

Er. G.S. Kanade



Staff id : 00598

Name: Gajanan Sitaramji Kanade

Designation: Principal Scientist

Education:

Sr. No.	Institution Place	Degree Awarded	Year	Field Study of
1.	Government Engineering College, Amravati (MS)	M.E. (Electronics)	1995	Electronics
2.	B.N. College of Engineering, Pusad (MS)	B.E. (Electronics)	1990	Electronics
3.	Dhamangaon Polytechnic, Dhamangaon (MS)	Diploma in Engineering	1987	Industrial Electronics

☐ **Position held:**

Sr. No.	Institution Place	Position	From (Date)	To (date)
1	CSIR-NEERI, Nagpur	Principal Scientist	January 01, 2010	Till Date
2	CSIR-NEERI, Nagpur	Scientist Gr. IV (3)	January 01, 2006	December 31, 2009
3	CSIR-NEERI, Nagpur	Scientist Gr. IV (2)	January 01, 2001	January 01, 2006

4	CSIR-NEERI, Nagpur	Scientist Gr. IV (1)	October 17, 1996	December 31, 2000
5	B.N. College of Engineerig, Pusad	Lecturer	June 29, 1990	October 16, 1996

“Project Name”;Sponsoredagency; Year (from.....to)

Preparation of RM for monitoring of pp-DDT and pp-DDE in drinking water

Sponsor : CSIR-NPL/PTB Germany

Monitoring of pesticide residues at national level

Sponsor :Dept of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India, New Delhi

Bio-inspired adsorbents and funtionalised materials for removal of organic pollutants during tertiary treatment of wastewater

MLP-66

Faculty for A training programme on Monitoring & Analysis of Environmental Toxics in Different Environmental Media for M/s Vizag Steel Plant Personnel

Testing of water samples for Heavy metals / Toxic metals / Pesticides /Fertilizers including Training programme on Water Quality Testing

Water Quality Monitoring of Ganga River from Goumukh to Hoogley under National Mission of Clean Ganga

□ **Publications :**

Papers published in International Journals

1. **Novel integrated carbon particle based three dimensional anodes for the electrochemical degradation of reactive dyes**
Rohit Mishra, Nageshwara Rao Neti, Dionysios D. Dionysiou, MahendraTandekar, &**Gajanan S. Kanade**,
Journal of the Royal Society of Chemistry 2015, V. 05, pp 10799-10808
2. **Dynamics of effluent treatment plant during commissioning of activated sludge process unit"**
Amit Bafana, Gulshan Kumar, Sanjay M. Kashyap, **Gajanan S. Kanade**, Vilas M. Shinde
Journal of Environmental Science and Pollution research (April 8, 2014)
3. **Investigation of Polybrominated diphenyl Ethers in old consumer products in India**
Kanchan Kumari, Jitendra K. Sharma, Gajana S. Kanade, Sanjay M. Kashap, Asha A. Juwarkar, Satish R. Wate
Environment Monitoring Assessment : DOI 10.1007/s10661-013-3596-2, Online published February 06, 2014
4. **Air-Lift Reactor system for treatment of wastegas containing Monochlorobenzene**
Pradnya R. Joshi, Sharvari C. Deshmukh, Amruta P. Morone, Gajanan. Kanade, R.A. Pandey
Environmental Technology, V. 34; No. 22; p. 3023-3029; 2013
5. **Does the stress-induced microalgae lipid suit biodiesel production? A case study with Chlorella Pyrenoidosa**
Ajam Y Shekh, Preeti Shrivastava, Krishnamurthi Kannan, Sandeep Mudliar, SivenasanSarvana Devi, Gajanan Kanade, Satish Lokhande, Tapan Chakrabarti
Bioresource Technology, Elsevier Publication V.138; p.382-386; 2013
6. **A Proposed Method to Minimize the Global Warming and Environmental Pollution**
P. R. Tayade, V. S. Sapkal, R. S. Sapkal, S. K. Deshmukh, C. V. Rode, V.M. Shinde, G. S. Kanade
Journal of Environment Science & Engineering (NEERI), 52(2), 287-293, April 2012
7. **Removal of persistent organic pollutant Hexachlorocyclohexane isomers by advanced oxidation process**

