

## Dr. Mrs Anjali K. Khambete



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Qualification :	B.E, 1979, M.E (Civil) 1987, Ph.D, from S.V.R. College of Engg. and Tech./ S. V. National Institute of Technology.
Designation :	Associate Professor
Department	Civil
Date of Joining	3 April 1984
Experience	33years at UG and 30 years at PG
Research Area	Environmental Engineering, water and Wastewater
Courses / Subject Involved With:	Industrial water and waste water, Environmental Legislation, Environmental solid waste management, .Environmental Chemistry and Microbiology, Unit Processes in Environmental Engineering, Unit

Operations in Environmental Engineering, Air Pollution and Control Sustainable Water and Sanitation Systems (M.Tech).

Environmental Engineering I Engineering Drawing Basic Civil and Environmental Engineering Water Treatment and Distribution Systems Municipal Solid Waste Management Water and Wastewater Treatment Air Pollution and Control, Building Construction and Material, Building Planning, Building Maintenance, Surveying, (B,E/B.Tech).

#### Professional Experience

\* Associate Professor in the Department of Civil Engineering, S V National Institute of Technology, Surat, January 2006 onwards.

• Lecturer, in the Department of Civil Engineering, S V National Institute of Technology, Surat, 19 April 1984-2006.

\*Lecturer, in Civil Department,

\*Worked as Junior Engineer at Narmada circle and Ahmadabad Irrigation circle from 1979 June-1982

#### Ph.D. Student ( Guided)

5 ongoing

#### M. E/ M Tech Dissertations guided

23 Nos

Guided more than 23 students in different areas. Topics related to Life Cycle Assessment (LCA), Fuzzy FCP, MCDM and FRBS, Design of incineration, **Reduction of very strong COD, Ammonical nitrogen from CETP wastewater with the application of wet air oxidation, and chemical oxidation processes. Treating bulk drug Industrial effluent with different Techniques, Treating Pesticide industrial wastewater with different technologies including bio degradation with specific culture, all these studies are on actual industrial wastewater on pilot plant scale.** Treating different industrial and domestic wastewater with the help of RBC, UASBR, ASP, Boron doped and Graphite electrodes processes.

	Topics related to vermin composting, Statistical correlation and regression analysis, transportation modeling. Topics related to air pollution through vehicular traffic and predictive modeling of the data Identifying Role of Mangroves in environmental engineering at Jamnagar region of Gujarat (with collecting actual field data).
Project Guided	26 nos. Guided more than 24 years different projects on topics related to construction engineering, Rehabilitation techniques, wastewater and water treatment plant designs. CETP design aspects, design of land fill and TSDF sites its construction, and maintenance related issues. (B.E/B. Tech).
Research Publications :	34
Workshops / Seminars / STTPs :	6/ 3/ 4
Conferences Attended Abroad	9 Chair the session at S. Africa July 2016 and Tokyo, Japan May 2017.and best paper presentation award at Int. conf Tokyo, Japan May 2017.
Books :	8
Membership of Professional Bodies :	Indian Society for Technical Education since (1994) <b>Bio data published in Marquis Who's Who since 1994 and Indo European Who's Who. Since 1995 till date.</b>
Expert lectures delivered	8 Lectures delivered within and outside the Institute.
Review of Journals	*IBIC2012 3rd Intern. Conference on Industrial Biotechnology, Palermo, 24-27 June 2012 3 2. *European Journal of Operational Research. 4 3. *International Scholars Journal.
Important Administrative Duties	*Dean Planning and Development. 2017 Feb.

\*Presiding Officer of ICC (woman sexual harassment at work place) 2015 onwards.

\*Co Chairman of Department Disciplinary committee. 4 years.

\*PG Section Head, Environmental Engineering, 2017 onwards.

\*Laboratory-in-charge, Environmental Engineering, more than 7 years-

\*-in-charge for drawing section, 6 years.

\*Factotum for exam section. 2 years.

Any Other Information

- **Acting as Nominee director at Vapi Green Enviro Limited.(vapi),**
- **Acting as Nominee director at Sarigam Clean Initiative ( Sarigam ).**
- **DIN NO: 02935521.**
- **Expert committee for Common facilities i.e. TSDFs, CHWIF, & register recycler of E – waste framed by GPCB. Gandhinagar .**

#### **CONSULTANCY and Other Expertise Work:**

- Working as an active member of Environment Audit Cell. Carried out Environment Audits of following SCHEDULE-I industries:
  - I. Reliance Industries Ltd-Hazira, Surat
  - II. Navin Fluorine Industries-Bhestan, Surat
  - III. Gujarat Paguthan Energy Corporation-Paguthan, Bharuch
  - IV. Torrent Power, Kamrej, Surat.
  - V. Vapi, CETP for Vapi Green Enviro Ltd.
- Back check of SCHEDULE-II industries in areas of Sachin GIDC, Pandesara GIDC, Kadodara, Palsana, Surat city.
- Analysis of water and waste water samples at collage laboratory.
- **Acted as member of odour committee of three members with the order from GPCB governing authority, to define and the resolve the problems of odour at GIDC Bharuch, Ankleshwar and Panoli area.**
- **Resolve the problem of noise nuisance at FETP Bharuch.**

- Acted as member to inspect the problem of odor pollution, VOC release in the environment, air and gas pollution at Palsana , GIDC, appointed by GPCB, Gandhinagar.

