

## BIO-DATA



1. **Name:** Dr. Arvind Kumar Mungray
2. **Date of Birth:** 08<sup>th</sup> July, 1978
3. **Designation:** Assistant Professor
4. **Highest Qualifications:** Ph.D.
5. **Status:** Married

6. **Research Interest:** Wastewater treatment (biological), anaerobic treatment, sludge treatment, upflow anaerobic sludge blanket (UASB) reactor, Bio gas, Microbial fuel cell (MFC), nanotechnology.

7. **Degree Obtained:**

University	Degree	Year	Field of Specialization
H.B.T.I. Kanpur/ SSJM Univ. Kanpur	B. Tech.	2000	Chemical Engineering
B.H.U. Varanasi	M. Tech.	2002	Chemical Engineering
I.I.T. Roorkee	Ph.D.	2007	Environmental Engineering

**Ph.D. Thesis Title:** Anionic surfactants in sewage: Fate in UASB Process

8. **Employment Record:**

University	Designation	Period
S.V.N.I.T SURAT	Lecturer, Assistant Professor	15 JAN. 2007 TO TILL DATE

9. **Sponsored research projects: (6 Research Projects)**

- (i) R & D Grant of the Institute (Rs. 4.14 Lacs) for “*Evaluate the performance of tertiary treatment in a full scale up-flow anaerobic sludge blanket (UASB) based sewage treatment plant (STP)*”. (**Principal Investigator: Dr. A.K. Mungray**; Co-Investigator; Dr. S. R. Patel & Dr. Z. V. P. Murthy) Status: Completed; 2007-2008).
- (ii) R & D Grant of the Institute (Rs. 2.25 Lacs) for “*Sonocrystallization for the recovery of valuable products from dairy waste stream*”. (Co-Investigator: **Dr. A.K. Mungray**; Principal Investigator: Dr. S.R. Patel), Status: Completed; 2007-2008).
- (iii) Naval Research Board (NRB), Defence Research and Development Organisation (DRDO) Bhavan, New Delhi, India (23.198 Lacs) for “*Application of **Benthic Microbial Fuel Cell (BMFC)** for powering Naval Sensors*”. (**Principal Investigator: Dr. A.K. Mungray**; Co-Investigator; Dr. Alka A. Mungray & Dr. K. Suresh Kumar) Status: Sanctioned for three years, Ongoing from 2014).

- (iv) R & D project grant of the Institute for UG student (Rs. 50,000/- ) for “*Synthesis of Nanoparticles to enhance the performance of the microbial fuel cell.*” Name of the Student: Nishant Gupta & Saumya Diveti. Supervisors: Dr. A. K. Mungray & Dr. K. Suresh Kumar (status: Ongoing).
- (v) R & D TEQIP Project Grant of the Institute for Assistant Professors (Rs. 9.80 Lacs) for “*Treatment of Combined Textile and Municipal Wastewater by Bio-Electrochemical Processes using Novel Cross-linked Microbial Fuel Cell (CMFC)*”. (Principal Investigator: Dr. A. K. Mungray; Status: ongoing).
- (vi) Mentoring a Department of Science and Technology (DST), Govt. of India, New Delhi, project (Rs. 17.05 Lacs) under Women Scientist Scheme-A (WOS-A) entitled “**Study of Microbial Consortia in Microbial Fuel Cell**” having project No: SR/WOS-A/ET-1054/2014(G). to Mrs. Ambika Srinivas Arkatkar, Grant date: 28-7-15. Duration: Three years.

#### 10. Publications (International/National/Journals/Conferences): (Total No. = 69)

##### (i) Papers published in International Journals: 27

1. **Mungray, A.K.** and Kumar, P. Degradation of anionic surfactants during drying of UASBR sludges on sand drying beds. **Journal of Environmental Management**, 88(4), 2008, 995-1002. (Impact factor: 2009: 2.367)
2. **Mungray, A.K.** and Kumar, P. Anionic surfactants in treated sewage and sludges: Risk assessment to aquatic and terrestrial environments. **Bioresource Technology**, 99(8), 2008, 2919-2929. (Impact factor: 2008: 4.453)
3. **Mungray, A.K.** and Kumar, P. Occurrence of anionic surfactants in treated sewage: Risk assessment to aquatic environments. **Journal of hazardous materials**. 160(2-3), 2008, 362-370. (Impact factor: 2009: 4.144)
4. **Mungray, A.K.** and Kumar, P. Fate of anionic surfactants in 38 ML/d UASB based sewage treatment Plant. **Journal of Environmental Engineering, American Society of Civil Engineering (ASCE)** 134 (12), 2008, 1014-1022. (Impact factor 2008: 1.244)
5. **Mungray, A.K.** and Kumar, P. Tracing anionic surfactants through up-flow anaerobic sludge blanket based sewage treatment plants: Mass balance. **Process Safety and Environmental Protection**. 87 (4), 2009, 254-260. (Impact factor: 2009: 1.124)
6. **Mungray, A.K.** and Kumar, P. Fate of Anionic Surfactants in the Environment: A Review. **International Biodeterioration and Biodegradation**. 63(8), 2009, 981-987. (Impact factor: 2009: 2.252)
7. Patel, K., Sarve, A., **Mungray A. K.** Hydrodynamics of a Bench Scale Aerated Post Treatment Unit for up-flow anaerobic sludge blanket Reactor. **Chemical Product and Process Modeling**. 4(1), 2009, Article 40.
8. Mungray, A.K., Murthy, Z.V.P., Tirpude, A.J. Post Treatment of Up-Flow Anaerobic Sludge Blanket Based Sewage Treatment Plant Effluents: A Review. **Desalination and Water Treatment**, 22 (2010) 220–237. (Impact factor: 2010: 0.852)

