

CURRICULUM VITAE

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Professional Experience (Total experience 27 years)

- Associate Professor, Department of Chemical Engineering , BITS Pilani, K K Bilra Goa Campus, Goa, January 2013- till date
- Assistant Professor, Department of Chemical Engineering , BITS-Pilani, Rajasthan and BITS Pilani K K Bilra Goa Campus, Goa, February 2005 – December 2012 (8 years)
- Lecturer, Department of Chemical Engineering , BITS Pilani, Rajasthan, January 1997 - January 2005 (5 years)
- Lecturer, Department of Chemical Engineering, Pravara Rural Engg College, Pune University, May 94- December 96 (2.5 years)
- Trainee Engineer and Production In charge, Atlas Fine Chemicals Private Limited, Sinnar, Nasik, January 93- April 1994 (1 Year and 3 months)

Recognition/Awards

- Mr. Chandresh Dwivedi, my PhD student is awarded “SERB-FICCI Young Achiever”. The award is conferred on Mr. Chandresh in recognition of his work in the research project “Design and Development of cost-effective carbon-silica dual phase fillers” in collaboration with M/s. Apollo Tyres Ltd, Chennai. The work was praised by the eminent scientists and technical committee members of SERB-DST during the annual review held at IIT-Delhi on 14th - 15th Feb 2023.
- Goa State Pollution Control Board appointed Prof S.D. Manjare as a Member of expert appraisal committee to assess hazardous waste sites in Goa from June 2020 to May 2022.
- Goa State Pollution Control Board appointed Prof S.D. Manjare as a member of Departmental Promotion Committee and Departmental Selection Committee in respect

of Group A and B posts in the Goa State Pollution Control Board from April 2019 to till date

- Goa State Pollution Control Board appointed Prof S.D. Manjare as a member of 'Technical Advisory Committee of Goa State Pollution Control Board' from January 25th 2018 to March 2022.
- Appointed as a Member of Board of Studies of department of Chemical Engg, MIT Academy of Engineering (MIT AoE), Pune, from Oct 17, 2016 to May 2020
- Goa State Pollution Control Board appointed Prof S.D. Manjare as a Member of expert appraisal committee to assess the environmental impacts of the proposed project on marina facilities at north of Zuari river, near village Nauxin, Goa 22nd January 2016.

This marina facility will be tourist attraction because it will have the parking and maintenance facility for the small boats & Yacht along with associated facilities like restrooms, food courts, rent houses etc for vessel/Yacht crew.

- Chaired the SDEWES2016 conference session: RS50: Sustainable islands and Cities" that was held on Tuesday, September 6th, 2016 from 16:00 during *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Lisbon, Portugal, Sep 4-9, 2016.
- Appointed as the distinguished scientist, for to be a member the Scientific Advisory Board of the SDEWES Conference on Sustainable Development of Energy, Water and Environment Systems (<http://www.dubrovnik2017.sdewes.org>), which is now the 12th in this series of conferences, October 2016.
- Chaired the 10th ISDSI (Indian Subcontinent Decision Sciences institute) *International Conference* Technical Session 3E: Strategic Business Management, held at Nasik, December 28-30, 2016.
- Appointed as the distinguished scientist, to be a member the Scientific Advisory Board of the 1st Latin American SDEWES Conference on Sustainable Development of Energy, Water and Environment Systems (<http://www.rio2018.sdewes.org>), to be held during January 28-31, 2018, at Rio de Janeiro, Brazil
- Chaired the SDEWES2017 conference session: **Sustainability comparisons and measurements 2** " that was held on Saturday, October 7th, 2017 from 9.00 am during *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Dubrovnik, Croatia During 4th – 8th October 2017.

- Appointed as the distinguished scientist, to be a member the Scientific Advisory Board of the 3rd South East European Conference on Sustainable Development of Energy, Water and Environment Systems (<http://www.novisad2018.sdewes.org/sab.php>) , to be held during June 30-July 3 , 2018, at Novi Sad, Serbia.

I - ACADEMICS

Subjects/courses taught: Undergraduate Level

Environmental Pollution Control	Mass Transfer Operations
Process Design Principles I	Process Design Decisions
Kinetics and Reactor Design	Process Design Principles II
Unit Operations	Fluid flow operations
Process Control	Biochemical Engineering
Selected Chemical Engineering Operations	Process Equipment Design
Process control and Instrumentation	Measurement Techniques II

Post Graduate Level

Environmental Systems Modeling	Advanced Mass Transfer
Computational Transport Phenomenon	Advanced Separation Processes
Air Pollution Control Technologies	Environmental Management Systems

Courses /Programe Developed /updated

- Developed a course on Environmental Systems Modeling for M E environmental Engineering, at BITS Pilani K K Birla Goa campus 2015
- Developed a course on Air Pollution Control Technologies for M E environmental Engineering, at BITS Pilani K K Birla Goa campus 2015
- Curriculum Development for M E environmental Engineering programme, for employees of Goa State Pollution Control Board, at BITS Pilani K K Birla Goa campus 2014.

- Developed (along with senior colleague) a course on Environmental Management Systems for M.E. Chemical Engg. students at BITS Pilani, Rajasthan
- Developed (along with senior colleagues) a course on Separation Technology for M.E. Chemical Engg. students at BITS Pilani, Rajasthan
- Developed (along with senior colleague) Environmental Engineering Laboratory in chemical engineering department at BITS Pilani, Rajasthan
- Introduced the process plant simulation software (Aspen Plus/Chem-CAD) for the course CHE F314-Process Design Principles I, at BITS Pilani, K K Birla Goa Campus Goa

Courses delivered to Industry and Faculty of other Institutes

- Coordinator for two day workshop on Process Modeling and Simulation for Industries and academicians during 21st-22nd December 2017 at KK Birla Goa Campus. Forty participants from various industries and universities participated in the workshop.
- Coordinator for two day workshop on Environmental Management Systems for Industries in Goa on **20th October and 21st October 2016** at KK Birla Goa Campus. This workshop was organized in collaboration with Goa State Pollution Control Board Goa. Fifty participants from various industries across Goa participated in the workshop.
- Conducted workshop on “Environmental Management and Audit” for faculty across various Institutions at Dept of Chemical Engg at Padmashri Dr. Vitthalrao Vikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during 25th Feb 2013 to 1st March 2013.
- Guided a project to group of employees (8 no) during Academic Refresher Course Programme – II for the employees of **Hindustan Zinc Ltd.** Udaipur BITS, Pilani, Rajasthan October 2004- November 2004.
- Intensive Course (along with other faculty colleagues) on Novel Separation Techniques and their application to Indian Chemical Industries for industry delegates at BITS, Pilani, Rajasthan, March 21-23,2001.

Contributions To Continuing Education Programme (Short-Term Courses Etc.)

- Track Chair for the theme on Environmental Management Systems in 11th ISDSI (Indian Subcontinent Decision Sciences institute) *International Conference* to be held at IIM Trichy, during December 27-30, 2017.