- Kanchan Singh, Raju Dutta, G.S. Kanade and M. Suresh Kumar
Journal of Environment Science & Engineering (NEERI), 52(2), 279-286, April 2012
8. **Treatment of mixtures of toluene and n-propanol vapors in compost-woodchip based biofilter**
R.M. Dixit, S.C. Deshmukh, A.A. Gadhe, **G.S. Kanade**, S.K Lokhande, R.A Pandey, A.N.Vaidya, S.N. Mudliar, M.A. Deshusses
Journal of Environmental Technology, 33(7-9) 751-760, 2012
 9. **Degradative potential of Stenotrophomonas strain HPC383 having genes homologous to dmp operon**
Vinita Vermaa, Sajan C. Rajua, AtyaKapleya, Vipin Chandra Kaliab, **Gajanan S. Kanade**, Hatim F. Daginawalad and Hemant J. Purohita,
Bioresource Technology, 2011, 102, 3227-3233
 10. **Biodegradation of chrysene by the bacterial strains isolated from oily sludge**
Monika Dhote, Asha Juwarkar, Anil Kumar, **G.S. Kanade**, &Tapan Chakrabarti
World Journal of Microbiology Biotechnology, Volume 26, 2010, Pages 329-335
 11. **Isolation and Characterization of a Phorate Degrading Bacterium**
Rani R, Lal R, **KanadeG.S.** &Juwarkar A.
Letter in Applied Microbiology, Volume 49(1), April 2009, Pages 112-116
 12. **Metal Exchanged ZSM-5 Zeolite based Catalysts for Direct Decomposition of N₂O**
Suresh Kumar¹, S. Rayalu¹, Nunzio Russo², P. Dixit¹, **G.S. Kanade¹**, H. Kusaba³, Y. Teraoka³ and Nitin Labhsetwar^{1*}
Catalyst letter, July 2009
 13. **In-situ bioremediation of organochlorine-pesticide-contaminated microcosm soil and evaluation by gene probe**
Asifa Qureshi, M. Mohan, **Gajanan S. Kanade**, AtyaKapley and Hemant J Purohit
Pest management Science 2009, Volume 65, April 2009, Pages 798-804
 14. **Detoxification of benzidine based azo dye by E. galinarum: time-course**
Amit Bafana, Tapan Chakrabarti, Pradeep Muthal&**Gajanan Kanade**
Ecotoxicology and Environmental Safety, Volume 72, Issue 3, March 2009, Pages 960-964
 15. **Enrichment and isolation of endosulfan degrading and detoxifying bacteria**
Koel Kumar, Sivanesan Saravana Devi, Kannan Krishnamurti, **Gajanan SitaramjiKanade**, &Tapan Chakrabarti
Chemosphere, Vol. 68 (2), June 2007, pp 317-322.

Papers published in National Journals

1. **Degradation studies of Hexachlorocyclohexane Isomers using GC-ECD**
P. Bhatt, **G.S. Kanade**, M. Suresh Kumar and T. Chakrabarti
Journal of the instrument society of India, Vol. 35 (4), December 2005, pp 335-340
2. **Operating environmental laboratories – An approach to management of analysis equipment**
G.H. Pandya, **G.S. Kanade**, V.M. Shinde & V.K. Kondawar
Indian Journal of Environmental Health, Vol. 45 (4), October 2003, pp 311-316
3. **Advanced Analytical Instrumentation for Environmental Sample Preparation**
G.H. Pandya, B.Z. Alone, **G.S. Kanade** & V.M. Shinde
Indian Journal of Environmental Protection, Vol. 23 (2), February 2003, pp 149-154
4. **Obtaining and processing analytical data from GC in the window environment**
G.S. Kanade, V.M. Shinde, G.H. Pandya & B.Z. Alone
Indian Journal of Environmental Protection, Vol. 22 (10), October 2002, pp 1127-1131
5. **Geographical Information System for Complete Environmental Study In Context of Mining: A Case Study**
Priyakant, **G.S. Kanade**, A.S. Deshpande & V.K. Kondawar
Journal of Indian Association of Environment Management, Vol. 28 (2), June 2001, pp 109-112

Books:

Chapter Published in Book

1. **Equipment: Operation and maintenance for pollution level assessment** in Air, water and soil pollution. Editor – Dr. K.K. Singh
Authors : Dr. G.H. Pandya, **G.S. Kanade**, V.M. Shinde and Dr. V.K. Kondawar

