



## ADDRESS

A – 17, Prime Bungalows, Near  
Kailash Shikhar, Sun Pharma Road,  
Vadodara, Gujarat, INDIA – 390012

## EMAIL

ksk.india@gmail.com

## CONTACT No.

9825741479 / 9687258306

## DATE OF BIRTH

20<sup>th</sup> JUNE, 1979

## EXPERIENCE, 16 YEARS

### 09 Years

*Assistant Professor at Navrachana  
University, Vadodara, Gujarat,  
(June 2009 – continuing)*

### 07 Years

*Faculty of Science, The Maharaja  
Sayajirao University of Baroda,  
Vadodara, Gujarat,  
(June 2002 – June 2009)*

## ABOUT Ph.D. WORK

**Title:** “Pre – concentration and  
quantitative determination of  
pharma compounds present in  
water”.

## GUIDE’S NAME

Prof. Prakash B. Samnani

## EDUCATION

### The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat

Ph.D. in Chemistry, *May 2011*

### National Institute of Technology, Rourkela, Odisha

M.Sc. in Chemistry, (1<sup>st</sup> Class, 65.2%) *May 2001*  
*Environmental Chemistry Specialization*

### Utkal University, Govt. College, Angul, Odisha

B.Sc. (1<sup>st</sup> Class Honors with Distinction, 63.75%), *May 1999*  
*Chemistry (Specialization), Physics, Mathematics, Electronics, Hindi,  
English*

### Kendriya Vidyalaya, F.C.I. Talcher, Odisha

Senior Secondary High School, Science, *May 1996*  
*Chemistry, Physics, Mathematics, Biology, English*

High School, *May 1994*

*Science, Mathematics, Social Science, Hindi, English*

## AWARDS / ACHIEVMENTS

- Research Fellowship of University Grants Commission, under “**Research Fellowship in Science for Meritorious Students**” scheme to carry out his research work.
- Nominated for prestigious “**Dr. Vikram Sarabhai Award**” 2010 for Eminent Scientists in the field of Environment by Gujarat Council on Science and Technology, Department of Science & Technology, Government of Gujarat. (Awaiting for Results)
- Awarded **Best Faculty** (Student’s Choice), twice in the academic year 2015 – 16 at Navrachana University, Vadodara.

## PROJECTS

### Completed

1. **Title of the Project:** e-content generation for students of science in graduate programmes. **Funding Agency:** NME-ICT, Ministry of Human Resource Development, Department of Higher Education, Government of India. **Status:** Successfully completed
2. **Title of the Project:** Need assessment and teacher recruitment for specific requirements – I. **Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat. **Status:** Successfully completed.

## Ph.D. THESIS IN BRIEF

*The overall work is organized in five chapters. Chapter one describes the literature survey in the area. Chapter two contains pre – concentration method developed for aspirin and paracetamol. The drugs were analyzed by UV – Visible spectrometer. Chapter three discusses pre – concentration method developed for esomeprazole magnesium, fenofibrate, and venlafaxine HCl. The drugs were analysed by HPLC. Chapter four describes validation of gradient HPLC method developed for simultaneous determination of esomeprazole magnesium, fenofibrate and venlafaxine HCl. Environmental samples were also analysed for esomeprazole magnesium, fenofibrate and venlafaxine HCl by a new developed LC – MS method. Chapter five is concerned with treatment studies of drugs from water using activated charcoal loaded with metal and metal complex.*

3. **Title of the Project:** Need assessment and teacher recruitment for specific requirements – II. **Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat. **Status:** Successfully completed.
4. **Title of the Project:** Competency based continuing professional development - I. **Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat. **Status:** Successfully completed.
5. **Title of the Project:** Competency based continuing professional development - II. **Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat. **Status:** Successfully completed.
6. **Title of the Project:** Setting up of Chemistry Laboratory at Institute of Infrastructure, Technology, Research and Management (IITRAM), Maninagar, Ahmadabad, 380001 **Funding Agency:** IITRAM, Gujarat. **Status:** Successfully completed.