9. Dixit, A., **Mungray, A. K.**, Chakraborty, M. Photochemical oxidation of phenol and chlorophenol by UV/H<sub>2</sub>O<sub>2</sub>/TiO<sub>2</sub> process: A Kinetic Study. **International Journal of Chemical Engineering and applications**. 1(3) 2010. **ISSN: 2010-0221.**
10. **Mungray, A.K.** and Patel K. Coliforms Removal in 43 ML d<sup>-1</sup> and 100 ML d<sup>-1</sup> UASB + ASP Based Systems. **International Biodeterioration and Biodegradation**, **65**, 2011, 23-28. **(Impact factor: 2009: 2.252)**
11. **Mungray, A.K.** and Patel K. Combination of up-flow anaerobic sludge blanket reactor and a novel cascade sponge reactor for sewage treatment. **Water Science and Technology**, 63 (6), 1255-1264, 2011. **(Impact factor: 2011: 1.112)**
12. Dixit A, Tirpude A. J., **Mungray A. K.** , Chakraborty M. Degradation of 2, 4 DCP by sequential biological – advanced oxidation process using UASB and UV/TiO<sub>2</sub>/H<sub>2</sub>O<sub>2</sub>. **Desalination**, 272, 2011, 265-269. **(Impact Factor: 2012: 2.590)**
13. Shilpa, A., **Mungray, A. K.**, Chakraborty, M. Modelling and optimization of process parameters by Taguchi method: Degradation of phenolic compounds by UV/H<sub>2</sub>O<sub>2</sub>/TiO<sub>2</sub> process. **Chemical Product and Process Modeling**. Article 18, 6(1) (2011) 1-17.
14. Mungray, A. A., **Mungray, A. K.**, Kulkarni, Removal of Mercury from wastewater using micellar enhanced ultrafiltration. **Research Journal of Chemistry and Environment**. **15(4)**, 2011. **(Impact Factor: 2009: 0.623)**.
15. Mungray, A. A., **Mungray, A. K.**, Kulkarni, Removal of heavy metals from wastewater using MEUF technique: A review. **Central European Journal of Chemistry**. 10(1), 27-48, 2012. **(Impact Factor: 2012: 1.167)**.
16. Dixit, A., **Mungray, A. K.**, Chakraborty, M. Photochemical oxidation of phenolic wastewaters and its kinetic study. **Desalination and Water Treatment**. 40 (2012) 56–62). **(Impact factor: 2012: 0.852)**
17. Singala, K. J., Mungray, A. A., **Mungray, A. K.** Degradation Behavior of Polypropylene-Organically Modified Clay Nanocomposites **Industrial & Engineering Chemistry Research**. 2012, 51 (32), 10557–10564 (Publisher: ACS Publications) **(Impact factor: 2011: 2.237)**
18. Rikame, S. S., Mungray, A. A., **Mungray, A. K.** Electricity generation from acidogenic food waste leachate using dual chamber mediator less microbial fuel cell. **International Biodeterioration and Biodegradation**. **75**, 2012, 131-137. **(Impact factor: 2009: 2.252)**
19. **Mungray, A.K.** and Murthy, Z.V.P. Post treatment of up-flow anaerobic sludge blanket reactor effluents in activated sludge process based system for anionic surfactants. **Water and Environment Journal**. 28(2014) 84-94. **(Impact factor: 2011: 0.792)**
20. Paliwal, N. R., and **Mungray, A.K.** Ultrasound assisted alkaline hydrolysis of poly (ethylene terephthalate) in presence of phase transfer catalyst. **Polymer Degradation and Stability**. 98 (2013) 2094- 2101. **(Impact factor: 2011: 2.770)**

21. Yadav, T., Mungray, A.A., and **Mungray, A. K.** Fabricated Nanoparticles: Current Status and Potential Phyto-toxic Threats, A Review. *Reviews of Environmental Contamination and Toxicology*. 230(2014).  
(Impact factor: 2009: 2.477)
22. Saner, A. B., **Mungray, A.K.**, and Mistry, N. J. Performance of a full scale up-flow anaerobic sludge blanket reactor for the treating distillery wastewater. *Research Journal of Chemistry and Environment*. 18:(5)(2014).  
(Impact factor: 2014: 0.636)
23. Saner, A. B., **Mungray, A.K.**, Mistry, N. J. Treatment of distillery wastewater in an upflow anaerobic sludge blanket (UASB) reactor. **Desalination and Water Treatment**, (online) 2015.  
(Impact factor: 2010: 0.987)
24. Pushker P., **Mungray, A.K.** Textile and Domestic Wastewater Treatment by Novel Cross-linked Microbial Fuel Cell (CMFC) Reactor. **Desalination and Water Treatment**, (Accepted) 2015.  
(Impact factor: 2014: 1.173)
25. Yadav, T., **Mungray, A.A.**, **Mungray, A. K.** Effect of Multi-walled Carbon Nanotubes on UASB Microbial Consortium. **Environmental Science and Pollution Research**, (Accepted) 2015.  
(Impact factor: 2014: 2.757)
26. Yadav, T., **Mungray, A.A.**, **Mungray, A. K.** A comparative analysis of a TiO<sub>2</sub> nanoparticle dispersion in various biological extracts. **RSC Advances**, 2015, 5, 64421-64432.  
(Impact factor: 2015: 3.840)
27. Yadav, T., **Mungray, A.A.**, **Mungray, A. K.** Dispersion of multiwalled carbon nanotubes in Acacia extract and it's utility as an antimicrobial agent A comparative analysis of a TiO<sub>2</sub> nanoparticle dispersion in various biological extracts. **RSC Advances**, 2015, 5, 64421-64432.