□ **Papers in Conferences/Workshops/ Training Course (Part List):**

Papers published / presented in International Conferences

1. **Assessment of Air Pollution in and around Nagpur City**
K. Krishnamurthi, Mayuresh D. Bhanarkar, Shinde V.M., MrunalMeshram, **G.S. Kanade**, N.N. Bokade, Tunde OgbemiEtchie, Gregory O. Adewuyi, S. Saravana Devi
102nd Indian Science Congress, University of Mumbai at Mumbai, January 3-7, 2015
2. **Degradation of POPs in aquatic system using AOPs**
Dhananjay Tripathi, Kavita Gandhi, SummaiyaLari, G.S. Kanade, N.P. Thacker
Presented in International Symposium on Halogenated Persistent Organic Pollutants : Initiatives on Existing and Emerging POPs (IEEP – 2014), NEERI, Nagpur, January 16-17, 2014
3. **NO reduction by CO on ruthenia containing Zeolites**
D. Vallecha, H. Minamino, G. Vishwanathan, P. Chankapure, **G.S. Kanade**, S. Sivanesan, T. Mitsuhashi, H. Haneda, S. Rayalu& N. Labhsetwar
Published in International congress on catalysis and automotive pollution control, Brussels, Belgium, April 15-17, 2009
4. **Designing of Composter Cum Anaerobic Digester (CCAD) for Biogas production from Household Organic Wastes**
M.P. Raut, S.R. Zope, SPM Prince Willam, A.N. Vaidya, **G.S. Kanade**&TapanChakraborti
Published full paper in proceedings of Indo-Italian International Conference on Green and Clean Environment (GCE – 2008), MIT College of Engineering, Pune, March 20-21, 2008
5. **Assessment of Impact due to Volatile Organic Compounds in and around an Oil Refinery**
Ritesh Kumar. G.H. Pandya, S. Pentu Saheb, N. Chaterjee&**G.S. Kanade**
Presented in International workshop on EIR 07, NEERI, Nagpur, 25-26 October 2007
6. **Detoxification / Biotransformation of Endocrine Disruptor (Endosulfan) by mixed bacterial consortium**
K. Krishnamurthi, K. Kumar, S. Saravana Devi, D. Dutta, **G.S. Kanade**& T. Chakrabarti
Presented in Ninth international In-situ and on-site bioremediation on May 7-10, 2007, Baltimore, Maryland
7. **Treatment of grain-based distillery wastewater and recovery of organic acid**
Y.B. Pakade, R.A. Pandey, **G.S. Kanade**

Presented in international conference on Exploring Horizons in Biotechnology: A Global Venture, Bakrol, Gujrat - November 2-4, 2006

8. **Biodegradation of chlorobenzene in air-lift bioreactor system**

P.R Joshi, N.L. Dhawale, S.N. Mudliar, **G.S. Kanade** & R.A. Pande

Presented in international conference on Exploring Horizons in Biotechnology: A Global Venture, Bakrol, Gujrat - November 2-4, 2006

9. **Extraction of Organochlorine Pesticide from water using supercritical fluid technology**

Raka Biswas, M. Raut, **G.S. Kanade**, T.K. Ghosh and T. Chakrabarti

International workshop on RD frontiers in Water and Wastewater Management, NEERI, Nagpur, January 20-21, 2006

10. **Degradation of Aldrin Using advanced Oxidation process: Comparison of treatment methods**

Koel Kumar, **G.S. Kanade**, G.H. Pandya and T. Chakrabarti

International workshop on RD frontiers in Water and Wastewater Management, NEERI, Nagpur, January 20-21, 2006

11. **Automation of Instrumentation in water treatment facilities**

G.H. Pandya, V.M. Shinde, **G.S. Kanade** and V.K. Kondawar

International workshop on RD frontiers in Water and Wastewater Management, NEERI, Nagpur, January 20-21, 2006

12. **Application of Remote Sensing Data & Geographical Information System for Landuse / Landcover Change Analysis in Mining Area: A Case Study**

Priyakant, **G.S. Kanade**, A.S. Deshpande & V.K. Kondawar

Paper presented in ICORG-2000 of International Society of Photogrammetry and Remote Sensing (ISPRS), Hyderabad, December 1-4, 2000

