

BIODATA



A. Name : DR. KHAMBE SUHASRAO DNYANDEO

B. Birth Date : 3rd Sept. 1963

C. Nationality : Indian

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E. Qualification :

- H.S.C. - Poona Divisional Board - 1978
- B.Sc.(Micro) - Shivaji University - 1981
- M.Sc.(Micro) - University of Poona - 1986
- Ph.D.(Micro) - Shivaji University - 1994
- AGMARK approved analyst - 1996
- F.D.A. approved analyst for microbiological- 1999
Testing & quality control
- Recognised by Shivaji University, Kolhapur- 2003
As **Post-Graduate Teacher in Microbiology**
- Member District Environmental Committee - 2003 & 2004
- Recognised as **Research Guide in Microbiology** for
Ph.D. By Shivaji University, Kolhapur. -2007
**One Ph.D. student awarded the Degree from Shivaji
University, Research work of one student is in progress.**
- Member Board of Studies , Microbiology, Shivaji University
Kolhapur. (2010-2015)

F. Membership :

1. A member of Association of Microbiologist **India**, (AMI).
2. A active member of Marathi Vidnyan Mahasangha, Pune.
3. A member of World Wide Fund for Nature.
4. A member of Association of Food Scientists and Technologists, India
5. A life member and Secretary of Marathi Vidnyan Prabodini, Sangli 1987
6. Member of W.W.F. (India)
7. Life member, Nisarga Mitra Sanstha, Sangli
8. Member Rashtriya Bal Vidnyan Parishad, New Delhi.
9. Founder Member, Vrukshaveli ani Paryavaran Sanrakshan Sanstha, Sangli.
10. Member, Institute of Health & Vocational Education, Miraj.
11. Member Sangli District Environmental Committee.
12. Member Mahatma Phule Library, Sangli
13. Life Member Microbiologists Society
14. Board Member, Nature Foundation, Sangli

G. Previous Appointments:

1. As a Blood Bank Technician at Shirgaonkar Blood Bank, Sangli
2. As a Lab Technician at a Shobhana Pathological Laboratory, Sangli.
3. As a Cane Analyser at Shetkari Sahakari Sakhar Karkhana Ltd., Sangli.
4. As a Research Assistant at Maharashtra Association for Cultivation in Science, (M.A.C.S.) Pune (present name Agharkar Research Institute) from 9th Aug 82 to 31st September, 1983.
5. As a Lab-Incharge at Water and Waste Water Research Centre, Pune from October 1983 to June 1984.
6. As a Scientific Officer at Environmental Protection Research Foundation, Sangli from June 1986 to March 1993.
7. Partner Computer Training and Service centre "SUYASH COMPUTERS" in partnership with Mrs. Shubhangi Suresh Ranade 1989 to 1993.
7. As Chief Development Officer at Environmental Protection Research Foundation, Sangli from March 1993 to October 1995.
8. ASSOCIATE PROFESSOR, DEPARTMENT OF MICROBIOLOGY, AT MIRAJ MAHAVIDYALAY, MIRAJ. Since August, 1996. (Up to 2016 work as Head of Department) up to 2017.
9. Director Nikhil Analytical & Research Pvt. Ltd., From 14/06/2012
10. Director CISTED (Centre for Innovation in Science, Technology and Entrepreneurship)

H. Consultancy Appointments :

1. Working as Microbiological Consultant for various Food processing industries and & Pharmaceutical laboratories.
2. As a Hon Director, Food, Feed, Water, Soil, Fuel and Fertilizer testing and Environmental monitoring Laboratory at Sangli "Nikhil Analytical & Research Laboratory" from October, 1995
3. Consultancy work for microbiological quality control of liquid glucose and pollution control at M/S Sahyadri Starch and Industries Pvt. Ltd., MIDC Miraj. since 1995
4. As Environmental Consultant for 4 foundries, 6 Sugar factories, and 15 other units.
5. Prepared feasibility report for textile mills, dairies, raisin processing units, household waste water etc for Effluent Treatment Plant in Sangli, Kolhapur, Satara, Solapur, Pune, Jalgaon, Hyderabad and Nagar districts, Sangli, Jaysingpur and Ichalkaranji.
6. Worked as a consultant for Common Effluent Treatment Plant at MIDC, Miraj-Kupad, Sangli and M/S Akiwate Industrial Estate, Jaysingpur.
7. AGMARK grading work of ground spices, edible oil, jaggery, for Thirty packers.
8. Quality Analysis of different food samples.
9. Prepared feasibility report for Earthworm Composting for textile mill waste, slaughter house waste, domestic waste, hotel waste etc..
10. Prepared and demonstrated Solid Waste Treatment by Vermicomposting to Sangli, Miraj Kupwad Municipal Corporation, Sangli.