(ii) **Paper published in National Journals (2)**

1. Patel, K, **Mungray, A. K.**, Murthy, Z.V.P. Removal of anionic surfactants in 100 ML/D UASB reactor with diffused aeration based post treatment system. *Journal of Environmental Research and Development*. 3 (3) 2009, 796-802.
2. Shilpa, A., **Mungray, A. K.**, Chakraborty, M. Sonochemical degradation of p-chlorophenol assisted by H<sub>2</sub>O<sub>2</sub> and Ag-TiO<sub>2</sub>/TiO<sub>2</sub> catalyst. **Indian Journal of Chemical Technology**, 2015, 22, 73-77.

(iii) **Papers published/presented in International Conference/Seminar: 34**

1. **Mungray, A.K.** and Kumar, P. Fate of anionic surfactants in sewage treatment. Jordan International Chemical Engineering Conference –V, JICEC-V 2005. September 11- 17, 2005, Amman, Jordan.

2. **Mungray, A.K.** and Kumar, P. The concentration and fate of anionic surfactants in UASB and ASP based STPs: Assessment of relative impacts on aquatic environment. International symposium on recent advances in water resource development and management, WRD&M, November 23 – 25, 2005, IIT Roorkee, India.
3. **Mungray, A.K.** and Kumar, P. Fate of anionic surfactants in UASB and Oxidation ponds based STPs. Chemical Engineering conference, CHEMCON, held in December 14-17, 2005 at IIT Delhi, India.
4. **Mungray, A.K.** and Kumar, P. Fate of anionic surfactants in UASB based STPs: A comparison with activated sludge plant. International congress of Chemistry and Environment, December 24-26, 2005, Indore, India.
5. **Mungray, A.K.** and Kumar, P. Treatment of detergents and phosphorous in UASB based sewage treatment plants. International interdisciplinary conference on sustainable technologies for environmental protection, January 7-9, 2006. Coimbatore, India.
6. Hussain, A., **Mungray, A.K.**, Kumar, P., Mehrotra, I. Anaerobic biotransformation of Phenol: Effect of microbial population and nitrogen. International interdisciplinary conference on sustainable technologies for environmental protection, January 7-9, 2006. Coimbatore, India.
7. **Mungray, A.K.** and Hussain, A. Absorption of Sulfur Dioxide in Aqueous Sodium carbonate solution. International conference on Mesoscale processes in atmosphere, ocean and environmental systems, February 14 – 17, 2006, IIT Delhi, India.
8. Hussain, A. and **Mungray, A.K.** Ambient Air Quality Monitoring of Aligarh City and its Health Effect. International conference on Mesoscale processes in atmosphere, ocean and environmental systems, February 14 – 17, 2006, IIT Delhi, India.
9. Gaule, H., Gupta, A. and **Mungray, A.K.** Hazards and Management of E-Waste: A Review. International Conference on E-Waste Management in India A Sustainable Solution, May 18, 2007, Mumbai, India.
10. Konakala, P., Patel, S.R., **Mungray, A.K.** and Murthy, Z.V.P. Treatment of anaerobic reactor effluents: A comparative approach. International Conference on “Environmental Management: Scenario and Strategies to 2020” held in the Department of Chemical Engineering, Ujjain Engineering College, Ujjain (M.P.), Dec. 26-27, 2007.
11. Patel, S.R., Jayant, M.B. John, J.V., **Mungray, A.K.** and Murthy, Z.V.P. Sonocrystallization as a method for the treatment of dairy effluents. International Conference on “Environmental Management: Scenario and Strategies to 2020” held in the Department of Chemical Engineering, Ujjain Engineering College, Ujjain (M.P.), Dec. 26-27, 2007.
12. Gaule, H., Gupta, A. and **Mungray, A.K.**, Water Reduce, Reuse and Recycle: A Review. CHEMCON 2007, Kolkata, 27-30 December, 2007
13. Bajpai, A., Jindal, A., Mungray, A. K., Phytoremediation, An effective technology for wastewater treatment: A review. CHEMCON 2007, Kolkata, 27-30 December, 2007.