Papers published / presented in National Conferences

1. **Assessment of Air Pollution in and around Nagpur City**
K. Krishnamurthi, Mayuresh D. Bhanarkar, Shinde V.M., MrunalMeshram, **G.S. Kanade**, N.N. Bokade, Tunde OgbemiEtchie, Gregory O. Adewuyi, S. Saravana Devi
Presented at 102nd Indian Science Congress, Hosted by University of Mumbai at Mumbai from January 3-7, 2015
2. **Analytical Instrumentation for Environmental Monitoring and QA/QC Aspects**
Neeta P. Thacker, **Gajanan Kanade** and Aziz Hasan
Presented at IASC, Kerala, November 2008
3. **Development of Method for estimation of Chlorobenzene in Gaseous Emission**
Pradnya Joshi, RA Pandey & **G.S. Kanade**
National conference on Indian Analytical Science congress – 2008 at RKN COE, Nagpur, December 2007
4. **Instrumentation Services in Environmental Laboratories**
G.S. Kanade, V.M. Shinde & G.H. Pandya
Presented in National symposium on instrumentation (NSI-32) during October 24-26, 2007 at Trichegode, Erode
5. **Trends in and dynamics of innovation in analytical instruments for environmental analysis**
V.M. Shinde, **G.S. Kanade**, G.H. Pandya
Poster Presentation in National symposium on instrumentation (NSI-32) during October 24-26, 2007 at Trichegode, Erode
6. **Determination of VOCs in aqueous samples using Headspace GC**
Kanade G.S., Shinde V.M., Pandya G.H., Kondawar V.K & Singh Prabhat
Presented in National symposium on Instrumentation (NSI 30) at Cochin, November 29-30, 2005
7. **The need and application of ICP-AES for environmental elemental analysis**
Shinde V.M., **Kanade G.S.**, Pandya G.H., & Kondawar V.K
Presented in National symposium on Instrumentation (NSI 30) at Cochin, November 29-30, 2005
8. **Degradation studies of Hexachlorocyclohexane isomers on GC-ECD**
Pravina Bhatt, **G.S. Kanade**, M. Suresh Kumar & T. Chakrabarti
Presented in National symposium on Instrumentation (NSI 28) at GB Pant University of Agriculture and Technical, Pant Nagar, November 3-5, 2003

9. **Application of remote sensing and geographical information system in hazardous waste disposal**
Galgale H.M., **Kanade G.S.**, Shinde V.M.
Presented in National Seminar on Status of Environmental Management in Mining industry at Varanasi, January 17-18, 2003
10. **Applying internet technology for GIS and Remote Sensing applications**
Kashyap S.M., **Kanade G.S.** & Shinde V.M.
Presented in National conference on Pollution Prevention and control in India, VRCE, Nagpur – March 2-3, 2002
11. **Application of Remote Sensing in Environmental Studies**
Galgale H.M., **Kanade G.S.** & Shinde V.M.
Presented in National conference on Pollution Prevention and control in India, VRCE, Nagpur – March 2-3, 2002
12. **Futuristic Aspects of Instrumentation and Automation related to Environmental Applications**
G.H. Pandya, **G.S. Kanade**, V.M. Shinde & V.K. Kondawar,
Presented in National Symposium on Analytical Instruments (NSAI 2001), Chandigarh
13. **Microprocessor base pH controller for sugar industry**
G.S. Kanade, V.M. Shinde & G.H. Pandya,
Paper presented in National Symposium on Instrumentation (NSI 25), Bangalore, November 8-11, 2000
14. **Management of Analytical Instrumentation in Environmental Laboratory**
G.H. Pandya, B.Z. Alone, **G.S. Kanade**, V.M. Shinde & V.K. Kondawar
Paper presented in National Symposium on Instrumentation (NSI 25), Bangalore, November 8-11, 2000
15. **Development of Geographical Information System Based Database for Study of Mining Environment: A Case Study**
G.S. Kanade, A.S. Deshpande, Priyakant & V.K. Kondawar,
Paper presented in National Symposium on Remote Sensing and GIS for resource Management, conducted by Indian Society of Remote Sensing (ISRS), Bhubaneswar, March 22-24, 2000
16. **Advanced Analytical Instrumentation for Environmental Sample Preparation**
G.H. Pandya, B.Z. Alone, **G.S. Kanade** & V.M. Shinde,
Paper presented in National Symposium on Instrumentation (NSI 24), Goa, February 2-5, 2000
17. **Development of data processing tools for Analytical Instruments**