I. Research :

1. Successfully completed the Project on "Quality of Drinking water and incidence of intestinal diseases in rural area". Project funded by CASTFORD (DST).
2. Successfully completed detailed study of bacteriological and chemical characteristics of water from various overhead tanks of several apartments at Pune. This project was sponsored by Marathi Vidnyan Parishad, Pune.
3. M.Sc. dissertation on "Microbial Degradation of Cyanide".
4. Treatability studies for waste water emanating from Industrial Estate, Sugar Factory, Distillery, Textile mills, Electro- plating Industry, Pulp and Paper Mill
5. Completed five research projects funded by Department of Environment and One project funded by Dept. of Science and Technology, Govt. of India.
6. Successfully completed a research project on "Aerobic Composting of Spentwash and it's Environmental Impact Assessment".(DOEn)
7. Carried out Environmental Impact Assessment studies of sugar factories, pulp and paper mills and sulfuric acid plant. (Total 28 units)
8. Worked for Ph.D. Degree on the subject of "Role of microorganisms in the treatment of spentwash through aerobic composting" under the guidance of Dr. P.L. Patil.
9. Production of Plant Growth Hormones from Natural Products.
10. Production of Biofertilisers, biopesticides and microbial cultures for special purpose.
11. Development of low cost vermicompost plant design
12. Development of low cost rain water harvesting system
13. Developments in methods for Biodiesel production from Jatropha
14. Developed Low cost water purification system by ozonisation treatment.
15. Special bioculture for root zone development of crop
16. Treatment of chromium waste and recovery of metal.
17. Production of Biosurfactant from algae
18. Study of draught resistant active strains of Azotobacter.

J. Research Projects Handled

1. Characterisation studies of "Sugar factory effluent treatment". Rs. 50,000/-
2. Flocculation studies on treated pulp and paper mill effluent. Rs. 20,000/-
3. Colour removal of anaerobically treated spentwash. Rs. 10,000/-
4. Studies on anaerobic digestion using plastic media for spentwash treatment and methane gas recovery. Rs. 4 lacs by MoEF.
5. Spentwash composting by aerobic process. Rs. 3.8 lacs MoEF
6. Secondary treatment of distillery effluent.
7. Anaerobic digestion of black liquor.
8. Effect of spentwash compost on growth development and yield of different crops DST. Rs. 3.00 lacs.
9. Effect of solids concentration on anaerobic digestion methane gas production.
10. Methane gas recovery- Pilot Plant. DoEN Rs. 4 lacs
11. Upliftment of environmental conditions and waste land development in three selected villages around Sangli. DST Rs. 2.5 lacs

12. Studied pollution level in River Krishna, Bhogawati, Panchaganga and Warna.
13. Acetic acid production from spentwash. Rs. 10000/-
14. Control of aseptic conditions in Biscuit industry.
15. Minimum Inhibition Concentrations of some compounds used in Sugar industry for mill sanitation.
16. Microbial decomposition and earthworm compost from agricultural trash and kitchen waste.
17. Completed minor research project on "Development and commercial production of bio-pesticide for odour removal and household pest control" funded by UGC. Rs. 60000/-

K. Seminars/ Conferences attended:

Attended more than 30 seminars Training Programs and conferences. Participated And presented research papers in 4 international conferences. Organised 10 seminars on different subjects

