

Designation: Chief Scientist
 Qualification: M.Tech.(Control and Instrumentation)
 Ph.D.(Electronics Engg.)
 Specialization: Analytical & Electronics Instrumentation
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Staff ID: 00142
 Name: Dr Ghanshyam Laxman Bodhe
 Institute: NEERI, Nagpur-440020
 Education:

Sl No.	Institution Place	Degree Awarded	Year	Field of Study
1.	Nagpur University, India	B.E.	1985	Electronics and Power
2.	Indian Institute of Technology, Mumbai	M.Tech.	1987	Control and Instrumentation
3.	Nagpur University, India	Ph.D.	1997	Electronics Engg. & Technology

Post Held:

Sl No.	Institution Place	Position	From(Date)	To(Date)
1.	CSIR-NEERI	Scientist 'B'	April 1987	March 1992
2.	CSIR-NEERI	Scientist 'C'	April 1992	March 1997
3.	CSIR-NEERI	Scientist 'E-I'	April 1997	March 2002
4.	CSIR-NEERI	Scientist 'E-II'	April 2002	March 2007
5.	CSIR-NEERI	Sr. Principal Scientist	April 2007	March 2014
6.	CSIR-NEERI	Chief Scientist	April 2014	Till Date

Associated with the following projects:

Design and development (R&D)

1. Drone enabled auto sampler design for water sampling in remote and in-accessible areas on river, Dr G L Bodhe, Piyush Kokate, MLP-87 (Rs. 18.5 Lakhs). **On-going**

2. "Analysis of active ingredients in BHC, Lindane, Methyl Parathion and Dimethoate pesticides", sponsored by MP State Agro Industries Development Corporation Ltd, Bhopal, PI: Dr G L Bodhe (Rs. 14.6 Lakhs)(Feb 2015-March 2016).
3. Development of real time wireless embedded multi-sensor system for monitoring and analyzing WQ parameters, Sponsored by XIIth FYP(Rs.24.5Lakhs) (2013-2015)
4. Nano-device for sensing pathogenic viruses in drinking water, Sponsored by XIIth FYP (2013-2015)
5. Study of bacterial disinfection by using VUV/UV excimer source, Sponsored by CSIR (ILP 0011), in collaboration with CSIR-CEERI, Pilani, 2011-2013.
6. Development of Compact Radio-photo-luminescent Phosphor Discs & Reader System, DRDO, Defence Research Laboratory, Jodhpur, 2009 – 2012
7. Development and mass scale production of Phosphors for dosimetric applications, BARC, Mumbai, 2009 – 2012
8. Development of portable digital kit for field measurement of Arsenic – SIP16(3.4), 2007- 2012

EIA projects (Noise monitoring and prediction)

1. Carrying capacity study of mines in Keonjhar, Mayurbhanj and Sundergarh districts of ODISA, Sponsored by MOEF, Govt. of India. (2014-18, Ongoing)
2. EIA Harihar Alloys Pvt Ltd), Trichy (2016)
3. Comprehensive EIRA Study for Proposed Port Phase II, Extension of Breakwater at Chhara Village in Kodinar Taluka, GirSomnath Dist. of Gujarat (Cat. A), 2013-15
4. Comprehensive EIRA Study for Proposed 10 MMTPA LNG Terminal at Chhara village in Kodinar Taluka, GirSomnath District of Gujarat (Cat. A), 2013-15
5. EIRA for the Proposed Excel Solvent Spun Cellulosic fibre (109500 TPA) along with CPP at Kharach, Dist. Bharuch, Gujarat (Cat. B), 2013-15
6. EIRA Studies for Proposed Crude, Natural Gas and Water Pipeline for Rajasthan Refinery cum Petrochemical (RRP) Complex at Pachpadra, Barmer, Rajasthan(Cat. A), 2013-15.
7. EIRA Studies for Proposed Grass-root Refinery with Petrochemical Complex at Pachpadra, Barmer, Rajasthan, (Cat. A), 2013-14
8. Rapid EIA for Installation of Proposed 1x660 MW Coal Based Thermal Power project at Paras, Dist. Akola, Maharashtra **(Cat. A), 2011-12**
9. EIRA study for proposed Coal Based Power Plant, Coal Jetty and Debottlenecking of Petrochemical Polyester and Polymer Plant at Hazira, Gujarat(Cat. A), 2013-14.
10. Environmental Impact and Risk Assessment Studies for Proposed Vizag Refinery Moderni-zation Project at Visakha-patnam(Cat. A), 2011-13.
11. EIRA for Mehsana Bhatinda, Bhatinda Jammu Srinagar and MallavaramBhilwara Natural Gas Pipeline Project, (Cat. A) (2011-13)
12. EIA Iron Ore Mines, Rowghat, 2005.
13. EIA of Manoharpur Iron Ore Mines :Noise and Vibration Monitoring, Manoharpur, 2005
14. EIA of PARAS Thermal Power Station, April 2002
15. EIA of Proposed Gigaon Dam Project, Buldhana, May 1999
16. REIA Khyberpass Car Depot., DMRC, New Delhi. Sept. 1999