### Proposed

- **Title of the Project:** Removal of antibiotics from waste water by membrane technology. **Funding Agency:** Biotechnology Industrial Research Assistance Council (BIRAC), Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India & Bill & Melinda Gates Foundation (BMGF). **Status:** Proposal Submitted, Shortlisted and qualified for final evaluation, Result awaited
- **Title of the Project:** surfactant removal technique from water for vegetable farmers. **Funding Agency:** Scheme for Young Scientist and Technologist, Department of Science and Technology, Government of India. **Status:** Shortlisted and qualified for final presentation, Results awaited.

## RESEARCH & PROJECTS GUIDANCE

**03, Ph.D., Status:** 02 Registered, Completed first Doctoral Review & 01 Yet to register

**03, M.Sc. Dissertation, Status:** Completed

**12, M.Sc. Industrial Internship, Status:** Completed

**02, B.Sc. Dissertation, Status:** Completed

## **PUBLICATIONS / RESEARCH PROJECT / CONSULTANCY DETAILS**

### **RESEARCH PAPERS**

1. A Simple Method for Simultaneous Determination of Aspirin and Paracetamol in Treated Municipal Sewage Water in Vadodara. K. S. Kumar, P.B. Samnani, S.P.Sahoo, N.R.Patel. *Env. Sc. In. J.*, 2(3) September 2007.
2. A New Method for Spectrophotometric Determination of Paracetamol. Ruchika Pal, Koppula Santhosh Kumar, P.B.Samnani. *Anal. Chem. In. J.*, 6 (2) December 2007.
3. Pre – concentration and Quantitative Determination of Esomeprazole Magnesium Present in Water. K. S. Kumar, P. B. Samnani. *Anal. Lett.*, 43: 1427 – 1433, 2010.
4. Development and Validation of a New HPLC Method for Simultaneous determination of Esomeprazole, Venlafaxine HCl and Fenofibrate. K. S. Kumar, P. B. Samnani. *Vol.6, No.1*, 838 – 844, 2014.
5. Pre-concentration and Quantitative Determination of Venlafaxine HCl Present in Treated Sewage Water. K. S. Kumar, P. B. Samnani. *Int. J. Sc. R. Inov.*, Volume IV, Issue VIIS, 19-22, 2017.
6. Pre-concentration and quantitative determination of Fenofibrate present in water. K. S. Kumar, P. B. Samnani. *Res. J. Chem. Environ.*, Vol. 22 (2), 43-48, 2018.

### **PRESENTED AT CONFERENCE / SEMINAR**

7. Poster titled “Preconcentration and Quantitative Determination of Pharma Compounds Present in Water” by K.S.Kumar and P.B.Samnani, presented at 4th All Gujarat Research Scholars Meet – 2006, at Applied Chemistry Department, Faculty of Technology and Engineering, M.S.University of Baroda, Vadodara on 22nd Jan – 2006
8. Poster titled “Preconcentration and Quantitative Determination of Aspirin and Paracetamol Present in Water” by K.S.Kumar and P.B.Samnani, presented at RSC-West India Section Students Symposium-2006 at the Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara during 13-14 October 2006.
9. Poster titled “Preconcentration and Quantitative Determination of Venlafaxine HCl Present in Water” by K.S.Kumar and P.B.Samnani, presented at XXI Gujarat Science Congress, Science City, Ahmadabad during 26th and 27th February, 2011.
10. Oral Presentation titled “Pre – concentration and Quantitative Determination of Venlafaxine HCl Present in Water”, by K S Kumar and P B Samnani, at 2013 Eastern Analytical Symposium & Exposition, New Jersey, USA.
11. Oral Presentation titled “Washcoated Monolith for Automotive Emission Control”, by K. S. Kumar & Ms. Maitry Bhatia, at National Conference on Pollution Management, Department of Environmental Studies, Faculty of Science, MSU, Vadodara on 3rd February, 2018.
12. Oral Presentation titled “Enhancement in the Properties of Catalytic Converters by using Pd/Ceria Zirconia Mixed Oxide System to Control Environmental Pollution”, by K. S. Kumar & Ms. Chesta Vyas, at National Conference on Pollution Management, Department of Environmental Studies, Faculty of Science, MSU, Vadodara on 3rd February, 2018.
13. Oral Presentation titled “Assessment of Ground Water Quality from Western Part of India: Implications to Regional Scale Human Health”, by K. S. Kumar, Ms. Neha Kshatriya & Ms. Priti Malik, at National Conference on Pollution Management, Department of Environmental Studies, Faculty of Science, MSU, Vadodara on 3rd February, 2018.