- Member of Scientific Advisory Board for The 12th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference, to be held in Dubrovnik, Croatia, during October 4-8 2017
- Member of Programme committee for 10th ISDSI International Conference held at Nasik during December 28-30, 2016.
- Convener of the Seminar **Engineering Solutions to Combat Climate Change** organized on Engineers Day, 15th September, 2009 at BITS, Pilani, Goa Campus
- Convener of the Seminar **The Planet Earth** organized on Engineers Day, 15th September, 2008 at BITS, Pilani, Goa Campus.
- Convener of the Seminar **Technological Innovations for Sustainable Development** organized on Engineers Day, 22nd September, 2006 at BITS, Pilani, Goa Campus.
- Co-organised National Conference on Energy Management in Changing Business Scenario(EMCBS-2005), 8-9 October 2005 at BITS, Pilani
- Co-organised Seminar Cum Intensive Course on Novel Separation Techniques and their application to Indian Chemical Industries, (March 21-23,2001) at BITS, Pilani
- Co-organised National seminar cum short term course on Environmental Pollution and Its Control (NSIC '99), (March 11-13,1999) at BITS, Pilani

II-RESEARCH

PhD Title

Ph.D. Thesis Title: "Studies on Adsorption of Ethyl Acetate Vapor in Molecular Sieves"

Advisor: Prof. Alope Kumar Ghoshal (Presently Professor in IIT Guwahati)

Research Interest

- Environmental management Systems (Life Cycle Assessment, pollution control strategies for air and water pollutants)
- Separation Processes, (Adsorption)
- Process Systems Engineering
- Recovery of Resources from waste materials
- Development of Fillers for rubber compounds

Sponsored Research and Consultancy Projects (As Principle Investigator)

1. "Study on effective recovery & modification of carbon black from waste/scrap tyres, and its application in fabrication of membranes for water desalination/purifications" funded by CSIR –HRDG, New Delhi, **Total cost Rs 25,90,000/-** April 2023 to March 2026. (In collaboration with Dr. Hiren D. Raval (Co-PI), Principal Scientist, Membrane Science and Separation Technology Division, CSIR -CSMCRI, Bhavnagar).
2. "Design, development and evaluation of hybrid system for treatment of wastewater generated from handloom unit Generated by Handloom Artisans" funded by Tata Trust, Mumbai, **Total Cost Rs 34, 00,000** March 2023- May 2024.
3. Investigation on operating performance of Rotary Kiln in coke calcination process: Modeling and Simulation studies funded by Goa Carbon Limited, Goa, **Total cost Rs 28, 20,200/-** April 2023 – March 2025 (In collaboration with Dr Amol Deshpande (PI), Department of Chemical Engineering).
4. Environmental Impact Assessment of 2, 6, Difluoroaniline and 4,4-Dimethoxy-2-butanone (DMB) funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 8,85,000/-** October 2022- May 2023

5. “Environmental Impact Assessment of DIMPA (2-(4-Chloro-2,6-dimethylphenyl)acetic acid), Revysol (Mefentrifluconazole), BAS-560I (Fenmezoditiaz,(3R)-3-(2-chlorothiazol-5-yl)-8-methyl-7-oxo-6-phenyl-2,3,7,8-tetrahydro[1,3]thiazolo[3,2-a]pyrimidin-4-ium-5-olate), Amino Ethyl Phenol, Mandipropamid, and Ortho substituted Phenyl Amide” funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 25,00,000/-** July 2022 – December 2023.
6. Life Cycle Assessment (LCA) Study of Thiamethoxam, Pretilachlor, CPTAP, TCAN and Metobromuron funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 2,06,000/-** November 2022 – March 2023
7. Modeling and Simulation of production processes of Dichlorophenyl (DCP) Ketone and Triflumezopyrim (RAB) 55 funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 8,26,000/-** November 2021 – April 2022
8. “Modeling and simulation of production processes of Picoxystrobin, MOAT (N Methoxy 1 -(246 Trichloropropenyl)Propane -2 amine), and DCF-TFAP (Dichloro Fluro Trifluro Acetophenone)” funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 12,62,000/-** October 2021 – June 2022.
9. “Synthesis of Carbon-Silica Dual Phase Filler using modified approach”, Funded by Fluor & Compounds, India, Koura Global, Vadodara, Gujrat, **Total Cost Rs 1,25, 000/-** October 2021 – May 2022.
10. “Novel and Efficient Mechanisms for the recovery and recycle of resources from polymeric materials” funded by UniBlack Carbon of SSK Ispat Private Limited, Mumbai, **Total cost Rs. 26,56,770/-** May 2021-May 2024.
11. “Performance assessment of the manufacturing process of pig iron, Vedanta Limited, Goa” funded by Vedanta Limited, Goa, **Total cost Rs 7, 02,000/-** April 2021-December 2021.
12. “Study on recovery of high volatile components during the feni production” funded by Department of Chemical Engineering, BITS Pilani K K Birla Goa Campus Goa, **Total cost Rs 2,00,000/-** April 2021- December 2022
13. “Air Dispersion Study (Modeling) of Coal Particles Released during the manufacture of calcined petroleum coke (CPC) from raw petroleum coke (RPC) at Salcet Plant of Goa Carbon” funded by Goa Carbon Limited, Goa, **Total cost Rs 11,00,000/-** March 2021-December 2022

14. Life Cycle Assessment of Dorf Ketal Chemicals Pvt Ltd, Mumbai, **Total Cost Rs 1,00,000/-** May 2020- August 2020.
15. Environmental impact assessment of production process of soft gelatin capsules” funded by Proctor and Gamble, Mumbai, **Total Cost Rs 3, 89,400/-**, August 2020 – March 2021.
16. “Environmental Impact Assessment of 5-chloro-2-cyclopropyl-6-hydroxypyrimidine-4-carboxylic acid (MAT 26)” funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs 4,24,800/-**, September 2020 –March 2021.
17. Life Cycle Assessment Study for M/s Shree Pushkar Chemicals & Fertilizers Limited, at MIDC, Lote, Ratnagiri, Maharashtra, **Total Cost Rs 1,29,800/-**, February 2020- September 2020.
18. “Study on performance comparison between MTB process and TMX-OZA process” funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. Rs 4, 01,200/-**, March 2020 – October 2020.
19. “ Life Cycle Assessment study for Laxmi Organic Industries Ltd” funded by Laxmi Organic Industries Ltd, Mahad, Mumbai, **Total cost Rs 6,75,000/-** December 2019- June 2020.
20. Performance assessment studies on the production process of Tri-chloroanilene (T-CAN)” funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs 4, 01,200/-**, December 2019 – July 2020.
21. “Study on treatment of emerging contaminants using ozonation”, funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs 1, 50,000/-**, August 2019 – May 2020.
22. “Prime Minister's Fellowship Scheme for Doctoral Research awarded to a PhD student Mr Chandresh Dwivedi” funded by SERB in coordination with Federation of Indian Chambers of Commerce & Industry (FICCI) and industry partner Apollo Tyres Ltd., **Total cost Rs 24,00,000/-**, July 2019 – July 2022.
23. “Performance assessment studies on the production process of BFBTF” **funded by** Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs 3, 54,000/-**, March 2019 – February 2020.

24. "Water Audit for Ammonia, Urea, & Phosphate Fertilizers Units and Utility & Storage sections," funded by Zuari Agro Chemicals Limited, Goa, **Total cost Rs 8,51,960/-**. May 2019 – April 2020.
25. Design and Development of cost effective method for synthesis of "carbon-silica based hybrid Fillers" for application in Rubber Products, "funded by Apollo Tyres, Chennai, **Total cost Rs 35,00,000/-**, April 2019 – July 2022.
26. "Performance assessment studies on the production process of MNQ" funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 3, 54,000/-**, May 2019 – October 2019.
27. "Environmental Audit for Ammonia, Urea, & Phosphate Fertilizers Units and Utility & Storage sections, " funded by Zuari Agro Chemicals Limited, Goa, **Total cost Rs 8,51,960/-**. January 2019 – March 2020.
28. "Study on Dispersion of Particles Generated from Handling of Cargo at Mooring Dolphins for Mormugao Port Trust Goa" **funded by** Mormugao Port Trust (MPT), Vasco, Goa, **Total cost Rs 16,75,600/-**, September 2018 – December 2019.
29. "Life Cycle Assessment study for Maharashtra Aldehydes and Chemicals Ltd" funded by Maharashtra Aldehydes and Chemicals Ltd, Mahad, Mumbai, **Total cost Rs 6, 90,000/-**, November 2018-April 2019.
30. "Performance assessment studies on the production process of Thiamethoxam" **funded by** Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 3, 00,900/-**, July 2018 – December 2018.
31. "Optimization studies on fermentation of cashew apple juice for feni production in Goa" Funded by M/s Navika Nursery **Total cost Rs. 2, 50,000/-** February 2018-December 2020.
32. "Performance aassessment studies on the production process of MTB (a herbicide)" funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 2, 44,850/-** September 2017 – March 2018.
33. "Performance aassessment studies on the production process of CPTAP" funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 2, 56,650/-** July 2017-February 2018.