17. CEIA Study for Jalipa and Kapurdi Mining-cum- Lignite Based Thermal Power Generation Project, RSEB, Jaipur, Rajasthan, April 96.
18. Comprehensive Environmental Impact assessment for Site of Lignite Power Corporation, Jayamkondam, Tamilnadu, Sept. 1993.
19. Bharat Petro-Chemicals Ltd. Bombay, Maharashtra, April-June 1991
20. Hindustan Organic Chemicals Ltd. Bombay, Maharashtra, Jan. 1991
21. Tamilnadu News-print and Papers Ltd. Kagithapuram, Tamilnadu, March 1991.
22. EIA of six LPG units of ONGC at Vaghodia, Gujarat, July 1990
23. Hindustan Petro-Chemicals Ltd. Bombay (Maharashtra). Sept. 1989.
24. Naogaon and Cachher paper project of HPC, Gauhati (ASSAM), 1988.
25. Desalting plant CTF of ONGC, Ahmedabad, Gujarat, 1989

EIA projects (Vibration monitoring and impact assessment)

1. Acoustic induced vibration studies over the monuments within a radius of 10 kms for proposed Godhna Thermal Power Station (2X800MW) in Godhna, Salkhan and Kukda villages, Janjgir-Champa District (CG), Sponsored by Karnataka Power Corporation Ltd., Rs. 28.05 Lakhs (March 2016 – March 2017)
2. Noise & Vibration Study, HAPL, Trichy, July 2014.
3. Assessment of Impact of Vibrations Generated due to Construction Activities of Proposed Baradwar Dolomite mine, Champa, August 2011
4. Assessment of Impact of Vibration due to Constructional Activities of Proposed JSW Thermal Power Plant on Jaigad Fort, March 2010.
5. EIA of PARAS Thermal Power Station, April 2002.
6. Monitoring and Assessment of Vibration Impact :Rajhara Hill Lease (SAIL), July 2010.
7. EIA of BSL Project, Sunder Nagar (HP), June 99 and April 2000
8. EIA of Proposed Gigaon Dam Project, Buldhana, May 1999

Ph.D. and M.Tech. students supervised:

Ph.D. students supervised

1. "Thermal power plant and transmission network management : Voltage security and Environmental constraints", Kishor P Porate, GH Rasoni College of Engg., Nagpur. (2014)

M. Tech. Projects Supervised

1. "Design and Development of Micro-controller Based Ultrasonic Flow meter.", Mr. M.M. Sharma, M.Tech (Electronics), VRCE, Nagpur.(1997)
2. "PC Based Neuro-Fuzzy controller for some Environmental Parameters", Mr. Pramod N Gajbhiye, M.Tech (Electronics), VRCE, Nagpur. (2000)
3. "Micro-controller based Fuzzy controller for non-linear system", Mr. Pramod R. Ramtekkar, M.Tech (Electronics), VRCE, Nagpur. (2002-2003)
4. "Design and Development of Neuro-Fuzzy Based Adaptive Controller", Ms. Shruti S Raut, M.Tech (Electronics), VNIT, Nagpur. (2003-2004)
5. "Hospital Management System for NEERI Dispensary", Jayashree S Naidu, Amruta V Ghare, MCA, Kamla Nehru Mahavidyalaya, Nagpur