L. Other :

1. Organised 13 training programs for industrial technologists on the topic of environmental quality analysis.
2. Given more than 50 popular lectures on various subjects on All India Radio.
3. Taken 20 lectures on environmental subjects at Institute of Environmental Sciences, Sangli.
4. Prepared 10 research projects on the topic of Environment.
5. Well conversant with Computer Languages, Development of software and Data processing.
6. During my working so far, responsible for Research activities in the projects funded by DNES, DST, DOEn and Private organisations. I was also responsible for activities of institute like scientific research, training programs, seminars, workshops, conferences, meetings etc.
7. Taken major active role in organising "Akhil Bharatiya Marathi Vidnyan Sanmelan-1993" at Sakharale.
8. Participated in Vidnyan jatha, Vidnyan mela, Environmental awareness campaigns etc.
9. Developed lesson plans for teachers of 5th to 9th std. on the subject of environmental protection awareness among children.
10. Organised Science Teacher's Workshop for discussion on the new syllabus of 9th and 10th Std. for Science and Mathematics.
11. Organised Science and Environmental exhibitions of Posters, working Models etc.
12. Given various lectures on Food analysis, Prevention of food adulteration, GrahakSaunrakshan etc.in colleges and high schools.

M. PUBLICATIONS/ EDITED:

1. Laboratory Manual on Environmental Quality Analysis. 1991
2. Souvenir of Akhil Bharatiya Marathi Vidnyan Sanmelan-1993.
3. Edited book "Nisarga Santulan Ani Sheti".

4. Souvenir of Environmental Protection Research Foundation, Sangli for the year 1994.
5. Lesson plans for teachers of 5th to 9th Std. on subject of Environmental Protection Awareness among Children.
6. Published : A Book in Marathi "Water Elixir of Life"
7. Worked as co-author of study books for B.Sc I, II and III of Shivaji University.
8. Published book on Environmental Quality Monitoring
9. Prepared and published a booklet in Marathi on "The Medicinal Plants in our environment"

N. PAPERS PUBLISHED/PRESENTED :

1. **Khambe, S.D.**, B.S. Rao and P.L. Patil. (1990). "Aerobic composting of spentwash. Proc. VIII Southern **Regional** Conference on Microbial inoculants", held at Pune. on 5-6 Feb. pp. 65-67.
2. **Khambe, S.D.**, S.S. Salunkhe, Miss S.D. Khambe, B. Subbarao. (1992). "Spentwash composting and its environmental impact assessment study". Proc. **National** seminar on Organic farming held at Pune, on 18-19 April. pp. 29-31.
3. Rao, B.S., S.V. Ranade, J.M. Gadgil and **S.D. Khambe** 1989. Aerobic composting of spentwash. Paper presented at **National** Symp. on treatment options, Sugar-distillery-Paper allied waste waters, held at IIT, Pawai, Bombay, pp. 15-20.
4. Rao, B. S., S. V. Ranade, J. M. Gadgil, **S. D. Khambe** and B. P. Patil. (1990). "Performance evaluation of spentwash composting using forced aeration". Proc. 40th DSTA Annl. Conv., held at Pune, on 8-10 Sept. pp. B79-B93.
5. Rao, B.S., S.V.Ranade, J.M. Gadgil and **S.D. Khambe** (1993). Innovative method of waste recycling in agrobased industries with a case study of sugar industry. Proc. 42nd DSTA Annl. Conv., held at Pune, on 6-8 Sept. pp.1-6.
6. Rao, B.S. and **S.D. Khambe**. (1994). Wealth From Waste - Fertilizer from spentwash. Paper presented at **International** workshop on "Transfer of Environmental Friendly Technologies" held at APCTT, New Delhi, during 6-14th April, 1994.
7. **Khambe S.D.** (1998). Historical development of composting process for liquid waste. Selected topics in biotechnology. Pama Publications. 1st Edⁿ pp. 54-69.
8. **Khambe S.D.**, A.M. Deshmukh & M.V. Kulkarni (1998), Vermicomposting of kitchen waste - a case study. Bio-fertilizers and Bio-pesticides, Technoscience publ., 1st Edn pp. 200-203
9. **Khambe S.D.** (1998). Role of Micro-organisms in the treatment of spentwash through aerobic composting". Paper presented at **International** Conference on Environment and Agriculture, Nov. 1-3, 1998 at Kathmandu, Nepal.
10. **Khambe S.D.** (2001), CO₂ evolution, O₂ Consumption and Respiratory Quotient of spentwash composting by different microorganisms. Environmental pollution and Management of Waste waters by Microbial Techniques, ABD Publ. 1st Edn. Pp. 174-180.
11. Bamane S.R. & **S.D. Khambe** (2003) Effect of Pesticides used for Grape Crop on Soil Enzymes and Micro-organisms. J. Micro. World 5(1), pp. 23-30 ISSN-0972-1487.