34. "Process improvements in Urrakh and Feni production in Goa" Funded by Department of Science and Technology, Govt of Goa, **Total cost Rs. 7,50,000/-** November 2018 – December 2021.
35. "Environmental Impact assessment studies on increased production of Pretilachlor", funded by Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad, **Total Cost Rs. 1,72,500/-** November 2016 - May 2017.
36. Feasibility studies on Common Hazardous Waste Treatment, Storage & Disposal Facility at Pissurlem Industrial Area, Goa funded by SMS ENVOCARE LTD, **Total cost Rs 50,000/-** March 2017-April 2017.
37. "A Parametric Study of the Proton Exchange Membrane (PEM) Fuel Cell Performance" funded by Ministry of New and Renewable Energy (MNRE) **Total cost Rs. 10, 47,000/-** August 2007 – March 2011.
38. "Application of Life Cycle Assessment (LCA) to DAP Production" funded by Ministry of Chemicals and Fertilizers, Govt. of India **Total cost Rs. 27,00,000**, January 2008 – March 2010.
39. "Design, Modeling and Simulation of a High Efficiency Solar Distillation Unit", funded by BITS Pilani, Rajasthan, **Total cost Rs. 1,25,000/-**, January 2004 - May 2005.
40. "Adsorption Equilibrium Study For Different Adsorbate – Adsorbent System" funded by UGC, Delhi (minor project) and partly by BITS Pilani, Rajasthan, **Total grant Rs. 1, 00,000/-** January 2001 - December 2002.

Sponsored Research and Consultancy Projects (As Co-Principle Investigator)

41. Investigating the effect of co-digestion and advanced sludge pre-treatment methods on the anaerobic conversion potential of the organic wastes" funded by DBT, New Delhi, **Total cost Rs 27,48,800/-**, July 2013 - June 2016, This project is in collaboration with NIT Warangal.
42. "Development of Environmental Pollution control Laboratory" funded by KK Birla Academy, New Delhi, **Total grant Rs. 8, 00,000/-**, August 2000 - May 2002.

Research Guidance

PhD Students

Sr No	Name of the Student	PhD area	Year of registration
1	Milind Joshi	Recovery of resources from biomass	2020
2	Kavitha Patil	Environmental Engineering	2020
3	Vinoth Kannan	Separation process	2019
4	Salve Nupur Vijay	Environmental Engineering (Co-supervisor)	2019
5	Chandresh Dwivedi	Development of fillers for rubber compounds	2018
6	Vivek Kore	Environmental Engineering	2016

Higher Degree (Master level) Students Guided

Sr No	Name of the Student	Topic	Year of work
1	Yogesh Jadhav	Development of Environmentally process for production of aluminum tri hydroxide	2022-23
2	Raksha	Metal oxide based polymer Nanocomposites material- a novel reinforcing material for various industrial applications	2021-22
3	Anmol Shahi	Study on sustainable approach for recovery and management of resources from waste tyres	2020-21
4	Sree Kavya	Studies on adsorption of Thiamethoxam	2019-20
5	Sanjeev Joglekar	Studies on carrying capacity of Dudhsagar water fall	2018-19
6	Shree Sharan	Photocatalytic degradation of 2,4-dichlorophenol in water using commercial TiO ₂ , Fe/TiO ₂ and Mn/TiO ₂	2018-19
7	Ambika Parab	Studies on removal of atrazine herbicide from water using chemical degradation	2017-18
8	Subrejha J	Studies On Adsorption of Cr(Vi) Using Bio-Char Prepared From Coconut Leaves	2017
9	Nandan V Prabhudessai	Modeling studies on discharge of treated wastewater from sewage treatment plant into Inez Greek, Panjim City.	2016

10	Rohan Ramesh Nagvekar	Source Apportionment Study of Mormugao Port Trust area and its Immediate Vicinity	2016
11	Thomas Bento	Water quality assessment in Goa using Geographical Information System(GIS)	2016
12	Shashank Desai	Design of fume hood collection system for induction furnaces	2016
13	Digvijay Dessai	Determination and prediction of state of Environment in Goa.	2016
14	Amit B. Shanbag	LCA studies of Methyl Bromide production and Tyre Industry	2015-16
15	Hariom Upadhyay	Removal of Diclofenac Sodium from Pharmaceutical wastewater using Adsorption process	2014-15
16	Mandha Prasad	Extraction of Nimbin from Neem seeds by using Supercritical CO ₂ : Theoretical Investigation	2012
17	Anees Y Khan	Studies on Life Cycle Assessment (LCA) Methodology	2006
18	Karthick S	Modeling, Simulation and Design of Multi Stage Solar Distillation Unit	2004-2005
19	Shraddesh Malviya	Design and development PEM Fuel Cell	2004-2005
20	S. H. Muhammad Haseen Sadique	Studies on adsorption of Arsenic (III) removal from water	2004
21	Khadakkar Kanchanmala	Experimental studies on water quality parameters	2004
22	Kalyan Patil	Studies on removal of ethyl acetate using activated carbon	2004
23	Ms Sonia	Modeling, and Simulation of Anaerobic Digestion System	2003-2004

Research Scholars

Guided three senior research fellows in the research projects as mentioned below.

Sr No	Name of the Student	Research Project Title	Year of work
1	Apeksha Jadhav	A Parametric Study of the Proton Exchange Membrane (PEM) Fuel Cell Performance	2008-2011
2	Atul Salve	Application of Life Cycle Assessment (LCA) to DAP Production	2008-10
3	Rajendra Mohite	Application of Life Cycle Assessment (LCA) to DAP Production	2010-2011

External Reviewer / Examiner for PhD thesis

- Appointed as an external examiner for PhD thesis of Laxminarayan Institute of Technology (LIT) Nagpur University, June 2021. Ph.D. Thesis titled, "Intensification of degradation of wastewater by hydrodynamic cavitation reactor with various advance oxidation processes" of Mr Prashant Bhimrao Dhanke
- Appointed as an external examiner for PhD thesis of Symbiosis University, September 2020, Ph.D. Thesis titled, "Investigation of Anaerobic Digestion of Food Waste using a Combination of Data Envelopment Analysis (DEA) and Environmental Life Cycle Assessment (LCA) with Special Reference to 'Nisargruna' Technology" of Gahana Gopal C.
- Appointed as an external examiner for PhD thesis of Nagpur University, April 2018. Ph.D. Thesis titled, "Synthesis of Nanofluids for Heat and Mass Transfer Application" of Mr Gajanan P. Lakhawat.
- Appointed as an external examiner for PhD thesis of Symbiosis University, January 2018, Ph.D. Thesis titled, "Development of eco-friendly sorption process for removal and recovery of hexavalent chromium from industrial effluents" of Nilisha Prashant Itankar.
- Appointed as an external examiner for PhD thesis of KLE University, Belgavi , August 2017, PhD Thesis titled, "Fermentation of Sugar cane Juice" of Pallavi S Patil.
- Appointed as an external examiner for PhD thesis of Amravati University October 2016. Ph.D. Thesis titled, "Studies on synthesis and characterization of furfural from different biomaterials and its products development" of Mr Sanjay Bhagat.
- Appointed as an external examiner for PhD thesis of Pune University August 2014 PhD thesis titled, "Studies on Effect of Cavitation on Different Physical and Chemical Processes" of Sachin Shirsath.

Patents

Patents Granted

1. Chandresh Dwivedi, **Sampatrao Dagu Manjare**, Tapas Ranjan Mohanty, S Ramakrishnan, Jiby Isaac and PK Mohamed, “Method for preparing a silica embedded carbon black composite aggregate and composite aggregate prepared thereby” Application number 17/705892, United States Patent Application 20220306839, **International Classes: C08K9/06; C08K3/04; C08K3/36; C08K3/013, publication date, 09/29/2022.**

Patent Filed

Chandresh Dwivedi, **Sampatrao Dagu Manjare**, Tapas Ranjan Mohanty, S Ramakrishnan, “A method to produce highly reactive recovered carbon black and rubber composites thereof” filed provisionally, Jan 2023.