14. Khushboo Patel, A. K. Mungray, Z.V.P. Murthy, Removal of anionic surfactants in 100 ML/D UASB reactor with diffused aeration based post treatment system. International Congress of Environmental Research (ICER-08), 18-20 December, 2008 BITS Pilani Goa Campus.
15. **Mungray, A.K.** and Kumar, P. Risk Assessment to the Environment Due to Anionic Surfactants in Treated Sewages and Dried Sludge's. Environmental & Water Resources Institute (EWRI) of the American Society of Civil Engineers (ASCE), World Environmental & Water Resources Congress 2009, May 17-21 in Kansas City, Missouri, USA.
16. Patel, K. and **Mungray, A. K.** Performance of 43 ML/d Up-flow Anaerobic Sludge Blanket Reactor with Activated Sludge Process as a Post treatment for Coliform removal. 4th International congress of Chemistry and Environment (ICCE-2009) at Thailand during 21-23 Jan 2010.
17. Dixit, A., **Mungray, A. K.**, Chakraborty, M. Photochemical oxidation of phenol and chlorophenol by UV/H<sub>2</sub>O<sub>2</sub>/TiO<sub>2</sub> process: A Kinetic Study. 2nd International Conference on Chemical, Biological and Environmental Engineering (ICBEE 2010) at Cairo, Egypt during 2-4 November, 2010.
18. Mungray, A. A., **Mungray, A. K.**, Kulkarni, S. V. Removal of Mercury from wastewater using micellar enhanced ultrafiltration. 5<sup>th</sup> International congress of Chemistry and Environment (ICCE 2011) at Malaysia during 27 – 29 May, 2011.
19. Biswas, S., **Mungray, A. K.**, Post treatment of UASB effluents by using slow sand filtration. 5<sup>th</sup> International congress of Chemistry and Environment (ICCE 2011) at Malaysia during 27 – 29 May, 2011.
20. **Mungray, A. K.**, Kumar, P. Removal of Anionic Surfactants in UASB and Polishing Pond Based Sewage Treatment Plants. International congress of Environmental Research (ICER 2011) at SVNIT Surat, India during 15-17 December, 2011.
21. **Mungray, A. K.**, Biswas, S. Fate of Up-Flow Anaerobic Sludge Blanket Reactor Effluents in Biologically Activated Carbon Filter. International congress of Environmental Research (ICER 2011) at SVNIT Surat, India during 15-17 December, 2011.
22. Mungray, A. A., **Mungray, A. K.**, Kulkarni, S. V. Removal of Heavy Metal from Wastewater Using Surfactant by Ultrafiltration. International congress of Environmental Research (ICER 2011) at SVNIT Surat, India during 15-17 December, 2011.
23. Mungray, A. A., Kanan, K.P., **Mungray, A. K.** Performance of Dynamic Membranes in Anaerobic Membrane Bioreactor: A Review. International congress of Environmental Research (ICER 2011) at SVNIT Surat, India during 15-17 December, 2011.
24. Paliwal, N., **Mungray, A. K.** Treatment of real textile and domestic wastewater in Up-flow anaerobic sludge blanket reactor. International conference on Sustainable technologies for energy and environment in process industries, CHEMCON 2012 at Department of Chemical Engineering, Dr. B. R. Ambedker National Institute of Technology Jalandhar during 27-30 December, 2012.

25. Kande, M. J., Pushkar, P., **Mungray, A. K.** Alkaline hydrolysis of Poly(ethylene terephthalate) using ultrasound. International conference on Sustainable technologies for energy and environment in process industries, CHEMCON 2012 at Department of Chemical Engineering, Dr. B. R. Ambedker National Institute of Technology Jalandhar during 27-30 December, 2012.
26. Yadav, T., Mungray, A. A., **Mungray, A. K.** Nanotoxicity in Microbial Population and its Utility in Pathogen Removal. 6<sup>th</sup> International congress of Chemistry and Environment (ICCE 2013) at Antwerp, Belgium during 8<sup>th</sup> - 10<sup>th</sup> July, 2013.
27. Kande, M., Pushkar, P., **Mungray, A. K.** Performance of Up-Flow Anaerobic Sludge Blanket (UASB) Reactor for Combined Textile and Domestic Wastewaters. 6<sup>th</sup> International congress of Chemistry and Environment (ICCE 2013) at Antwerp, Belgium during 8<sup>th</sup> -10<sup>th</sup> July, 2013.
28. Saner, A. B., **Mungray, A. K.**, Mistry, N. J. Performance evaluation of full-scale up-flow anaerobic sludge blanket reactor treating distillery spent wash. 6<sup>th</sup> International congress of Chemistry and Environment (ICCE 2013) at Antwerp, Belgium during 8<sup>th</sup> -10<sup>th</sup> July, 2013.
29. Dharmadhakari, S., Mungray, A. A., **Mungray, A. K.** Modification, characterization and application of proton Exchange Membrane in microbial Fuel Cell. International congress on Global Challenges: Sustainable wastewater treatment and resource recovery at Kathmandu, Nepal during 28<sup>th</sup> to 30<sup>th</sup> Oct. 2014.
30. Yadav, T., Mungray, A. A., **Mungray, A. K.** Modification, characterization and application of proton Exchange Membrane in microbial Fuel Cell. International congress on Global Challenges: Sustainable wastewater treatment and resource recovery at Kathmandu, Nepal during 28<sup>th</sup> to 30<sup>th</sup> Oct. 2014.
31. Thakre, V., and **Mungray, A. K.** Cross-Linked Microbial Fuel Cell For Real Textile And Municipal Wastewaters. International congress on Global Challenges: Sustainable wastewater treatment and resource recovery at Kathmandu, Nepal during 28<sup>th</sup> to 30<sup>th</sup> Oct. 2014.
32. **Pushker, P., and Mungray, A. K.**, Electrochemical impedance spectroscopy (EIS) for the nanoparticle coated membranes for microbial fuel cell. International Conference on Membrane based separations (MEMSEP 2015) at M.S. University Baroda during 21-25 March 2015.
33. Yadav, T., Mungray, A. A., and **Mungray, A. K.**, Application of nanoparticles for pathogen removal during waste water treatment. International Conference on Membrane based separations (MEMSEP 2015) at M.S. University Baroda during 21-25 March 2015.
34. Yadav, T., Mungray, A. A., and Mungray, A. K., Effect of Cosmetic Based Nanowaste on Sludge and Soil Microflora. International conference on Ecology of Soil Microorganisms 2015, from 29<sup>th</sup> Nov. 29 to 3<sup>rd</sup> Dec. 2015, Prague, Czech Republic