12. Bamane S.R. & **S.D. Khambe** (2003), Studies of Trace Metals in traffic soils for Sangli Region., J. of Industrial Pollution Control, , Vol. 19(1) pp. 89-96, I.S.S.N 0970-2083
13. **Khambe S.D.**, S.R. Bamane (2003), "Waste Reduction at Source and Organic Waste Treatment from Hotels by Vermicomposting" Emerging Biotechnological Methods in Industrial Waste Management; Proceedings of National Workshop pp. 67-74.
14. **Khambe S.D.**, S.R. Bamane (2003), "Organic Waste Treatment from Hotels through Vermicomposting", J. of Industrial Pollution Control, 19(2) pp. 289-294 I.S.S.N 0970-2083.
15. Bamane S.R., C.A. Shinde and **S.D. Khambe** (2003), "Vermiculture Biotechnology, Expert System for Hotel Waste Management" Paper presented at 23rd annual session of the Academy of Environmental Biology and national Symposium on "Recent trends in Biology and Biotechnology" Proceedings pp. 251.
16. Bamane S.R., P.K. Pawar and **Khambe S.D.** (2004), "Vermiculture Biotechnology". An expert system for Hotel Waste management, India. J. Environ. & Ecoplan 8(1) pp. 193-196.
17. **Khambe S.D.**, (2008), "Treatment of waste water from corn starch industry" Presented at **national** seminar on Advances in pollution treatment technology organised by DR. BAMU, Aurangabad on 26th & 27th Feb, 2008.
18. Ghodake V.P., S.A. Patil, P.P. Pattekari, P.A. Dhumal and **S.D. Khambe** (2008), "Detection and optimization of Indole Acetic Acid (IAA) production from *Rhizobium mililoti*. Asian Jr. of Microbiol. Bitech. Env. Sc. Vol 10 No(1):2008:147-150.
19. **Khambe S.D.** (2010) "Use of accelerated vermitechnology for household solid waste treatment"; Presented a research paper in **International** Conference at Bangkok (Thialand) organised by Dnyandeep Research Foundation in collaboration with Shivaji University on 23rd to 30th Jan 2010.
20. **Khambe S.D.** (2010) "Hotel waste management by biocomposting" Paper presented in **International** Conference at Dubai. 16th to 24th Jan, 2011.
21. H.V.Deshmukh, R.R.Kumbhar, **Khambe S.D.** (2012), "Screening Of Some Common Road Side And Social Forestry plants for their potential of biogas production" Paper presented in Indo-Bhutan International Seminar Proceedings Advances in Environmental Sciences (AES 2012) 11-12 May, 2012 in Bhutan.
22. **Khambe S.D.** (2012) "Use of plastic media over stone media as biofilter for waste water treatment" Paper presented at **international** conference on "Sustainable water resource development and management" organized by Department of Environmental Science, Shivaji University, Kolhapur on 20th Dec., 2012..
23. **Khambe S.D.** (2013), "Biomethination of continuous process distillery waste (spentwash) by continuous stirring digester. Paper presented at **National** seminar on recent advances in life science" organized by Kasturbai Walchand College, Sangli on 3rd Jan., 2013.
24. Jangam P.V. **Khambe S.D.** (2013), "Development of Bioherbicide for weeds of *Convolvulaceae* family Presented paper by poster in **National** seminar on Importance of applied microbiology for globe protection organized by Yashwantrao Chavan Institute of Science, Satara.on 11th &12th Jan., 13.
25. Pardeshi (Sonar), **Khambe S.D.**, Gaikwad S.B. (2013) "Rainwater harvesting A case Study" A paper presented in **State** level seminar on Water Conservation in