Publications

International Journals

1. Raksha, Chandresh Dwivedi, **Sampatrao Manjare**, “Transition Metal based carbon composite for Adsorptive Desulfurization of tire derived fuel oils” Materials Today: Proceedings, Volume 72 (1), 2023, Pages 477-485 (IS 1.46, H Index 56, SJR 0.355). <https://doi.org/10.1016/j.matpr.2022.09.135>.
2. **Manjare S D** and *Kavita Patil*, “Application of Gaussian dispersion model for the assessment of air pollutants from a steel plant in the city of Bokaro, Jharkhand, India” Accepted for publication in **Int. J. of Environment and Waste Management**, Vol. 30, No. 2, pp. 125-139 2022 (IF 0.538, H Index 20, SJR 0.255). DOI:[10.1504/IJEW.2022.10035381](https://doi.org/10.1504/IJEW.2022.10035381)
3. **Sampatrao D Manjare** and Yogesh Donolikar “Investigation on Atmospheric Dispersion of Limestone Particulates at the Sea Port” Materials Today: Proceedings, Volume 67(8), 2022, Pages 1260-1267 (IS 1.46, H Index 56, SJR 0.355). <https://doi.org/10.1016/j.matpr.2022.08.523>.
4. Anurag Pandey, **Sampatrao D. Manjare***, Atharva Nitin Joshi, Ajit Pratap Singh,

- “Quantification of Environmental Impact of Water Pollutants Using Fuzzy Comprehensive Model” *International Journal of Environmental Science and Technology* **20**, pp. 2009–2020, 2022 (IF. 3.519, H Index 84, SJR 0.555).
5. **Sampatrao D Manjare** and Yogesh Donolikar "Effect of atmospheric and operational variables on dispersion of bauxite particulates at Mormugaon Port, Goa, India" *Materials Today: Proceedings*, Volume 67(8), 2022, Pages 1190-1196 (IS 1.46, H Index 56, SJR 0.36). <https://doi.org/10.1016/j.matpr.2022.08.142>
 6. Anmol Shahi, Chandresh Dwivedi, **Sampatrao D Manjare**,” Experimental and theoretical investigation on pyrolysis of various sections of the waste tire and its components”, *Chemical Engineering Research and Design* 179 (2022) 66–76 (IF. 4.119, H Index 108, SJR 0.79).
 7. **Sampatrao Manjare and** Amit Shanbag “Life Cycle Assessment of Methyl Bromide Production and Utilization: Cradle to Grave Analysis" published in *Journal of Der Pharmacia Lettre*, 2022, 14(3):01-12 (IF. 0.134, H Index 28, SJR 0.134).
 8. **Sampatrao D. Manjare** and Arijit Chakraborty, “Modelling of Fugitive Emissions Released Due to Handling of Iron Ore Cargo at the Port” *International Journal of Environmental Science and Technology*, Jan 2022 (IF. 3.519, H Index 84, SJR 0.555).
 9. Vinoth Kannan, Vivek Rangarajan, **Sampatrao D. Manjare** and Pramod V. Pathak (2021), “Microbial Production of Value-added Products from Cashew Apples- an Economical Boost to Cashew Farmers” **Journal of Pure and Applied Micorbiology** 15(4):1816-1832 (IF. 1.053, H Index 20 SJR 0.149)
 10. Chandresh Dwivedi, Tapas Ranjan Mohanty Dwivedi, **Sampatrao D Manjare**, Sushil K Rajan, S Ramakrishnan Dwivedi, SKP Amarnath, Daniele Lorenzetti and PK Mohamed, “Application of non-ionic surfactant in modifying the surface of carbon black and its role in the formation of colloidal composite materials”, **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, 624 (2021), 126825 doi:<https://doi.org/10.1016/j.colsurfa.2021.126825> (IF. 5.518, H Index 179, SJR 0.762).
 11. Anmol Shahi, Chandresh Dwivedi, **S D Manjare**, Vaibhav Kulshrestha “Sulphonated (PVDF-co-HFP)-graphene oxide composite polymer electrolyte membrane for HI decomposition by electrolysis in thermochemical iodine-sulphur cycle for Hydrogen production” **International Journal of Hydrogen Energy**, **46, 13**(2021) 8852-8863(IF. 7.139, H Index 231, SJR 1.212).

12. **Sampatrao Manjare**, Nikita Bandekar, Aravind Satish, (2021), "Air dispersion modelling of coal particles released during handling of cargo at port" **J of Environmental Modeling and Assessment**, **26:371-383**, (IF 2.33, H Index 52, SJR 0.467).
<https://doi.org/10.1007/s10666-020-09745-3>.
13. Chandresh Dwivedi, **Sampatrao Manjare** and Sushil K Rajan, "Recycling of waste tire by pyrolysis to recover carbon black: alternative& environment friendly reinforcing filler for natural rubber compounds" **Journal of Composite Part B: Engineering**, 200 (2020) 108346 (IF 11.322, H Index 163, SJR 2.196).
14. Amit Shanbag and **Manjare S D**, "Life Cycle Assessment of Tyre Manufacturing", Journal of Sustainable Development of Energy, Water and Environment Systems, Volume 8, Issue 1, pp 22-34, 2020, DOI: <http://dx.doi.org/10.13044/j.sdewes.d7.0260> (SNIP 0.589, H Index 17, , SJR 0.463).
15. **Manjare S D**. and Kabir Dingra, "Supercritical fluids in separation and purification: A review", Materials Science for Energy Technologies , 2 (2019) 463–484, ISSN: 2589-2991 (Elsevier, H index 25).
16. Manan Sarupriya, **Manjare S D** and Mohan Girap (2019), "Environmental Impact Assessment Studies for Mining Area in Goa, India Using the New Approach" Environmental Monitoring and Assessment, Volume 191(18).
<https://doi.org/10.1007/s10661-018-7135-z> (IF 3.420, H Index 122, SJR 0.623).
17. Tanmay Singhal and **Manjare S. D.**, "Modeling Studies on Reactive Absorption of Carbon Dioxide in Monoethanolamine Solution from Flue Gas in Coal Based Thermal Power Plants", "Journal of Sustainable Development of Energy, Water and Environment Systems, Volume 6, Issue 3, pp 481-493, 2018, (SNIP 0.589, H Index 17, , SJR 0.463).
18. Ravi Teja, Debopamaa Debnath , Arnika Jain and **Manjare S D**, "Modeling and Simulation of PBI based High Temperature Proton Exchange Membrane Fuel Cell " accepted for publication in Journal of Materials Today Proceedings, Elsevier Publication, 2016.
19. Bansal Shashwat and **Manjare S D** , "Theoretical Investigation on the Performance of Multicomponent Distillation Column for the Separation of Hydrocarbon Mixture Using Inside out Approach" International Journal of Chemical Engineering and Applications"

Volume 7, No 4, 282-286, 2016 (doi: 10.18178/ijcea.2016.7.4.590, I.F. 0.765).