(iv) Papers published/presented in National Conference/Seminar: 6

1. Hussain, A., **Mungray, A.K.**, and Kumar, P. Air pollution and its impact on health. All India seminar on air pollution & health impacts, February 23-24, 2006, organized by The Institution of Engineers (India), IITR, India.
2. **Mungray, A. K.** Parikh, P. A. Performance of Monolith Bioreactors in Gas-Liquid-Solid Three-phase Systems: A Review. 23<sup>rd</sup> National convention of chemical Engineers, Them: Recent trends in Chemical Engineering” at the Institution of Engineers (India), Roorkee, organized by Chemical Engg. Deptt., Indian Institute of Technology (IITR) on 5-7 Oct. 2007.
3. Bajpai, A., Jindal, A., **Mungray, A. K.**, Phytoremediation, an option for tertiary treatment of sewage. National Conference on Sustainable Urban Environment: Issues and Management Strategies, 27-29 Feb. 08, Civil Engg. Deptt, SVNIT, Surat.
4. Prakash, K., **Mungray, A. K.** Murthy, Z.V.P. Performance of Up-Flow Anaerobic Sludge Blanket Reactor in India. National Conference on Sustainable Urban Environment: Issues and Management Strategies, 27-29 Feb. 08, Civil Engg. Deptt, SVNIT, Surat.
5. Kanan, K. P., Mungray, A. A., **Mungray, A. K.** Performance of Anaerobic Dynamic Membrane Bioreactor Treating Domestic Municipal Wastewater. Conference on Technological Advancement in Chemical and Environmental Engineering (TACEE-2012), 23-24 March 2012, Chemical Engineering Department, BITS Pilani, India.
6. Rikame, S. S., Mungray, A. A., **Mungray, A. K.** Power Generation from Food Waste Leachate in Microbial Fuel Cell. Conference on Technological Advancement in Chemical and Environmental Engineering (TACEE-2012), 23-24 March 2012, Chemical Engineering Department, BITS Pilani, India.

#### 11. Workshops/Summer Schools/ Winter schools/Short term Courses attended: (26)

1. Assistance in the **Short-term course** on Physical, Chemical and Biological Phenomena for WW treatment, sponsored by **CPCB** on November 16-20, 2005.
2. Attended workshop on **Special Assistance for Project Sustainability (SAPS)** study on **Yamuna Action Plan Phase-I** conducted by **NRCD**, Ministry of Environment & Forests in Delhi on 15<sup>th</sup> December 2005.
3. Participated in **Japan International Cooperation Agency (JICA)** sponsored training course on “**Basics of sewage treatment**” from 27<sup>th</sup> January to 1<sup>st</sup> February at IIT Roorkee.
4. Participated in the **Indo-Australian Workshop on “CFD Approach on fluid Flow, Heat and Mass Transfer”** and symposium on “**CFD Application in Multidisciplinary Areas**” from 12<sup>th</sup> -14<sup>th</sup> April, 2007 at IIT Roorkee, India.
5. Participated in the workshop on “**Opportunities in Catalysis and Adsorptive Separation**”, conducted by Chemical Engineering Department, S.V. National Institute of Technology, Surat, from 7<sup>th</sup> – 11<sup>th</sup> May, 2007.
6. Participated in a **Short Term course** on “**Hazardous Waste Management**”, conducted by Chemical Engineering Department, Indian Institute of Technology Roorkee, Roorkee, One week from 9<sup>th</sup> – 13<sup>th</sup> July, 2007.



7. Participated in **Short-Term Course “Faculty Induction Programme for newly recruited faculty members.”** One week from 15<sup>th</sup> January, 2008 SVNIT, Surat.
8. Participated in **Short-Term Course “Pedagogy & Research Methodology for newly recruited faculty members.”** One week from 3-8 May, 2009 SVNIT, Surat
9. Participated in **Short Term course “Sustainable Water and Waste Management Techniques”** conducted by the Civil Engineering Department, SVNIT, Surat, One week during 27-31 July, 2009.
10. Participated in **Short Term course “Advanced Instrumental Methods of Analysis (AIMA)”** conducted by the Chemical Engineering Department, SVNIT, Surat, One week during 24-28 August, 2009.
11. Participated in **Short Term course “Advances in Condensed matter Physics”** conducted by the Department of Applied Physics, SVNIT, Surat, One week during 31- 4 September, 2009.
12. Participated in the 3<sup>rd</sup> **INDO-GERMAN** workshop on **“Management of Water Supply and Wastewater System”** at IIT Bombay during 19-20 November 2009.
13. Attended **INDO-Australian** workshop on **“Recent Advances in Wastewater Treatment”** at Institute of Chemical Technology, Matunga, Mumbai during 16-17 December 2009.
14. Participated in a **Short-term course on “Recent developments and future trends of nanotechnology in modern science”**, conducted by Applied Chemistry Department, SVNIT, Surat, One week from 21<sup>st</sup> – 25<sup>th</sup> December, 2009.
15. Participated in two days national Workshop on **“Natural Energies Conservation and use”**, conducted by Hindi cell of SVNIT, Surat, from 29-30 September, 2011.
16. Participated in four day International training workshop on **“Environmental Statistics for professionals”** conducted jointly by IIT Bombay and TSEC from 27-30 December, 2011.
17. Participated in a one day Workshop on Six Sigma and Statistical analytical tools, Conducted by Department of Chemical Engineering, SVNIT, Surat, on 22<sup>nd</sup> March, 2013.
18. Participated in a one week **Short-term course on “Mathematical Statistics for Researchers, Engineers and Scientists (MSFRES)”**, conducted by Department of Applied Mathematics & Humanities, SVNIT, Surat, during 2<sup>nd</sup> – 6<sup>th</sup> September, 2013.
19. Participated in a one week Short-term course on **“Recent Trends in Nanomaterials Synthesis, Characterization and Applications”**, conducted by Department of Chemical Engineering, SVNIT, Surat, during 14<sup>th</sup> – 18<sup>th</sup> October, 2013.
20. Participated in a one week **Short-term course on “Nanoscale Integration, Fabrication and Characterization”**, conducted by Department of Electronics Engineering, SVNIT, Surat, during 21<sup>st</sup> – 25<sup>th</sup> October, 2013.
21. Participated in a one week **Short-term course on “Green Chemistry and Engineering: Towards a Sustainable Future”**, conducted by Department of Chemical Engineering, SVNIT, Surat, during 18<sup>th</sup> – 22<sup>th</sup> November, 2013.