- drought prone area in Maharashtra organized by R.R. College, Sawalaj on 24th Jan. 2013.
26. **Khambe S.D.** (2013) "Consultancy services, Methodical accreditation by NAAC " paper presented at the national conference Role of Research Consultancy & Extension in Higher education state level Conference, organized by Padmabhushan Dr. Vasantdada Patil Mahavidyalay, Tasgaon.
 27. **Khambe S.D.**, (2014) "Bio-future" Paper presented at National Conference in Recent advanced techniques in applied microbiology at Karad
 28. **Khambe S.D.** (2014) "Advances in Agriculture Microbiology" presented a paper in UGC sponsored State level conference titled Recent advanced techniques in applied microbiology at Rajaram College, Kolhapur.
 29. **Khambe S.D. (2014)** "Individual building scale – Residential Household Building, Sangli a case study" City Decentralised Wastewater Treatment and Reuse Publ. by Centre for Science and Environment, New Delhi.
 30. Londhe M.A., **Khambe S.D.**, Govindwar S.P. (2014) "Isolation, Preliminary Screening and Process Optimization for Production of Surface Active Agent from *Chlorella Pyrenoidosa* by Non-Disruptive Method International Journal of Science Research Volume : 3, Issue : 6, June 2014 • ISSN No 2277 – 8179
 31. Londhe M.A., **Khambe S.D.**, Govindwar S.P. (2015), "Structural Characterization of Glycolipid Synthesized from *Chlorella Pyrenoidosa* NCIM 2738 by FT-IR and GC-MS and Its Effect on Fungal Spore Germination" The international Journal of Science & Technology, ISSN 2321-919X. Impact factor 1.002 International July, 2015 Vol. 3, Issue 7 pp. 39-42 ICV 75.46 (Index Copernicus Value).

O. FEASIBILITY REPORTS, OPERATION & MAINTENANCE FOR ETP :

1. Biscuit production plant
2. Chocolate production plant
3. Common Effluent treatment plant of industrial estate & MIDC.
4. Dairy industry
5. Distillery
6. Engineering units
7. Glucose production unit
8. Hospital Waste Management
9. Oil Extraction industry
10. Pharmaceutical units
11. Starch Industry
12. Sugar factory
13. Sulphuric acid production units
14. Textile mills
15. Hotels, Hospitals, Households, Housing complex, Apartments.

All E.T.P. plants scientifically based on the characterization and treatability studies with low budget and no energy (Gravity flow) including detailed engineering and drawings.

P. ENVIRONMENTAL AUDITING

1. Sugar Industry
2. Distillery
3. Acetic anhydride

4. Acetone
5. Sulphuric acid plant
6. Phosphate fertiliser plant
7. Pulp and Paper mill
8. Starch and Liquid glucose industry
9. Co-generation / Thermal power plant
10. Textile industry
11. Confectionary industry
12. Pharmaceutical industry
13. Foundry
14. Textile

Q. ENVIRONMENTAL CLEARANCE OBTAINED FROM GOVT. FOR :

1. Sugar factory 3 Nos.
2. Co-generation project 12.5 MW, 16 MW, 15 MW, 22MW.
3. Pulp & Paper Mill 4 No.
4. Expansion of Sugar Factory 4 No.
5. Foundry 2 No.
6. Expansion of Sugar factory from 10000 TCD to 18000 TCD , cogeneration from 44 MW To 62 MW & distillery from 75 KLPD to 150KLPD (Project in hand)

R. ENVIRONMENTAL STATEMENT REPORTS:

Prepared and submitted 9 Environmental Statement Reports of Sangli-Miraj-Kupwad Municipal corporation from 2003 every year.

Prepared and submitted ESR of 20 industries every year since 2001.

S. CITY SANITATION PLAN :

Prepared and submitted to central government the city sanitation plan of Sangli-Miraj-Kupwad Municipal corporation for the budgetary provision of Rs. 856 crores.