G.S. Kanade, V.M. Shinde, B.Z. Alone, G.H. Pandya & V.K. Kondawar

Paper presented in National Symposium on Instrumentation (NSI 24), Goa, February 2-5, 2000

18. Applications of remote sensing and GIS in agriculture management

Priyakant, **G.S. Kanade** & V.K. Kondawar,

Paper presented in National Conference on Information Technology, PDKV Akola, January 22-24, 2000

19. Microprocessor base temperature controller for desuperheating in sugar industry

G.S. Kanade,

Paper presented in National Symposium on Instrumentation (NSI 23), New Delhi, October 1998

☐ **Write-up of Scientists Homepage (Details about their contribution in R & D along with personal details)**

Teaching Experience : Lecturer, B.N. College of Engineering, Pusad, from June 1990 to October 1996

Research Experience : 19 years research experience in CSIR-NEERI, Nagpur

Job Responsibility : In-charge of High Resolution Gas Chromatography with Magnetic Sector Mass Spectrometer(HRGC-HRMS), Quadrupole Gas Chromatography Mass Spectrometer (Q-GCMS) and Gas Chromatography (GC) Laboratory,
Organize training programmes related to analysis of pesticides and other organic pollutants.

Maintenance of calibration and lab records for ISO 9001:2000 and NABL NEERI Pesticide Residue Laboratory

Area of Specialization : Electronics, Instrumentation, Analytical instrumentation, quality control and Application of Remote Sensing Data & Geographical Information System.

Analytical Instrumentation : Operated and maintained various analytical instruments such as Gas Chromatograph, High Performance Liquid Chromatography (HPLC) and Gas Chromatograph-Mass Spectrometer (GCMS) for analysis of trace level organic environmental pollutants from different matrices such as

air, water and soil. Developed methodology & large quantity of samples have been analyzed for organic pollutants such as Poly Aromatic Hydrocarbons (PAH), VOCs, THM, Pesticides, Dioxin and Furans related compounds, PCBs, PBDEs, and gasses like methane, hydrogen using HRGC-HRMS, Q-GCMS and GCs with QA/QC.

Presently in-charge of Gas Chromatography laboratory equipped with state of art High Resolution GC with Magnetic Sector MS, Qudrupole-GCMS, GCs with Packed column, Split / split less (S/SL), programmable S/SL injectors, Flame ionization, Electron capture and Thermal conductivity detectors, attached with Head space and Automated thermal desorber inlet systems.

Development

- : Designed and developed an indigenous prototype low cost on-line Turbidimeter based on nephelometry principle

Windows based software was developed to acquiring data from the Gas Chromatograph and processing of chromatographic data.

Developed software for delineation of Land-use and Land-cover from Remote sensing data

Developed noise model for prediction of noise level and integrated with GIS for delineation of impact zones and its identification for planning and mitigation measures.

Developed software for remote access of analytical instruments (Gas Chromatography) using LAN facility.

Paper Reviewed

- : Manuscript ID JFRM-0037-09 entitled "Spatial analysis on impacts of mining activities leading to flood disaster in Erai watershed, India" for the Journal of Flood Risk Management

Manuscripts related to Noise for the Journal of Environment Science and Engineering

Deputation

- : Training and exposure on characterization of material using various techniques at Czech Republic during March 29, 2010 to April 08, 2010

Training programme on analysis of dioxins and related compounds at Center for Marine and Environmental

Studies (CMES), Ehime University, Matsuyama, JAPAN during November 20, 2010 to December 19, 2010

Training for JEOL JMS-700(2) the MStation Mass Spectrometer at Japan Electron & Optics Laboratory (JEOL) Co. LTD., Tachikawa, TOKYO, JAPAN during October 07, 2013 to October 18, 2013

Attended meeting of Consultative Committee on Quality of Matter (CCQM) Working Group on Organic Analysis (OAWG) at Bureau International Des Poids Et Measures (BIPM, Sevres), Paris (France) during April 03-04, 2014

Attended Global Urban Water Research Workshop held at Newcastle University during July 12-19, 2014. and delivered a talk on, "Analysis of Organic Pollutants - Pesticides." Also demonstrated the method for analysis of Synthetic Pyrethroids at

Faculty

: Recognized guide for M.E. in Electronics by research (RSTM Nagpur University)

Faculty for CSIR-AcSIR academy and training programs organized in the institute.