22. Participated in a one day Workshop on Comsol Multiphysics Modelling, Conducted by Department of Chemical Engineering, SVNIT, Surat, on 6<sup>th</sup> December, 2013.
23. Participated in a one day TEQIP Sponsored Finishing School on Design of Experiment using the Taguchi method: An Overview, Conducted by Department of Chemical Engineering, SVNIT, Surat, on 25<sup>th</sup> April, 2015.
24. Participated in a one week TEQIP-II Sponsored STTP on Design of Experiment and Artificial Neural Network, Conducted by Department of Chemical Engineering, SVNIT, Surat, during 22 to 26<sup>th</sup> June, 2015.
25. Participated in a five day TEQIP Sponsored Summer course on Water and Wastewater treatment: Recent advances, Conducted by Department of Civil Engineering, IIT Roorkee, from July 21- to 25, 2015.
26. Participated in a one week TEQIP-II Sponsored STTP on Interfacial Engineering and Nanotechnology for Sustainable Environment, Conducted by Department of Chemical Engineering, SVNIT, Surat, during 10 to 14 August, 2015.

## 12 Memberships in professional bodies: (7)

- Life associate Member in **IICChE (Indian institute of chemical engineers) (LAM- 29862)**
- Life associate Member in “**The Institution of Engineers (India)**”. (AM-093702/1)
- Life Member in “**Indian Society of Technical Education**” (LM 52069)
- Life Member in “**Indian Water Resources Society**” (LM-07-6952)
- Life Member in “**Indian Environmental Association**” (LM-128)
- Fellow Membership (F.I.C.C.E.) in “**International Congress of Chemistry and Environment**” FW/A/5055
- Membership of the **International Water Association (IWA)** having membership number: **01036032**

## 13. International Recognition:

- Advisory Editorial Board Member of **International Journal of Environmental Sciences (ISSN: 2249-2127)**
- **Paper Reviewer in International Journals**
  - (i) Journal of Hazardous Material (Elsevier) (4)
  - (ii) Desalination and Water Treatment Science and Engineering (Desalination Publications International Science Services) (1)
  - (iii) Water Science and Technology (IWA, Elsevier) (1)
  - (iv) CLEAN –Soil, Air, Water (Wiley)
  - (v) Desalination (Elsevier) (3)
  - (vi) Environmental Technology, Taylor & Francis (2)
  - (vii) Environmental Progress and Sustainable Energy, Wiley Publications (1)

- (viii) Bioresource Technology, Elsevier (1)
- (ix) Marine Environmental Research, Elsevier (2)
- (x) Journal of the Taiwan Institute of Chemical Engineers Elsevier (1)
- (xi) Environmental Progress (1)
- (xii) Ecotoxicology and Environmental Safety Elsevier (2)
- (xiii) African Journal of Environmental Science and Technology (1)
- (xiv) Brazilian Journal of Chemical Engineering (1)
- (xv) Journal of the Taiwan Institute of Chemical Engineers, Elsevier (1)
- (xvi) Journal of Renewable and Sustainable Energy (1)
- (xvii) Desalination and Water Treatment (4)
- Biographical profile published in the **MARQUIS' Who's Who in the Science and Engineering**, 28th edition, 2011 (Published from New Jersey, U.S.A.).

#### 14. Event Organized:

Sr. No.	Name of Faculty Member	Name of the associated Faculty Members	Name of Programme	Dates of Programme
1.	Dr. Arvind Kumar Mungray (Co-Coordinator)	Dr. H. K. Raval (Coordinator)	Faculty Induction Programme for newly recruited faculty	One week from 15 <sup>th</sup> January, 2008
2.	Dr. Arvind Kumar Mungray (Coordinator)	Dr. N. J. Mistry (Coordinator) Dr. Z. V. P. Murthy (Co-coordinator) Dr. M. Chakraborty (Co-coordinator) Dr. Alka A. Mungray (Co-coordinator)	AICTE approved STTP on "Treatment and Disposal of Wastewaters"	One week from 5 <sup>th</sup> -9 <sup>th</sup> October, 2009
3.	Dr. Arvind Kumar Mungray (Coordinator)	Dr. Z. V. P. Murthy (Coordinator) Dr. N. J. Mistry (Co-coordinator) Dr. M. Chakraborty (Co-coordinator) Dr. Alka A. Mungray (Co-coordinator)	AICTE approved STTP on Anaerobic Digestion of Wastewaters	One week from 22 <sup>th</sup> – 26 <sup>th</sup> February 2010
4.	Dr. Arvind Kumar Mungray (Coordinator)	Dr. Alka A. Mungray (Coordinator) Dr. Z. V. P. Murthy (Coordinator)	TEQIP-II Sponsored Workshop on "Nanotechnology and its application"	Three days from 19 <sup>th</sup> to 21 <sup>st</sup> April, 2013
5.	Dr. Arvind Kumar Mungray (Coordinator)	Dr. Alka A. Mungray (Coordinator) Dr. Z. V. P. Murthy (Coordinator)	TEQIP-II Sponsored Workshop on "Advances on wastewater treatment and energy generation"	One week from 30 <sup>th</sup> Sept. – 04 <sup>th</sup> Oct., 2013

## 15. Awards Received

- GATE Scholarship, University Grants Commission, 2000-2002
- MHRD Scholarship, Ministry of human resources & development, from 2002.
- First Prize (Trophy + 5000/- Rs.) in Poster Competition held at Mumbai organized by IChE in an International Conference on **“E-Waste Management in India A Sustainable Solution”**.
- **“Young Engineers Award”** 2011 from Institution of Engineers India.