T. ENVIRONMENTAL IMPAT ASSESSMENT REPORTS PEPAED:

Sr.	Name of Industry	Project Name	Year
1.	Rahuri Pulp & Paper Mill Ltd, Shri Shivajinagar, Rahuri, Ahamadnagar	25 TPD Kraft Paper	1988
2.	Nath Pulp & Paper Mills Ltd, Nathnagar, Tal. Paithan, Dist. Aurangabaad	40 TPD-100 TPD Kraft Paper	1990
3.	Bhogawati Sahakari Suta Girani Ltd, Washi, Dist. Kolhapur.	Sulfuric Acid 100 TPD, SSP 200 TPD	1990
4.	Rajaram S.S.K, Islampur.	Distillery Modernization 75 KLPD	1994
5.	Vasantdada Shetkari S.S.K. Ltd, Sangli.	12.5 MW Co-gen	1999
6.	Rajarambapu Patil S.S.K. Ltd, Wategaon, Tal. Walwa, Dist. Sangli.	16 MW Co-gen Project	2000
7.	Mohan S.S.K. Ltd, Mhaisal.	New 2500 TCD Sugar Factory	2000
8.	Mahadik Sugar, Kolhapur.	Expansion of 2500 to 5000 TCD	2001
9.	Bansi Pulp & Paper Mills Pvt. Ltd, Samdoli Kasabe Digraj, Tal. Miraj, Dist. Sangli.	Expansion of 20 TPD to 30 TPD	2002

10.	Yeshawanta S.S.K. Ltd, Khanpur, Dist. Sangli.	Distillery 30 KLPD	2002
11.	Rajarambapu Patil S.S.K, Ltd, Wategaon, Tal. Walwa, Dist. Sangli.	Expansion of 1000 TCD Sugarcane to 2500 TCD	2002
12.	Shri Tatyasaheb Kore Warana S.S.K. Ltd, Warananagar, Tal. Panhala, Dist. Kolhapur.	Expansion of 4000 TCD Sugar Factory to 5000 TCD	2004
13.	Ghatage Patil Industries Pvt. Ltd, Uchagaon, Kolhapur.	Expansion of 1500 MTM Foundry to 5000 MTM.	2006
14.	Sonhira S.S.K. Ltd, Mohanraonagar, Wangi, Tal. Kadegaon, Dist. Sangli.	22 MW Co-gen Project	2008
15.	Shri Gurudatta Sugars Ltd, Takliwadi, Tal. Shirol, Dist. Kolhapur.	15 MW Co-gen Project	2008
16.	Wakurde Lift Irrigation Scheme, Peth Colony, Islampur, Dist. Sangli.	Warana Cannel Division	2008
17.	Vishwasrao Naik S.S.K. Ltd, Yashwantnagar, Tal. Shirala, Dist. Sangli.	Distillery 30 KLPD to 50 KLPD	2008
18.	Sinewave Biomass Power Pvt. Ltd, Kolhapur.	7.5 MW Co-gen from Biomass	2008
19.	Biltube Industries (Plant II) Gat No. 1172 to 1178, Kodoli, Tal. Panhala, Dist. Kolhapur.	Core Board (4000MTM) & Cone Board (1500MTM) Self Power Generation (6MW) Plant	2010
20.	Tulsi Casting & Machining Ltd, Sangli.	Expansion of Castings from 1500 MTM to 3500 MTM	2010
21.	Udigiri Sugars & Power Ltd, Bamani, Tal. Khanapur, Dist. Sangli.	2500 TCD & 14 MW Co-gen	2011
22.	Kranti S.S.K. Ltd, Kundal, Tal. Palus, Dist. Sangli.	Expansion of Sugar Factory from 2500 TCD to 4000 TCD, Co-gen 14 MW to 19.70 MW	2011
23.	Monomer Chemical Pvt. Ltd, (Unit II), Ambarnath, Dist. Thane.	2100 MTA Pharmaceutical	2011
24.	Roha Dyechem Pvt. Ltd, Dhatav, Tal. Roha, Dist, Raigad.	790 MTM Pharmaceutical	2011
25.	Merck Ltd, Goa.	Expansion capacity 123 MTM	2011
26.	Ugar Sugars Ltd., Ugar Khurd, Tal. Belgaum, Dist. Belgaum.	Expansion of Sugar Factory from 10000 TCD to 20000TCD, Co-gen 44MW to 62 MW, Distillery 75 KLPD to 150 KLPD.	2012
27.	Stone mines	Pophali, Thane and Sangli 8 No	2012