20. Bansal Shashwat and **Manjare S D** "Detailed Simulation Approach of a Multicomponent Distillation Column using Inside Out Method: A Review" International Journal of Chemical Engineering, Vol.9(2), 2016, 171-191, ISSN : 0974-5793.
21. **Manjare S D**, Mohite R J "Cradle-to-gate and Gate to Gate Approach for Life Cycle Assessment of the Fertilizer Production" International Journal of Environmental Pollution Control and Management, Vol.8, No.2 (2016), ISSN : 0975-3842.
22. Deshpande V.K. **Manjare S.D.**, "Determination of Heat Transfer Coefficient in Solar Collector Tube under Simulated Operating Conditions" Journal of Alternate Energy Sources and Technology, Vol 4 (1), 2013, pp 7-12, (SJIF 4.395).
23. **Manjare S D**, Mohite R J, "Application of Life Cycle Assessment to Diammonium Phosphate Production" Advanced Material Research, Vols. 354-355(2012), 256-265(IF 0.87, H index 43, SJR 0.121).
24. **Manjare S.D.**, Ghoshal A K, "Studies on adsorption of ethyl acetate vapor on activated carbon" Industrial and engineering chemistry research, 45 (19),(2006), 6563-6569, (IF 4.326, H Index 231).
25. **Manjare S.D.**, Ghoshal A. K., "Adsorption equilibrium studies for ethyl acetate vapor and E-Merck 13X molecular sieve system", Separation and Purification Technology, 51 (2), (2006), 118-125, (IF 9.132, H Index 175).
26. **Manjare S.D.** Ghoshal A K, "A Comparison of Adsorption of Ethyl Acetate on Activated Carbon and Molecular Sieves 5A and 13X" Journal of Chemical & Engineering Data, 51 (4), (2006), 1185-1189, (IF 3.119, H Index 140).
27. Manjare S.D., Muhammad Haseen S., Ghoshal A. K., "Equilibrium and kinetics studies for As(III) adsorption on activated alumina and activated carbon", Environmental Technology, 26, (2005), 1403-1410, (IF 3.247, H Index 78).
28. **Manjare S.D.**, Ghoshal A. K., "Studies on dynamic adsorption behaviour of ethyl acetate from air on 5A and 13X molecular sieves", The Canadian Journal of Chemical Engineering, 83 (2005), 232-241 (IF 2.50, H Index 71)

29. **Manjare S.D.** Ghoshal A. K., "Selection of appropriate adsorption techniques for recovery of VOCs", Journal of Loss Prevention in Process Industries, UK, 15, (2002), 413-421, (IF 3.916, H Index 88).
30. **Manjare S. D.** and Ajit Pratap Singh "Environmental Education for Sustainable Development: Part II", Journal of Institution of Public Health Engineers, **Vol. 2007-08, No. 2**, (2007), p. 5-9.
31. **Manjare S. D.** and Ajit Pratap Singh, "Environmental Education for Sustainable Development: Part I", Journal of Institution of Public Health Engineers, **Vol. 2007-08, No. 1**, (2007), p. 5-9.
32. Manjare S.D., Khan Anees Y., Technologies for Separation of Volatile Organic Compounds (VOCs) from Exhausts, Chemical Industry Digest, October, (2006), 76-84.
33. **Manjare S.D. and** Khan Anees Y., "Cradle to Grave Approach: An Effective solution For Reduction in Environmental Pollution" Chemical Weekly, October, 10 (2006), 185-192.

Book Chapters / Monographs

1. Prepared course material on "Process Integration Using Pinch Analysis" for proceedings of the two days' workshop on Process Modeling and Simulation held at Department of Chemical Engineering BITS Pilani K K Birla Goa Campus Goa during 21st-22nd December 2017.
2. Prepared course material on "Process **Modeling and Simulation using Aspen Plus: Examples**" for proceedings of the two days' workshop on Process Modeling and Simulation held at Department of Chemical Engineering BITS Pilani K K Birla Goa Campus Goa during 21st-22nd December 2017.
3. A Book chapter (No. 4) on, "Environmental Management Tools for Sustainable Development" Published in the book titled Decision Sciences for Business Sustainability a Cross-Functional Perspective" Excel India Publishers New Delhi", ISBN Number: 978-93-86724-24-3, September 2017, PP 41-62.
4. A Book chapter (No. 28) on "Mathematical Modeling of Bitumen and Oil Shale Extraction Using Supercritical Fluid" Published in the book titled "Recent Advances in Chemical Engineering" published by Regupathi et al. (eds.), Springer Science + Business

Media Singapore 2016, PP 257-268 (ISBN 978-981-10-1632-5), DOI 10.1007/978-981-10-1633-2_28.

5. Prepared course material on “International Organization for Standardization (ISO) 14000”, for proceedings of the two days workshop on Environmental Management Systems for Industries in Goa, held at BITS Pilani K K Birla on 20th-21st October 2016.
6. Prepared course material on “Life Cycle Assessment”, for proceedings of the two days workshop on Environmental Management Systems for Industries in Goa, held at BITS Pilani K K Birla on 20th-21st October 2016.
7. Prepared course material on “Environmental Audit”, for proceedings of the two days workshop on Environmental Management Systems for Industries in Goa, held at BITS Pilani K K Birla on 20th-21st October 2016.
8. A Book chapter (No. 39) on “Life Cycle Assessment- a Tool for Environmental Management Systems” Published in the book titled “Environmental Science and Technology in India”, by Arvind Kumar and K Somashekhar, Daya Publishing House Delhi (ISBN 10 81-7035-541-9), 2008, p. 328-341.
9. Ajit Pratap Singh., S.K. Ghosh., Sampatrao D. Manjare (2007), “Use of an Optimization Model In River Basin Water Quality Planning” published in the book titled Environment Management Practices: An Indian Outlook edited by Edited by Karunesh Saxena and Nityesh Bhatt, Himanshu Pub, (ISBN : 8179061701)
10. Developed an Engineering Development Division (EDD) notes on Environmental Management Systems and is being used as a textbook for M.E. Chemical course CHE G513 (Environmental Management Systems) since 2005.
11. Prepared course material on “Basic Chemical Engineering Operations in Zinc Industry” for Academic Refresher Course Programme – II for the employees of Hindustan Zinc Ltd. Udaipur at BITS, Pilani, 9th October – 22nd November 2004.
12. Developed (as a co-author) an Engineering Development Division (EDD) supplementary note at BITS on Measurement Techniques –II (Theory) for Second year level students of BITS Pilani, 2002.
13. Developed (as a co-author) an Engineering Development Division (EDD) note at BITS on Measurement Techniques –II Laboratory for Second year level students of BITS Pilani, 2002.

Conferences (abroad)

1. S. D. Manjare and Nikita Dilip Bandekar, "Studies on dispersion of fugitive emissions of bauxite particles released from handling of cargo", published in the proceedings of 3rd International Conference on Sustainable Energy and Environment Development (SEED2019) held during October 16-18, 2019, in Krakow, Poland
2. Manan Sarupria, S. D. Manjare, Mohan Girap, "Environmental impact assessment studies for mining area in goa Using the new approach" published in the proceedings of 13th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, **held during** 30th September - 4th October, 2018, at Palermo, Italy.
3. Amit Shanbag and Sampatrao Manjare "Life Cycle Assessment of Methyl Bromide Production Process" published in the proceedings of 13th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, **held during** 30th September - 4th October, 2018, at Palermo, Italy.
4. Tanmay Singhal and **Manjare S. D.**, "Dynamic Modelling Studies on Reactive Absorption of SO₂ from Flue Gas in Coal Based Thermal Power Plant", published in the proceedings of 12th *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Dubrovnik, Croatia, October 4-7, 2017.
5. Amit Shanbag and Manjare S.D., "Life Cycle Assessment of Tyre Manufacturing Process", published in the proceedings of 12th *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Dubrovnik, Croatia, October 4-7, 2017.
6. Hanish Gupta and **Manjare S. D.**, "Improvement in Isooctane production process via introduction of Mass Exchange Network (MEN), published in the proceedings of *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Lisbon, Portugal, Sep 4-9, 2016, pp 2016.
7. Tanmay Singhal and **Manjare S. D.**, "Absorption of CO₂ from Coal Based Thermal Power Plant Using Monoethanolamine (MEA) Solution", published in the proceedings of *International Conference* on Sustainable Development of Energy, Water and Environment System, held at Lisbon, Portugal, Sep 4-9, 2016, pp 395.
8. **Manjare S. D.** and Mohite R. G., "Application of Life Cycle Assessment to Diammonium Phosphate Production", published in the proceedings of *International Conference* on

Energy, Environment and Sustainable Development, held at Shanghai, China, October 21-23, 2011, pp 32.

9. Patil K.G., **Manjare S.D.**, and Ghoshal A. K., "Equilibrium and kinetic studies for ethyl acetate vapour adsorption on activated carbon", presented and published in the proceedings of *10th Asian Pacific Confederation of Chemical Engineering*, Japan (APCCHE_2004), held at Kitakyushu, Japan, during October 17th –21st, 2004.