6. "Configurable Remote Access Measurement System", Vikas Kumar, MCA, Ramdeobaba Institute of Computer Applications, Nagpur.
7. "Energy, Environment Interaction of Thermal Power Plant: A Case study", Sunil D Kulkarni, Rajiv Gandhi College of Engg Research and Technology, Chandrapur. (2006 - 07)
8. "Design of micro-strip antenna using neural network", DeepaliSontakke, YCCE College of Engineering, Nagpur (2010).
9. "Design & Development of Interface for Realtime wireless monitoring of environmental parameters", NiveditaDeopujari, Cummins COE for Women, Pune-52 (2011)

M. Tech. Dissertations Supervised (By research)

1. "Neuro-Fuzzy Techniques: An Implementation to Some Environmental Parameters" SonaliNavghare, NEERI, Nagpur. **(2010)**.
2. "Design and development of neuro-fuzzy based model for noise environment", Asheesh Sharma, ESDM, NEERI, Nagpur (2016)
3. "Remote monitoring and management of analytical instruments through LAN/WAN", Poonam J. Prasad, ESDM Division, NEERI, Nagpur (2015).

Books:

Chapter on "Future Prospects of Plasma Treatment Technology for Disinfection", WamanPaunikar, Swapnil Sanmukh, Krishna Khairnar, RajashreeChandekar, Chetan Khapekar, Naresh Bokade, Udit Pal, RamPrakash, GhanshyamBodhe in the book **Information Technology in the Emerging**

Peer- reviewed (SCI) publications:

1. Krupadam Reddithota J; BhagatBhagyashree; Wate Satish; **Bodhe, Ghanshyam**; Sellergren B.; AnjaneyulYerramilli, "Fluorescence Spectrophotometer Analysis of Polycyclic Aromatic Hydrocarbons in Environmental Samples Based on Solid Phase Extraction using Molecularly Imprinted Polymer", International Journal of Environmental Science & Technology, Vol. 43, No.8, pp 2871-2877, April 2009. **(IF 4.36, Citations:19)**
2. KishorPorate, K L Thakre and **G L Bodhe**, "Distributed FACT Controllers as an Effective Tool for Reduction in Environmental Pollution due to Thermal Power Plant", WSEAS Transaction on Power Systems, Issue 3, Volume 4, pp85-94, March 2009.**(Citations:03)**
3. K.B.Porate, K.L.Thakreand **G.L. Bodhe**, "Voltage Stability Enhancement of Low Voltage Distribution Network Using Static VAR Compensator : A Case Study", WSEAS Transactions on Power Systems, Issue 1, Volume 4, pp32-41 January 2009.**(Citations:04)**
4. A. B. Chelani, C. A. Moghe , S. Nimsadkar, K. Gandhi, **G. L. Bodhe**, S. M. Dhopte, N. P. Thacker"Evaluation of bias, precision, and systematic errors in proficiency testing of Cl₂ and Cu concentration in water", Journal of Accredited Quality Assurance, On-line, April 2011. DOI 10.1007/s00769-011-0782-1.**(IF:1.036)**
5. P. R. Salve, H. Lohkare , T. Gobre, **G. Bodhe**, R. J. Krupadam, D. S. Ramteke, S. R. Wate "Characterization of Chromophoric Dissolved Organic Matter (CDOM)

in Rainwater Using Fluorescence Spectrophotometry” Bulletin of Environmental Contamination and Toxicology, Vol. 88, Issue 2, pp 215-218 February 2012 (DOI 10.1007/s00128-011-0424-7). (IF 1.139).