## 16. Administrative Responsibilities

1. Chief Warden of Narmad Bhavan in S.V. National Institute of Technology, Surat (2015 to till date)
2. Hostel Warden of Hostel 2<sup>nd</sup> (Narmed Bhavan) in S.V. National Institute of Technology, Surat (2007-2008 & 2008-2009).
3. Hostel Warden of Hostel 10 (Raman Bhavan) in S.V. National Institute of Technology, Surat (2009-2011).
4. Chief Warden of Hostel 1 (Bhabha Bhavan of 800 capacity) in S.V. National Institute of Technology, Surat (2011-2012).
5. Departmental Post Graduate programme In-Charge (M.Tech. Research programme) (2007-2008 & 2008-2009).
6. Departmental Coordinator of Technical Education Quality Improvement Programme (TEQIP) (2007-2008 & 2008-09).
7. Member of mess tender committee (2007-2008).
8. Member of Institute Software Development and Implementation. (2008 - 2009).
9. Member of Institute furniture procurement committee (2007-2008 & 2008 - 2009).
  - a. Member Secretary for the procurement of Class Room Boards & Display System for SVNIT, Surat.
  - b. Member Secretary for the procurement of Class Room Benches for SVNIT, Surat.
  - c. Member Secretary for the procurement of Gym Equipments for SVNIT, Surat.
  - d. Member for the procurement of Faculty Furniture for SVNIT, Surat.
10. Member of hostel admission committee (2007-2008).
11. First year Divisional Coordinator of Division A (2008-2009 & 2009-2010)
12. B. Tech. Final Year Faculty advisor (2008-2009 & 2009-2010)
13. In-charge Head of the Department (23-05-09 to 15-06-09)
14. Departmental Post Graduate program In-Charge (M.Tech. program) (2010-2011).

### 17. Other Information: Ph.D. Supervision: 5

Sr. No.	Name of Student	Year of registration	Ph.D topic	Supervisor	Co-Supervisor (if any)	Status
1	Mr. Amol Balasaheb Saner (PEC)	Jan. 2010	Treatment of Distillery Wastewater in UASBR and its Post treatment by MFC	Dr. N. J. Mistry	<b>Dr. Arvind Kumar Mungray</b>	Completed
2	Mr. Tushar Yadav (FIR)	July, 2012	Toxicity and Dispersion Characteristics of Nanomaterials and their Antimicrobial applications	<b>Dr. Arvind Kumar Mungray</b>	Dr. Alka Mungray	On-going
3	Mr. Satish Rikame (PEC)	July, 2013	Electricity generation and metal recovery from wastewater using microbial fuel cell	Dr. Alka Mungray	<b>Dr. Arvind Kumar Mungray</b>	On-going
4	Mr. Priyakant Pushkar (FIR)	Dec. 2013	Performance evaluation of Microbial fuel cells	<b>Dr. Arvind Kumar Mungray</b>	-----	On-going
5	Mr. Om Prakash (PPF)	Aug. 2015	Benthic microbial fuel cell for powering Naval sensors	<b>Dr. Arvind Kumar Mungray</b>	-----	On-going

### M.E./M.Tech. Dissertations Guided: 19

Sr. No.	Name of Student	Year of Completion	Thesis Title	Supervisor	Co-Supervisor (if any)
1	Mr. Prakash Konakala	2007	To evaluate the performance of tertiary treatment in a full scale up-flow anaerobic sludge blanket (UASB) based sewage treatment plant	Dr. Z. V. P. Murthy	<b>Dr. Arvind Kumar Mungray</b>
2	Ms. Khushbu Patel	2009	Removal of Pathogens and Nutrients in up-flow anaerobic sludge blanket (UASB) based sewage treatment plants	<b>Dr. Arvind Kumar Mungray</b>	_____
3	Mr. Ashwin Tirpide	2010	Degradation of 2,4 Dichlorophenol by sequential anaerobic and aerobic processes	<b>Dr. Arvind Kumar Mungray</b>	_____
4	Mr. Aantaram N. Sarve	2010	Carboxylation of Toluene using CO <sub>2</sub>	<b>Dr. Arvind Kumar Mungray</b>	Dr. Pradip Munshi Dr. M. Chakraborty
5	Ms. Abhilasha P. Dixit	2010	Degradation of Phenolic compounds in wastewaters using advanced oxidation processes	Dr. M. Chakraborty	<b>Dr. Arvind Kumar Mungray</b>