### **SELECTED RECENT PUBLICATIONS Refereed International Journals**

Khambete A. K , Christian R. A. and Anaokar G.S. “Prediction of Major Wastewater Characteristics of Urban Wastewater Treatment Plant Using Fuzzy Composite Programming” Water Conservation Science and Engineering, Springer Vol 2 (3), Page 99-107., July 2017.

Randhavane Shrikant B. and Khambete A. K., “Harnessing Hydroxyl Radicals Generated by Hydrodynamic Cavitation Reactor in Simultaneous Removal of Chlorpyrifos Pesticide and COD from Aqueous Solution”; Desalination and Water Treatment (SCI-E Indexed), July, 82 (2017) Page 346–354.

Randhavane Shrikant B. and Khambete A. K., “Hydrodynamic Cavitation: An approach to Degrade Chlorpyrifos Pesticide from Real Effluent”, KSCE-Journal of Civil Engineering, (SCI-E Indexed), Accepted on July 16, 2017.

Randhavane Shrikant B. and Khambete A. K., “Chlorpyrifos: An Emerging Contaminant in Natural Environment and Treatment methods: Mini Review”, Ecology, Environment and Conservation.(SCOPUS indexed) Vol 1,2018 Accepted on June 15, 2017.

Randhavane Shrikant B. and Khambete A. K.; “Hydrodynamic Cavitation: A Novel Treatment Approach”, Materials Today: Proceedings” (SCOPUS indexed) Accepted on June 27, 2017.

Ayush Ransingh and Khambete A. K. “Hydrodynamic Cavitation: A Promising Technique for pre-treatment of Common Effluent Treatment Plant (CETP) influent wastewater, National Conference on Civil and Mechanical Engineering, April 2017.

Khambete A.K and Christian R. A., “Statistical analysis to identify the main parameters to effecting WWQI of sewage treatment plant and predicting BOD”, International Journal of Research in Engineering and Technology; (IJRET); e ISSN: Page 186-194.2319-1163pISSN:- 7308.

Satpal and Khambete A. K, “Wastewater Treatment using Microalgae – A Review paper”, International Journal of Engineering Technology, Management and Applied Sciences (IJETMAS), Feb 2016.

Jain A. R.and Khambete A. K.; “Odour control in pesticide industries”; Journal of Environmental Research and Development, Vol 10, (1) July- September 2015.

Chitnis K. A. and Khambete A.K. ,”Fuzzy MCDM approach for Air Quality Assessment “;International Journal for Innovative Research in Science & Technology(IJIRST) ,Vol 1 (1), April 1 2015 .

Randhavane Shrikant B , Khambete A. K.; “Identification and Treatment Methodologies for Pesticides in Waste Water”, International Journal for Innovative Research in Science & Technology(IJIRST) , Vol.1 ( 10); April 2015.

Rajput Dipesh C. , Khambete A.K., “Performance of Sequencing Batch Biofilm Reactor on Low Filling Ratio to Treat Sewage”, International Journal for Innovative Research in Science & Technology Vol 1 (10), March 2015 .

Rajput Dipesh C.; Khambete A.K., “Performance of Sequencing Batch Biofilm Reactor to Treat Sewage, “International Journal for Innovative Research in Science & Technology Vol 1(10) March 2015.

Gowtham Sarella and Khambete A.K.; “Ambient Air Quality Analysis Using Air Quality Index - A Case Study of Vapi”, International Journal for Innovative Research in Science & Technology Vol 1 (10) March 2015.

Chitnis K. A. and Khambete A.K.; “Application of Fuzzy logic in Noise Pollution & Air Quality - Review “;International Journal of Advance Engineering and Research Development (IJAERD), Page 26- 27 Feb 2015

Randhavane Shrikant B .; Khambete A.K., “Pesticide Industry-A Review of 12th Five Year Plan “; Journal of Advance Engineering and Research Development (IJAERD) , 27 Feb 2015.

Khambete A.K and Christian R. A., “Ranking Sewage Treatment Plants with the Application of Fuzzy Composite Programming”; International Journal of Scientific Engineering and Technology, (IJSET) Vol. 3(2),Page : 116-120. ISSN: 2277-1581, Feb. 2014

### **Papers Published in Conferences**

Randhavane Shrikant B. and Khambete A. K. “Degradation of Chlorpyrifos Pesticide in Aqueous Solution and Chemical Oxygen Demand from Real Effluent with Hydrodynamic Cavitation Approach”, 19<sup>th</sup> International Conference on Environment and Water Resource Management, Tokyo, May 28-29, 2017.