Conferences (India)

1. MILIND JOSHI, CHANDRESH DWIVEDI, S.D. MANJARE, "Development and application of biomass based green filler in rubber composites", presented and published in the proceedings of International Rubber Conference (IRC 2022) held at Bangaluru during 24th to 26 November 2022.
2. Chandresh Dwivedi, S.D. Manjare, Sushil K Rajan, "Alternative Filler Material For Rubber Compounds – A Step Towards A Circular Economy" presented and published in the proceedings of International Rubber Conference (IRC 2022) held at Bangaluru during 24th to 26 November 2022
3. S D Manjare, "Circular Economy for Sustainable Development in Tyre Industries" presented and published in the proceedings of International Rubber Conference (IRC 2022) held at Bangaluru during 24th to 26 November 2022.
4. Vinoth Kannan, Vivek Rangarajan, and **Sampatrao D Manjare**, "Isolation, identification and characterization of the potent ethanol producing yeast strain from Cashew Apple Juice (CAJ)" presented and published in the proceedings of International Conference on Chemical Engineering: Enabling Transition towards Sustainable Future held at IIT Roorke during September 8-10, 2022.
5. **S D Manjare** and Yogesh Donolikar," "Investigation on Atmospheric Dispersion of Limestone Particulates at the Sea Port" presented and published in the International Conference on Advances in Energy, Environment for Sustainable Development (AEESD-2022) organized by Dept of Chemistry, SOA, DU, Bhubaneswar in collaboration with Dept of Civil Engineering, NIT Meghalaya, during January 7-8, 2022 (virtual mode).
6. **S D Manjare** ,"Towards Sustainability in Process Industry" presented and published in the proceedings of the 6th ISDC 2022, International Convention and Exhibition on

Home and Personal care products and Ingredients organized by The Indian Home & Personal Care Industry Association (IHPCIA) and held in Goa during 10 to 12th July 2022.

7. Raksha, Chandresh Dwivedi, **Sampatrao Manjare**, “Transition metal based carbon composite for adsorptive desulfurization of tire derived fuel oils”, published in the proceedings of International Conference on Novel Materials and Technologies for energy and Environment Applications organized by Department of Chemical Engineering BITS Pilani - Hyderabad Campus held online during 18th - 19th February, 2022.
8. Kavita Vithal Patil, Thomas Boving, **S D Manjare**, Pratik Shinde, “Geophysical study to map the aquifer for RBF technology in Goa, India” presented and published in the proceedings of Fourth Indian National Groundwater Conference organized by centre for water resources, Institute of Science and Technology, JNU, Hyderabad and Association of Global Groundwater Scientists, Coimbatore, India in collaboration with IIT Hyderabad and CSIR-National Geophysical Research Institute, Hyderabad held online during 22nd-24th March 2021.
9. Anirvan K. Majumdar and S. D. Manjare “Quantification of the Environmental Impact of Water Pollutants Using Fuzzy Comprehensive Model” presented and published in the proceedings of Indo-German Joint Scientific Workshop on Membranes for Water and Energy” held at CSIR-Central Salt and Marine Chemicals Research Institute Bhavnagar, Gujarat during February 18th -20th 2019.
10. Anirvan K. Majumdar and S. D. Manjare, “Multivariable Impact Assessment using Fuzzy Logic based model”, presented and published in the proceedings of 12th ISDSI (Indian Subcontinent Decision Sciences institute) *International Conference* held at SPJIMR, Mumbai, during December 27-30, 2018.
11. Ambika N. Parab, Sampatrao D. Manjare, Halan Prakash, “Studies on removal of atrazine herbicide by chemical degradation” published in the proceedings of DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.
12. Sampatrao D. Manjare; Kabir Dhingra, “Supercritical Fluids in Separation and Purification: A Review” published in the proceedings of DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.

13. Khantil Buch, S. D. Manjare, "Environmental Impact Assessment Methodologies: A Review and a New Approach for Assessment", presented and published in the proceedings of 11th ISDSI (Indian Subcontinent Decision Sciences institute) *International Conference* held at IIM Trichy , during December 27-30, 2017.
14. Tanmay Singhal and Manjare S. D., "Modelling Studies on Reactive Absorption of SO₂ From Flue Gas in Coal Based Thermal Power Plant", published in the proceedings of 5th *International Conference* on research frontiers in chalcogen cycle science and technology, organized by UNESCO-IHE, NIT Surathkal held at Goa, December 19-21, 2016, pp 46.
15. Chayan Anand; Manasvi Nandwana and Sampatrao D. Manjare., "An overview of current status of sulfur oxides emissions and reduction technologies", published in the proceedings of 5th *International Conference* on research frontiers in chalcogen cycle science and technology, organized by UNESCO-IHE, NIT Surathkal held at Goa, December 19-21, 2016, pp 27.
16. Garad N M and Sampatrao D Manjare, "Environmental Management Tools for Sustainable Development" published in the proceedings of 10th ISDSI (Indian Subcontinent Decision Sciences institute) *International Conference* held at Nasik, December 28-30, 2016, pp 68-69.
17. Shashwat Bansal and **Sampatrao D Manjare**, "Theoretical Investigation on the performance of Multicomponent Distillation Column for the Separation of Hydrocarbon Mixture using Inside Out Approach", published in the proceedings of *68th Annual Session of Indian Institute of Chemical Engineers, "CHEMCON 2015"* held at IIT Guwahati, December 27-30 , 2015.
18. Probal Guha, Tanmay Netke, **Sampatrao D. Manjare**, "Mathematical Modelling of Bitumen and Oil Shale Extraction Using Supercritical Fluid" published in the proceedings of International Conference on Advances in Chemical Engineering held at NIT Suratkal, December 20-22 , 2015, pp 30
19. Ravi Teja, Debopamaa Debnath, Arnika Jain and **Sampatrao Dagu Manjare**, "Modeling and Simulation of PBI based High Temperature Proton Exchange Membrane Fuel Cell "published in the proceedings of *International Conference on Advanced in Energy Research*, held at IIT Bombay, December 15-17 , 2015, pp 265-266.

20. Neh Vivek Kovale, **Manjare S D.**, "Mathematical Modeling of the Dispersion of Air Pollutants from Multiple Sources for the City of Bokaro, Jharkhand, Published in the proceedings of *International Conference on Green Technology for Environmental Pollution Prevention and Control*, held at NIT Tiruchirappalli, September 27-29 , 2014, pp 24
21. Pranav Kulkarni, Amey Avhad, **Manjare S D.**, "Distillation of a Multicomponent Mixture: Performance Analysis using Equilibrium Based Method, "Published in the proceedings of *International Conference on Frontiers in Chemical Engineering*, held at NIT Rourkela, December 9-12 , 2013, pp 64.
22. Pranav Kulkarni, **Manjare S D**, Amey Avhad, "Performance Analysis of Multicomponent Absorption System using Sum Rates Method, "Published in the proceedings of *National Conference on Innovations in Chemical Engineering*, held at BITS Pilani, Hyderabad Campus, November 15, 16 , 2013, pp 154-156.
23. Jadhav A. B. and **Manjare S. D.**, "Experimental Investigation of Single Proton Exchange Membrane (PEM) Fuel Cell Performance" Published in the proceedings of *International Conference on Recent Advances in Chemical Engineering and Technology*, held at Cochin University of Science and Technology, Kochi, India, March 10-12, 2011, pp 97.
24. **Manjare S. D.** and Mohite R.G., "Engineering Solutions and Research Strategies to Mitigate Climate Change" published in the proceedings of Indo-Italian Conference on Emerging Trends in Waste Management Technologies, held at MIT Pune, December 3-4, 2009, pp 200-206.
25. **Manjare S.D.**, "ISO 14000: A Basic Approach For Sustainable Development" presented and **published in the proceedings of** iInternational Congress of Environmental Research-2008, held at BITS-Pilani, Goa Campus, December 18-20, 2008.
26. **Manjare S.D. and Jadhav Apeksha,** " Environmental Impact Assessment of Fuel Cell Technology" presented and **published in the proceedings of International Congress of Environmental Research-2008**, held at BITS-Pilani, Goa Campus, **December 18-20, 2008.**
27. **Manjare S.D.**, "Adsorption Technology For Air and Water Pollution Control" Published in the proceedings of National Conference on *Energy Management in Marine and Engineering Applications*, held at Tolani Maritime Institute, Induri, Pune, March 2-3, 2007.

