.
 - Completed **PG Diploma in Process Engineering** from Suvidya Institute of Technology Santacruz, Mumbai with First Class in 2012.
 - Completed **B. Tech Chemical Engineering** from Dr. Babasaheb Ambedkar Technological University, lonere with First Class (6.96 CGPA) in 2010.
 - Cleared **GATE 2015**, Gate Score 514, All India Rank 792.
 - Confident, self-motivated, good communication skill and an efficient problem solver, with patience to consider all options before taking a decision.
-

Granted Patents

- “SYSTEM FOR CONTINUOUS EXTRACTION OF PURE WATER FROM FEEDS WITH RESATURATION AND REUSE OF DRAW”, **Indian Patent**
Patent Number: 366123, Date of Grant: **5th May 2021**
- “SPONTANEOUS DEWATERING OF INCOMING FEED WITH OUTGOING SPENT FEED FOR MUTUAL GAINS IN SOLAR SALT AND CANE SUGAR PRODUCTION PROCESSES”, **Indian Patent**
Patent Number: 348905, Date of Grant: **8th October 2020**

International Publications

1. Honmane B, Deshpande T, Dhand A, Bhansali R, Ghosh P K (2018). *Channelizing the osmotic energy of proximate sea bitttern for concentration of seawater by forward osmosis under realistic conditions to conserve land requirement for solar sea salt production. Journal of Membrane Science*, 567: 329–338.
2. Honmane B, Bhansali R, Deshpande T, Dhand A, Mogha S, Mukherjee J, Ghosh D, Sarode G, Srivastava S, Dive A, Deshmukh D, Ghosh P, *Harnessing the osmotic energy of cane molasses by forward osmosis: process studies and implications for a sugar mill, Int. J. Environ. Stud.* 78 (2021) 247–270.

Manuscript Submitted/ Under Preparation

- Forward Osmosis: An approach to reclaim dairy waste stream whey.
(Submitted to *Environmental Science and Pollution Research – Springer*)
- Continuous extraction of pure water from seawater with resaturation of Sodium chloride as draw by Forward Osmosis. (*Under preparation*)
- Management of RO reject water of 5 m³ per hour community RO plant by Fertilizer driven forward osmosis process. (*Under preparation*)

International Conferences & Workshops

1. Honmane, B., and Ghosh, P.K., System for Continuous Extraction of Pure Water from Seawater with Resaturation and Reuse of Draw by Forward Osmosis. **(Received best oral presentation award)**
2nd International Conference on Water Technologies (ICWT - 2022), 1-2, December 2022, **IIT Bombay, India.**
 2. Honmane, B., and Ghosh, P.K., Forward osmosis system for continuous extraction of pure water from feeds with resaturation and reuse of draw.
5th International Conference on Desalination using Membrane Technology, 14-17, November 2021, Shanghai, China.
 3. Bhansali, R., Honmane, B., and Ghosh, P.K., Investigation of Spontaneous Dewatering of Sugarcane Juice through Forward Osmosis at Module Level Employing Virgin Sea Bittern as Draw.
10th International Conference on Sustainable Energy and Environmental Protection – SEEP 2017 was organized on June, 27th – 30th 2017 in Bled, Slovenia.
 4. Indo-German Bilateral Workshop on Membranes for Water and Energy.
18th - 20th, February, 2019 Organized by CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar, Gujarat, India Sponsored by Indo-German Science & Technology Centre.
 5. 11th International workshop on crystallization, filtration, granulation & drying.
March- 9,10 & 11th 2017, organized by WFCFD and ICT Mumbai.
-

Research Projects

Sr. No.	Title	Sponsoring Agency	Ongoing/ Completed
1	Use of molasses as draw solution in Forward Osmosis applications of specific interest to Godavari Bio-refineries and exploration of associated opportunities for innovation [Rs 27.36 lakh (36,753.59 USD)] (year- 2018 to 2022)	Godavari Biorefineries Ltd. (GBL), India	Completed
2	Mitigation of water problems in Ausa town, Latur: Wastewater management, Gaothan lake rejuvenation, Potable water production through desalination of lake water and Training of residents in matters of sanitation and water conservation [Rs 200 lakh (2,68,717.80 USD)] (Year- 2017 to 2021)	Department of Science and technology (DST), Government of India	Completed
3	Spontaneous dewatering of sugarcane juice through Forward Osmosis at module level employing sea bittern as draw solution. [Rs 5 lakh (6,716.38 USD)] (Year- 2016 to 2017)	TEQIP-II, Innovation Networking (INN) Project, India	Completed

Professional experience

Sr. No.	Name of Organization	Designation	Period	Experience
1	VJTI Mumbai	Adhoc Faculty	August 2022 to present	-
2	Institute of Chemical Technology (ICT), Mumbai	Project Assistant	March, 2016 – February, 2017	12 Months
3	Mukest Patel's School of Technology Management and Engineering (MPSTME), Mumbai	Visiting Lecturer	Aug, 2014- Dec, 2014 and Aug, 2015 – Dec, 2015	10 Months
4	Veer mata Jijabai Technological Institute (VJTI), Mumbai	Visiting Lecturer	Aug, 2013- Dec, 2013 and Aug, 2014 – Dec, 2014	10 Months
5	Institute of Chemical Technology (ICT), Mumbai	Project Engineer	Jan, 2013 – Aug, 2013	8 Months
6	Dr. Babasaheb Ambedkar	Project Fellow	Aug, 2011 – Aug, 2012	12 Months

	Technological University (Dr. BATU), Lonere			
7	KORES India Ltd, Roha	Production Trainee	Aug, 2010 – March, 2011	8 Months

PERSONAL DETAILS

Date of Birth: October 11, 1988

Marital Status: Married

Languages Known: English, Marathi and Hindi.

Declaration: I hereby declare that all information furnished above is true according to my knowledge and belief.



Place: Mumbai, India

Date: January 1, 2024

Mr. Bharat C. Honmane

References:

<p>Prof. Pushpito K. Ghosh (Former Director, CSIR-CSMCRI, Bhavnagar) K. V. Mariwala - J. B. Joshi Distinguished Professor Department of Chemical Engineering Institute of Chemical Technology (ICT), Matunga (E), Mumbai – 400019 Email id: pk.ghosh@ictmumbai.edu.in pushpitokghosh@gmail.com Mobile No: +91 9820363115</p>	<p>Dr. Vishwanath H. Dalvi R.A. Mashelkar Assistant Professor Department of Chemical Engineering Institute of Chemical Technology (ICT), Matunga (E), Mumbai – 400019 Email id: vh.dalvi@ictmumbai.edu.in Mobile No: +91 9987250603</p>
<p>Dr. Dipak V. Pinjari DST-INSPIRE Assistance Professor Department of Chemical Engineering Institute of Chemical Technology (ICT), Matunga (E), Mumbai – 400019 Email id: dpinjari@gmail.com Mobile No: +91 9967719496</p>	<p>Prof. Lakshmi Kantam Mannepalli (Former Director, CSIR- IICT, Hyderabad) Dr. B. P. Godrej Distinguished Professor Department of Chemical Engineering Institute of Chemical Technology (ICT), Matunga (E), Mumbai – 400019 Email id: lk.mannepalli@ictmumbai.edu.in Mobile No: +91 9769101554</p>