14. Poster Presentation titled "Synthetic Zeolites in Feed Stock Purification & Air Separation", by K. S. Kumar & Ms. Rupal Solanki, at National Conference on Pollution Management, Department of Environmental Studies, Faculty of Science, MSU, Vadodara on 3rd February, 2018.
15. Poster Presentation titled "A Survey on Tobacco Smoking Among Youngster From an Urban Area in Western India", by K. S. Kumar & Ms. Vinita Khariskar, at National Conference on Pollution Management, Department of Environmental Studies, Faculty of Science, MSU, Vadodara on 3rd February, 2018.
16. Oral Presentation titled "Zeolite Molecular Sieves in Feed Stock Purification & Air Separation", by K. S. Kumar, Ms. Rupal Solanki, N. R. Meshram & Mr. Suneet K. Yadav, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
17. Oral Presentation titled "Studies on Synthesis and Characterization of Erionite", by K. S. Kumar, Ms. Jyoti Yadav, Mr. Vasudev N. Shetti, & Mr. Suneet K. Yadav, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
18. Oral Presentation titled "Identification and characterization of a new impurity in terbutaline sulphate active pharmaceutical ingredient by LC-ESI-MS/MS and NMR", by K. S. Kumar, & Mr. Santosh Patil, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
19. Oral Presentation titled "A Survey of Tobacco Consumption in Vadodara by Youngsters", by K. S. Kumar, Ms. Vinita Khariskar & Ms. Hardee Shah, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
20. Oral Presentation titled "Development of a single elemental analysis method for Cd, Pb, As, Hg, Co, V & Ni elements by ICP-MS and finding its applicability in a wide range of pharmaceuticals", by K. S. Kumar, & Mr. Jateen Sheth, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
21. Oral Presentation titled "Stability of Washcoat Slurry", by K. S. Kumar Maitry Bhatiya, P. A. E. S. Srinivas, S. K. Yadav and, V. S. Narkhede, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
22. Oral Presentation titled "Study of the Redox Properties of the Pd/Ceria-Zirconia Mixed Oxide System", by K. S. Kumar, Ms. Cheshta Vyas, Mr. Rustom M. Cursetji, Mr. Vijay Narkhede and, Suneet Kumar Yadav, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
23. Oral Presentation titled "Groundwater Contamination and Pollution: It's Effect on Nandesari Village, Vadodara", by K. S. Kumar, Ms. Priti Malik, and, Ms. Neha Kshatriya, at Second National Conference on Innovating for Development and Sustainability, 5-6 October, 2017, Navrachana University, Vadodara.
24. Oral Presentation titled "Identification, Synthesis and Characterization of N-isopropyl octopamine", by K. S. Kumar, and, Mr. Parth Shah, at NUV Prayan, 7th March 2018, Navrachana University, Vadodara.
25. Oral Presentation titled "Development, Synthesis and Validation of HPLC Method for Impurity Present in Metoprolol", by K. S. Kumar, and, Ms. Zinal Soni, at NUV Prayan, 7th March 2018, Navrachana University, Vadodara.

## CONFERENCE / SEMINAR ATTENDED

26. Workshop on "Wavelength Dispersive X – Ray Fluorescence", October 22 – 23, 2013, organized by SICART, V. V. Nagar.
27. National Symposium on Emerging Horizons in Catalysis. UGC's CAS Programme at Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara on 25th – 26th September 2009.
28. National Seminar on Nuclear Magnetic Resonance: Advances and Applications. Under UGC – CAS Programme at Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara on 22 nd February 2009.
29. One Day Seminar on High Performance Liquid Chromatography organized by Indian Society of Analytical Scientists Baroda Chapter in association with Waters (India) Pvt Ltd. and Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara on 13th October 2007.
30. Workshop on Green Chemistry Sponsored by Department of Science and Technology, New Delhi at Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara on 22nd September 2006.
31. National Seminar on Chemistry Research at the 20th and 21st Century Interface Organized under UGC DSA Phase III Programme at Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara during 16th – 17th October 2006
32. National Workshop on Spectroscopy and Theoretical Chemistry Organized by Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara in association with Indian Society of Analytical Scientists, Baroda Chapter. 08th – 12th February 2005.
33. National Seminar on Polymers, Surfactants and Gels Organized by Indian Society for Surface Science and Technology at Department of Chemistry, Faculty of Science, M.S.University of Baroda, Vadodara during 11th – 13th March 2005
34. National Seminar on Urban Air Pollution: Issues and Solutions. Organized by Indian Association for Air Pollution Control in Association with Department of Botany, Faculty of Science, M.S.University of Baroda, Vadodara on 22nd March 2003.