28. Deshpande V.K., **Manjare S.D.**, "Performance Measurement of Solar Flat Plate Collector" Published in the proceedings of National Conference on *Energy Management in Marine and Engineering Applications*, held at Tolani Maritime Institute, Induri, Pune, March 2-3, 2007.
29. **Manjare S.D.**, Anees Khan, "Recovery/Removal Techniques for Volatile Organic Compounds (VOCs)", Published in the proceedings of "*All India Seminar on Air Pollution & Health Impacts (AISAPHI)*", Institution of Engineers (India), held at IIT Roorkee, February 23-24, 2006 pp 185-199.
30. Khan Anees Y., **Manjare S.D.**, "A Green Technology Approach for Industrial Products", Published in the proceedings of National Conference on *Design for Product Life Cycle (DPLC)*, held at BITS Pilani, February, 17-18 2006.
31. Singh A. P., Ghosh S.K. and **Manjare S.D.**, "Use of an Optimization Model In River Basin Water Quality Planning" published in the proceedings of *International Conference on Environment Management Practices in India: Issues, Imperatives and Implications*, held at Uaipur, March 3 – 5, 2006.
32. **Manjare S.D.**, S.H. Muhammad Haseen Sadique, Karthick S. and Singh A.P., "Arsenic (III) removal from water by adsorption" Published in the proceedings of *Fifth International R&D Conference*, held at Bangalore, February 15-18, 2005, pp III-115 -- III-123.
33. **Manjare S.D.**, Karthick S., "Feasibility Studies on a Single Basin Solar Still to purify drinking water" Published in the proceedings of *International Congress on Renewable Energy (ICORE 2005)*, held at Pune, January 20-22, 2005, pp 433-438.
34. **Manjare S.D.**, Shraddesh Malviya, "Development & Recent Advancement in Fuel Cells and Modeling Review of PEM Fuel Cell" published in the proceedings of *International Conference on Electrochemical Power Systems*, Hyderabad, and December 20-21, 2004.
35. **Manjare S.D.**, Poorna Prakash R., "Removal of Arsenic from Water by Precipitation and Solidification Technique" published in the proceedings of *International Conference on Energy and Environment Strategies for Sustainable Development*" (ICEE-SSD) held at Jamia Millia Islamia, New Delhi, January 23-24, 2004, PP 336-350.
36. **Manjare S.D.**, Karthick S, "Life Cycle Assessment- a Tool for Environmental Management Systems" Published in the proceedings of *National Seminar on New*

Horizons in Environmental Sciences and Engineering In India, held at Bangalore, November 17-19, 2004.

37. **Manjare S.D.**, Karthick S, “Sustainability and Human Development” Published in the proceedings of *National Seminar on New Horizons in Environmental Sciences and Engineering In India, held at Bangalore, November 17-19, 2004.*
38. Ghoshal A.K., **Manjare S.D.**, “Adverse impact of population growth on environment and possible remedies”, published in the proceedings of *International Conference on Population, Development & Environment, held at BITS, Pilani, March 15-16, 2002, pp 81-97.*
39. Ghoshal A.K., **Manjare S.D.**, “Development & Application of Adsorption Techniques & their future prospects”, published in the proceedings of *intensive course on Novel Separation Techniques And Their Applications To Indian Chemical Industries (SIC’ 2001)*, held at BITS, Pilani, March 21-30, 2001, pp 18-56.
40. Khan F. I., Ghoshal A. K., and **Manjare S.D.**, “VOC chemistry in atmosphere and its control”, published in the Proceedings of *National Conference on Industries and Environment, held at Karad, December 28-30, 1999.*

Visit to Universities Abroad

- University of Lisbon, Portugal
- University of Porto, Portugal
- University of Averio, Portugal

Seminars / Invited Talks

- Invited talk on “Reinvention of Materials through recycle A Step Towards Circular Economy” during 2nd Green Investment & Sustainability Summit 2022, Accelerating Decarbonization for Sustainable Growth, held on 13 - 14 December 2022, Goa.
- Invited talk on “Holistic Approach to the Assessment of Sustainability” during CECAR9 (Civil Engineering Conference in Asian Region) held at Goa from 21^s to 23rd September 2022.

- Talk as a resource person on “Recent Trends in Chemical Engineering” during Faculty Development Programme (FDP) organized by Dept of Chemical Engg at Padmashri Dr. Vitthalrao Vikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during 19th to 23rd April 2022.
- Talk on “Overview of Effluent Treatment Plants and Sewage Treatment Plants fundamentals and video demonstrations” during Training Workshop on Operation and maintenance of STPs and ETPs (Part 2) organized jointly by The Energy and Resource Institute (TERI), Goa and Goa State Pollution Control Board, Goa, at Goa, 25-26th February 2021.
- Talk on “Entrepreneurial Tool for Green Innovations and Business Management” during 18th National Conference on Occupational Safety, Health and Environment organized by Green Triangle Society Panji, Goa under the aegis of Inspectorate of Factories and Boilers, Govt of Goa, at Goa, 12th December 2020.
- Talk on “Operational Issues and Possible Solutions in Effluent Treatment Plants and Sewage Treatment Plants” during Training Workshop on Operation and maintenance of STPs and ETPs (Part 1) organized jointly by The Energy and Resource Institute (TERI), Goa and Goa State Pollution Control Board, Goa, at Goa, 10th-11th December 2020.
- Indian Medical Association, Mormugao invited to give a talk on, “Impact of Air Pollution on Human Beings” during their annual meeting held at Vasco on 7th March 2019.
- Talk on “Quantification of the Environmental Impact of Water Pollutants Using Fuzzy Comprehensive Model” during Indo-German Joint Scientific Workshop on Membranes for Water and Energy” organized by CSIR-Central Salt and Marine Chemicals Research Institute at Bhavnagar, Gujarat, 18th -20th February 2019.
- Talk on “Environmental Management Tools for Sustainable Development” at Department of Chemical Engineering, *KLE DR.M S Sheshgiri College of Engineering and Technology, Belgaum*, 15th November 2017.
- Talk on “Process Integration Using Pinch Analysis” during the workshop on Process Modeling and Simulation on 21st& 22nd December 2017 at Department of Chemical Engineering BITS Pilani K K Birla Goa Campus Goa.
- Talk on “Environmental Management Systems” at Department of Chemical Engineering, BITS Pilani Dubai Campus, Dubai on 16th April 2017.
- Talk on “Process Design and Decisions” for faculty delegates during “one week content updating programme on material of construction for process equipment and piping”

organized by Dept of Chemical Engg at Padmashri Dr. VitthalraoVikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during from 29th December 2014 to 2nd January 2015.

- Talk on “Sustainability Assessment Tool for Industries” on “World Environment Day, 5th June 2014,” organized by Goa State Pollution Control Board at Panaji, Goa.
- Key Note Address on” Fuel Cells for Sustainable Energy Future” during the Students Chemical Engineering Congress (SCHEMCON-2012) on Energy Efficient Technologies for Green Environment” organized by Dept of Chemical Engineering BITS Pilani, Pilani Campus, Rajasthan, during September 21-22, 2012.
- Key Note Address on “Energy Management and Audit” during the workshop for faculty delegates on Energy Management and Audit organized by Dept of Chemical Engg at Padmashri Dr. VitthalraoVikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during 5th-9th September 2011.
- Talk on “Pinch Technology: Process intensification Technology” during the workshop on Energy Management and Audit organized by Dept of Chemical Engg at Padmashri Dr. VitthalraoVikhe Patil Institute of Technology and Engineering (Polytechnic) Pravaranagar during 5th-9th September 2011.
- Talk on “Internal Quality Assurance in Academic Institutes” during the programme on “NBA Accreditation ISO and Academic Audit in Technical Institutes, January 10 -21st 2011 at National Institute of Technical Teachers Training and Research (NITTR) Bhopal, Extension Centre Goa.
- Talk on “Environmental Audit” during the workshop on “Carbon Credit and Energy Audit” August 16-20th, 2010 at National Institute of Technical Teachers Training and Research (NITTR) Bhopal, Extension Centre Goa.
- Talk on “Life Cycle Assessment (LCA): A Proactive Approach for Sustainable Development” during the workshop on “Carbon Credit and Energy Audit” August 16-20th, 2010 at National Institute of Technical Teachers Training and Research (NITTR) Bhopal, Extension Centre Goa.
- Seminar on Technological Measures to Combat Climate Change on Engineer’s day , September 15th 2009 at BITS-Pilani, Goa campus
- Talk on Advances in Chemical Engineering for polytechnic students on September 17th 2007 at Polytechnic College Loni, Ahmednagar (Maharashtra).