6	Mr. Swarup Biswas	2011	Post treatment of UASB effluents by sand and activated carbon based filters	<b>Dr. Arvind Kumar Mungray</b>	_____
7	Mr. Shrirang V. Kulkarni	2011	Removal of heavy metals by micellar enhanced ultrafiltration	Dr. Alka A. Mungray	<b>Dr. Arvind Kumar Mungray</b>
8	Ms. Ishani K. Shah	2011	Effect of aeration on UASB effluent for pathogen removal: A study	Dr. N. J. Mistry	<b>Dr. Arvind Kumar Mungray</b>
9	Ms. Shilpa Nandwani	2011	Experimentation and optimization of advanced oxidation processes	Dr. M. Chakraborty	<b>Dr. Arvind Kumar Mungray</b>
10	Mr. Jeet Trivadi	2012	Coupling of ultrasound as a pretreatment and post treatment to a UASB reactor for the removal of Bisphenol A	Dr. M. Chakraborty	<b>Dr. Arvind Kumar Mungray</b>
11	Mr. Satish S. Rikame	2012	Electricity generation from acidogenic food waste leachate using dual chamber mediator less microbial fuel cell	Dr. Alka A. Mungray	<b>Dr. Arvind Kumar Mungray</b>
12	Mr. K. P. Kannan	2012	The effect of ultrasound on the performance of anaerobic dynamic membrane bioreactor treating municipal wastewater	Dr. Alka A. Mungray	<b>Dr. Arvind Kumar Mungray</b>
13	Mr. Manoj J. Kanade	2012	Treatment of combined textile and domestic wastewater in an up-flow anaerobic sludge blanket reactor	<b>Dr. Arvind Kumar Mungray</b>	_____
14	Mr. Pragneshkumar D. Chaudhary	2012	Anaerobic digestion of lignocellulosic wastes	<b>Dr. Arvind Kumar Mungray</b>	_____
15	Priyakant Pushkar	2013	Bio-electricity generation and wastewater treatment of real textile wastewater and domestic wastewater by novel cross-link microbial fuel cell	<b>Dr. Arvind Kumar Mungray</b>	_____
16	Nutan Paliwal	2013	Valorization of industrial and urban wastes with emphasis on chemical recycling of poly(ethylene tetraphthalate)	<b>Dr. Arvind Kumar Mungray</b>	_____
17	Vijay Thakre	2014	Performance enhancement of cross-linked microbial fuel cell for wastewater treatment and bioelectricity generation.	<b>Dr. Arvind Kumar Mungray</b>	-----
18	Sandeep Dharmadakhari	2014	Modification in proton exchange membranes for Microbial fuel cells (MFC).	<b>Dr. Arvind Kumar Mungray</b>	Dr. Alka A. Mungray
19	Pradeep Kumar	2015	Microbial Fuel Cell: Effects of Electrolyte pH and Electrode	<b>Dr. Arvind Kumar</b>	-----

			Modification on Power Generation	<b>Mungray</b>	
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### Achievements

- Worked as a **Co-Chairman** in one the technical sessions in Jordan International Chemical Engineering Conference –V, on September 11- 17, 2005 at Amman, **Jordan**.
- Worked as a **Co-Chairman** in one the technical sessions on Environmental Impact Assessment and Remote Sensing in National Conference on Sustainable Urban Environment: Issues and Management Strategies” during 27-29 Feb. 2008 at Civil Engineering Department, SVNIT, Surat.
- Worked as a **Chairman** in one the technical sessions in International Congress of Environmental Research at BITS-Pilani, Goa Campus, India during Dec. 18-20, 2008.

### Expert lecture Delivered

- i. Expert lecture on Wastewater treatment by using UASB reactors at N. G. Patel Polytechnic, Bardoli- Navsari road, Surat.
- ii. Expert lecture on Post treatment of UASB effluents in AICTE approved STTP “**Sustainable Water and Waste Management Techniques**” conducted by the Civil Engineering Department, SVNIT, Surat, One week during 27-31 July, 2009.
- iii. Expert lecture on “Need of tertiary treatment for anaerobic wastewater treatment” in AICTE approved STTP “**Treatment and Disposal of Wastewaters**” conducted by Chemical and Civil Engineering Department, SVNIT, Surat.
- iv. Expert lecture on “Anaerobic treatment of wastewaters” in AICTE approved STTP “**Anaerobic Digestion of Wastewaters**” conducted by Chemical Engineering Department, SVNIT, Surat.
- v. Expert lecture on “**Sustainable solution for wastewater treatment**” at Kribkho.
- vi. Expert Lecture at Center for Environment Research, Vidyabharti Institute of Technology and Research Centre on “**Wastewater treatment and reuse**”
- vii. Expert Lecture on “Need of Nanotechnology in efficient wastewater treatment and energy generation” in TEQIP-2 sponsored workshop on “Nanotechnology applications in Engineering & Technology” conducted by Chemical Engineering Department, VNIT, Nagpur during 15<sup>th</sup> – 17<sup>th</sup> February, 2013.
- viii. Expert Lecture on “Nanotechnology: Need and effects” in TEQIP-2 sponsored workshop on “**Nanotechnology Applications for Sustainable Development**” conducted by Chemical Engineering Department, SVNIT, Surat during 19<sup>th</sup> – 21<sup>st</sup> April, 2013.

- ix. Expert Lecture on “Impact of Nanoparticles on biological wastewater treatment systems Nanotechnology: Need and effects” in TEQIP-2 sponsored workshop on “**Nanotechnology Applications for Sustainable Development**” conducted by Chemical Engineering Department, SVNIT, Surat during 19<sup>th</sup> – 21<sup>st</sup> April, 2013.
- x. Expert Lecture on “Sustainable Solutions for Green Energy” in TEQIP-2 sponsored workshop on “**Advanced Materials, Characterization and applications in Materials Science and Engineering**” organized by Department of Applied Chemistry, SVNIT, Surat during 2<sup>nd</sup> – 6<sup>th</sup> September, 2013.
- xi. Expert Lecture on “Treatment of wastewater by UASB and its post treatment” in TEQIP-2 sponsored workshop on “**Advances on Wastewater Treatment and Energy Generation**” conducted by Chemical Engineering Department, SVNIT, Surat during 30<sup>th</sup> Sept. – 04<sup>th</sup> Oct., 2013.
- xii. Expert Lecture on “Microbial Fuel Cell technology for waste to energy application” in TEQIP-2 sponsored workshop on “**Advances on Wastewater Treatment and Energy Generation**” conducted by Chemical Engineering Department, SVNIT, Surat during 30<sup>th</sup> Sept. – 04<sup>th</sup> Oct., 2013.
- xiii. Expert Lecture on “Water Pollution and control” at Pacific school of Engineering Surat on 24/01/2014.
- xiv. Expert lecture on “Integrated planning of sustainable wastewater management” at Civil Engineering Department, IIT Roorkee on 23/007/15.

**Dr. Arvind Kumar Mungray**

**Date: 27-01-16**