## DETAILS OF PROJECTS UNDERTAKEN (Completed / Proposed)

1. **Title of the Project:** Surfactant removal technique from waste water for vegetable farmers.  
**Funding Agency:** Scheme for Young Scientist & Technologists, SEED Division, Department of Science & Technology, Government of India.  
**Total Project Cost:** Rs. 35,89,920  
**Status:** Defended before DST Project review committee in July 2018, Result awaited
2. **Title of the Project:** Removal of antibiotics from waste water by membrane technology  
**Funding Agency:** Grand Challenges India Funding Opportunity, On Antimicrobial Resistance (AMR), Jointly funded by, Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India & Bill & Melinda Gates Foundation (BMGF)  
**Total estimated project cost:** Rs. 34,29,000  
**Status:** Proposal Submitted, (Shortlisted and qualified for final evaluation)

3. **Title of the Project:** e-content generation for students of science in graduate programmes.  
**Funding Agency:** NME-ICT, Ministry of Human Resource Development, Department of Higher Education, Government of India.  
**Total Project Cost:** Rs. 7,00,000  
**Status:** Completed, May 2013.
  
4. **Title of the Project:** Need assessment and teacher recruitment for specific requirements - I  
**Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat  
**Total Project Cost:** Rs. 81,884  
**Status:** Completed, May 2010.
  
5. **Title of the Project:** Need assessment and teacher recruitment for specific requirements - II  
**Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat  
**Total Project Cost:** Rs. 2,43,051  
**Status:** Completed, July 2011.
  
6. **Title of the Project:** Competency based continuing professional development - I.  
**Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat  
**Total Project Cost:** Rs. 4,00,408  
**Status:** Completed, May 2010.
  
7. **Title of the Project:** Competency based continuing professional development - II.  
**Funding Agency:** Gujarat State Tribal Development, Education Department, Government of Gujarat  
**Total Project Cost:** Rs. 1,47,019  
**Status:** Completed, December 2010.
  
8. **Title of the Project:** Setting up of Chemistry Laboratory at Institute of Infrastructure, Technology, Research and Management (IITRAM), Maninagar, Ahmadabad, 380001  
**Funding Agency:** IITRAM, Gujarat  
**Total Project Cost:** Rs. 2,00,000  
**Status:** Completed, May 2014.

## **GUIDANCE DETAILS**

### **RESEARCH & PROJECTS GUIDANCE**

**02, Ph.D., Status: Registered, Completed first Doctoral Review**

*Title 1: Development and Validation of Analytical Methods for Estimation of Impurities in Pharmaceuticals*

*Title 2: Analytical Method Development, Validation and Impurity Profiling of Drug Substances*

**03, M.Sc. Dissertation, Status: Completed**

*Title 1: Synthesis & characterization of an Impurity in Dexaprine*

*Title 2: Synthesis & characterization of an Impurity present in Metoprolol*

*Title 3: Surfactant as Pollutant*

**12, M.Sc. Industrial Internship, Status: Completed**

*Industry, Sud Chemie India Pvt. Ltd., 10*

*Industry, Glennmark, 02*

**02, B.Sc. Dissertation, Status: Completed**

*Title 1: A study on the water quality of two ponds near Navrachana University, Vadodara*

*Title 2: Effect of Extraction Condition On Antioxidant Properties Of Sapidilla Fruit (Manilkara Zapota)*

**Dr. K. Santhosh Kumar**

Vadodara