- Seminar on Sustainability and Human Development on Engineer's day , September 22nd 2006 at BITS-Pilani, Goa campus

Short Term Courses/Workshop/Seminar Etc. Attended

- Participated in the workshop on 'Air quality management to develop local action plans' under the EU Funded Project on 'A Collaborative Approach to Further Improve Air Quality in Indian Cities' on 16th September, 2017 at Taj Vivanta, Panaji, Goa
- Attended Brain Storming Session on Environmental Geotechnics organized by IIT Bombay under the aegis of SERB and DST on 24th -25 Jan 2017 at Goa.
- 2nd International Hydrogen and Fuel Cell Conference organized by Hydrogen Association of India, held at Cidade de Goa in Panji, Goa during 1-3 December 2013.
- International Conference on "Water Security on Sustainable Basis" held at Mazorda, Goa, on 24-25th August 2012.
- Two days workshop on "Patent Search, Documentation, Drafting and Infringement Analysis" held at BITS, Pilani on 3rd and 4th March 2006.
- Four days short term course on "Air quality Monitoring and Management" held at Ghaziabad U.P. from 9th to 12th August, 2000.

Review of technical papers for conference/journals

- Reviewer of Research papers for various International journals
 - ✓ Journal of Chemical Engg data
 - ✓ Chemical Engg Journal
 - ✓ Industrial Engg and chemistry research
- Reviewer of Research papers for various conferences in India and Abroad.
- Appointed as an external examiner for examining the dissertation reports of M.E. Chemical Engg Students of Sinhgad College of Engineering, University of Pune, Sep 2013 and in August 2014.

ADMINISTRATIVE EXPERIENCE

- Associate Dean, Admissions, BITS, Pilani, K K Birla Goa Campus, Goa, January 2014-August 31, 2018.
- Professor in Charge, Academic Research Division (PhD and ME programme; BE thesis), BITS, Pilani, K K Birla Goa Campus, Goa, August 2006 - January 2014.
- Professor in Charge, Sponsored Research Division (Research Projects, Industrial Collaborations and Consultancy), BITS, Pilani, K K Birla Goa Campus, Goa, August 2006 - January 2014.
- Professor in Charge, Educational Development Division (organization of workshops, conferences, development of new course, study material etc) BITS, Pilani, K K Birla Goa Campus, Goa, August 2006 - January 2014.
- Professor in Charge of Chemical Engineering Association, Department of Chemical Engineering, BITS-Pilani, Rajasthan, December 2002 - April 2006.
- Warden, Bhagirath Bhawan, BITS-Pilani, Rajasthan , July 2003 - May 2006
- Non – residential warden of Vyas and Malviya Bhavan Bhavan BITS-Pilani ,Rajasthan, May 2001 - July 2003
- Assistant Rector and Sports in Charge, Lakeview Hostel, Pravara Rural Engg College, Loni, Pune University, August 1994 - December 1995

Assignments handled/ handling at Department / Institute level

- Member of the Board of the Trustees for Employees Provident Fund Trust from Jan 2022 to Jan 2027.
- Member of House Allotment Committee from August 2022 to August 2024.
- Member of Department Research Committee and Department Committee for Academics
- Member of core team to facilitate the visit of National Assessment and Accreditation Council (NAAC) team to BITS, Pilani, K K Birla Goa campus, Goa, 2016.
- Member of the committee for preparation of BITS University review report for UGC committee visit and nodal point for Goa campus 2016
- Co-ordinator of the Committee for preparation of self analysis report to be submitted to National Assessment and Accreditation Council (NAAC) for BITS, Pilani, K K Birla Goa campus, Goa, 2015.
- Member of the committee for Internal Quality Assurance Cell (IQAC) BITS, Pilani, K K Birla Goa campus, Goa, 20013-2018.
- Member of the committee to study the directions of the court and requirements of UGC for implementation of the provision of Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995, 2016.
- Chairman of the committee for Internal Quality Assurance Cell (IQAC) BITS, Pilani, K K Birla Goa campus, Goa, 2007-2014.
- Chairman of the committee for Higher Degree Counseling, BITS, Pilani, K K Birla Goa campus, Goa, 2006-2014.
- Co-ordinator of the Committee for preparation of UGC XI plan for BITS, Pilani, K K Birla Goa campus. 2007-2010

- Co-ordinator of the Committee for preparation of self analysis report to be submitted to National Assessment and Accreditation Council (NAAC) for BITS, Pilani, K K Birla Goa campus, Goa, 2009.
- Co-ordinator of the Committee for BITS seed grant BITS, Pilani, K K Birla Goa campus, Goa 2010-2013
- Convener of the committee for Research Initiation Grant, BITS, Pilani, K K Birla Goa campus, Goa, 2010-2013
- Convener of the committee to decide research performance indicators for faculty appraisal BITS, Pilani, K K Birla Goa campus, Goa, 2010
- Convener of the committee for plagiarism investigation , BITS, Pilani, K K Birla Goa campus, Goa 2013
- Member of the various committees such as examination, departmental research committee, recruitment, senate, cross campus faculty appraisal, host allotment committee etc BITS, Pilani, K K Birla Goa campus, Goa
- Lab in-charge, Process control and Environmental Engineering Laboratory, Department of Chemical Engineering, BITS-Pilani, Rajasthan, 2000-2006
- Member of committee for revamping the curriculum for BE and ME Chemical Engineering at BITS Pilani, Rajasthan, 2000
- Member of Committee for the development of reading courses at BITS Pilani, Rajasthan, 2005
- Member of committee for revamping the course content of Measurement Techniques – II at BITS Pilani, Rajasthan, 2000.
- Member of committee for Library, BITS, Pilani Rajasthan, 2002, 2004

- Member of the Center for Renewable Energy and Environment Development (CREDD)
BITS Pilani, Rajasthan 2001-2006
- Member of committee for setting up of new sewage treatment plant at BITS, Pilani,
Rajasthan, 2005

Other Academic Work

- Reviewer of the PhD proposals and Research Proposals
- Doctoral Advisory Committee member for PhD students
- Resource faculty for Intensive Teaching Workshop (ITW) at BITS Pilani
- Examiner for Ph.D. qualifying examination
- Was Practice School-I Instructor in 1998, 1999, 2000, at Aurangabad, and in 2019 at Nasik Maharashtra.
- Proctor for BITS AT 2005 duty at Mumbai.
- Academic Councilor to students at BITS Pilani

Review of technical papers for conference/journals

- Reviewer of Research papers for various International journals
 - ✓ Journal of Chemical Engg data
 - ✓ Chemical Engg Journal
 - ✓ Industrial Engg and chemistry research
- Reviewer of Research papers for various conferences in India and Abroad.
- Appointed as an external examiner for examining the dissertation reports of M.E. Chemical Engg Students of Sinhgad College of Engineering, University of Pune, Sep 2013 and in August 2014.

Membership of Professional Societies

- Life Member of Indian Institute of Chemical Engineers (LMIIChE-20755)
- Member of American Institute of Chemical Engineers (MCIC)
- Member of Hydrogen Association of India
- Life Member of Engineers Without Borders(EWB) PFL 152