Anoakar G.S. , Khambete A.K. and. Christian R.A. “Study of Reaction Kinetics of Municipal Biomass Digester”, International Conference on Recent Innovations in Engineering and Technology (ICRIET), Nov,2016.

Partha Tripathy; Khambete A.K. , Chauhan Krupesh C. and Rajeev.K.R; “Urban Mobility Performance Measurement Framework Using Fuzzy MCDM Method- An Innovative Approach”, International Conference on Recent Innovations in Engineering and Technology (ICRIET), Nov,2016

Randhavane Shrikant B.,and Khambete A. K.,” Use of Hydrodynamic Cavitation Reactor in Degradation Of Chlorpyrifos”, International Conference on Recent Innovations in Engineering and Technology (ICRIET), Odissa, Nov 2016.

Randhavane Shrikant B, Khambete A. K., “Pesticide Industry: A General Insight”, 5<sup>th</sup> International Conference on Recent Trends in Engineering and Technology 2016, April 2016.

K. A.Chitnis, Khambete A. K, “Review: Common Effluent treatment Plant”, National Level Conference on Emerging Technology for Innovation, March 2016.

Satpal, Garg Sooraj, Khambete A. K., “Primary Aluminium Industries - Present Status In India And Control Of Pollutants”, National Conference on Recent Advances in Civil Engineering (RACE 2016), March 2016.

Sudhanshu Kamat and Khambete A. K, “Role of Chemical Oxygen Demand in the Anaerobic Digestion of Food Waste and Biological Sludge”, 1st National Conference of Recent Advances in Civil Engineering (RACE 2016), March 2016.

Anvita Tripathi and Khambete A. K, “Fuzzy MCDM approach for assessment of effluent quality for sewage treatment plant”, National conference on recent advance in civil engineering (RACE 2016), SVNIT, Surat, March 2016.

Sudhanshu Kamat and Khambete A. K. “Biogas Generation by Co-Digestion with Organic MSW- A Review”, National Conference On Mechatronics, Feb 2016.

### **Books published / in last three years**

1. A. K. Khambete, “Biogas Generation from Sludge of Common Effluent Treatment Plant.”, Lambert Academic Publishing, 2012. ISB N 3659231975, 9783659231971 2.

2. Jain Abhishek Anjali Khambete, “Physico-Chemical Techniques to Treat Cocktail Wastewater from CETP;” Lambert Academic Publishing,2015. ISBN 3659709360 ISBN-13 9783659709364.

3. Jatin Wadia Anjali Khambete, “Electro-chemical Oxidation, Aerobic, Anaerobic, and Ultrasound for strong pesticide waste water treatment Lambert Academic Publishing, 2015. ISBN- 13: 978-3-659-70889-3 ISBN- 10: 3659708895 4 EAN: 978365970889 4.

4. Khambete A.K. and Ishan shah, “ Electrochemical oxidation: New approach for wastewater treatment”; LAP Lambert Academic ,Publishing,ISBN 978-3- 8465-3285-0, 120 Pages.
5. Khambete A.K.; Laboratory Manual For Environmental Engineering Lab (M.Tech). SVNIT Student store.
6. Khambete A.K ; Mayur Paphalkar Proceeding of Inter National Conference, Novel Concept For Waste Water Treatment By E-Ionization", pp. 169- 170 ;1 st International Science Congress ISC-2011 , Maharaja Ranjit Singh College of Professional Sciences, held at Indore Madhya Pradesh on 24th - 25th December 2011 ,Souvenir,Science And Technology For Sustainable Development . ISCA-ISC- 2011-8EnvS-50 , ISSN 2249- 9261 Print Version.s
7. Khambete A. K., and Mayuri Mistry Proceeding of Inter National conference, “Extraction of Biodiesel from Waste Vegetable Oil”pp.419-422. International Conference on Advances in Civil Engineering (ACE-2011),K L University, Vijayawada, A.P., INDI ACE-2011,21-23, October 2011.
8. Partha Tripathy; and Khambete A. K.; Chauhan Krupesh C.; “Title of Contribution: \*\*Citizen Engagement in Project Selection, Prioritization, Customization & Implementation in Indian Smart Cities: Bhubaneswar & Surat, India”; Title of Book: E-Democracy for Smart Cities Editor(s) name(s): Prof. T.M. Vinod Kumar\* ISBN 978-981-10-4034-4; - Published by Springer, Singapore -- DOI : 10.1007/978-981- 10-4035-1 -- the book details are in : <http://www.springer.com/in/book/9789811040344> Jun,2017.