6. S R Navghare, **G L Bodhe**, Shruti “Design of Adaptive pH Controller using ANFIS” International Journal of Computer Applications (0975 – 8887) Volume 33, No.6, pp41-48, November 2011. (IF 0.835, Citations:01).
7. Kishor B. PORATE, Krishna L.THAKRE, **Ghanshyam L. BODHE**, “Minimization of GHG’s in coal based thermal power plants”, Journal of Electrical Engineering, Volume 12 / 2012 - Edition : 4, Article 12.4.21, Pages 139-146 (2012). (IF:0.967)
8. Poonam J. Prasad, **G.L. Bodhe**, “Trends in laboratory information management system”, Journal of Chemometrics and Intelligent Laboratory Systems, Volume 118, 15 August 2012, Pages 187–192. DOI:10.1016/j.chemolab.2012.07.001(IF: 2.295).
9. K. B. Porate, K. L. Thakre and **G. L. Bodhe**, “Impact of wind power on generation economy and pollution from coal based thermal power plant,” International Journal of Electrical Power and Energy Systems, Vol. 44, Issue 1, January 2013, pp889896
<https://www.sciencedirect.com/science/article/pii/S0142061512004772?via%3Dihub> ,Citations:02)
10. Kishor B. Porate, Krishna L. Thakre, GhanashyamBodhe “Power plants coordination for economic and environmental load dispatch of thermal power plants with wind generation systems”, Int. J. Power and Energy Conversion, Vol. 4, No. 3, 2013, 251-267, 2013. DOI:10.1504/IJPEC.2013.054844.
11. Sharma Asheesh, BodheGhanshyam, Schimak, G. "Development of a traffic noise prediction model for an urban environment", Noise and Health, Vol. 6, issue 68, pp63-67, Jan-Feb 2014 (IF 1.68).
12. Asheesh Sharma, Ritesh Vijay, G. L Bodhe and L.G Malik, “Adaptive Neuro Fuzzy Inference System for Traffic Noise Prediction”, International Journal of Computer Applications (0975–8887), Volume 98, No.13, July 2014 (IF 0.791).
13. "Extremely Low Frequency Electromagnetic Field (ELF-EMF) and childhood leukemia near transmission lines: A review”, P. A. Kokate^{2*}, A. K. Mishra, S. K. Lokhande, G. L. Bodhe, Journal of Advanced Electromagnetics, VOL. 5, NO. 1, pp30-40, April 2016 (IF 0.897).
14. “Development of adaptive and customizable Base Station System in Wireless Sensor Network”, NeerajBokade, G L Bodhe, Naresh Bokade, Kishore D Kulat, International Journal of Applied Engineering Research, ISSN 0973-4562 Volume 11, Number 1 (2016) pp 33-39. (IF=0.53)
15. Appraisal of Noise Level Dissemination Surrounding Mining and Industrial Areas of Keonjhar, Odisha: A Comprehensive Approach Using Noise Mapping, Satish K. Lokhande*, Satyajeet A. Dhawale, Samir S. Pathak, Rakesh Gautam, Mohindra C. Jain, Ghanshyam L. Bodhe, Journal of Archives of Acoustics Vol.42, No.3, PP.423-432 (2017)(IF=0.89).
16. Assessment of heterogeneous road traffic noise in Nagpur, India, Satish Lokhande, Samir S pathak, Piyush K Kokate&Ghanshyam L Bodhe, Journal of Archives of Acoustics (IF=0.89), Accepted for Publication.

- **Research Papers Published in Non-SCI Journals**

1. **Bodhe G. L.**, "Instrument Interfacing through IEEE-488: A Case Study", Journal of Institution of engineers (India), special issue on instrumentation Electronics, Vol.72, part ET 4, pp.144-148, Feb.1992.
2. **Bodhe G.L.**, Muthal P.L., Nawghare P.M., " Water Quality Monitoring Instruments: Design Aspects", Journal of Instrument Society of India, Vol.24, No.3 & 4, pp.117-123, 1994.
3. MohiteAsawari, **Bodhe G. L.**, Bassin J. K. and KondawarV.K."Integration of Weather and Air Pollution Monitors and Development of Software for PC Based Data Acquisition System". J. of Instrument Society of India, Vol.26, No.2, pp80-87, 1996.
4. **Bodhe G. L.**, Dhopte S. M. and Kondawar V. K. "PC Based Water Quality Monitoring System", Special issue of the Journal of Instrument Society of India, Vol. 26, No. 3, 1996.
5. **Bodhe G. L.**, Muthal P. L. and Nawghare P. M. "Microprocessor Based On-line Water Quality Monitoring System", J. of Instrument Society of India, Vol.27, No.1, pp53-59, 1997.
6. Clifford T., **Bodhe G. L.** and Kondawar V. K., "Towards Intelligent Control System Design: The Fuzzy Paradigm" J. Instrument Society of India, Vol. 28(1), pp. 1-11, 1998.
7. **Bodhe G.L.**, TalkhandeSangita, PentuSaheb S. & Dharmadhikari D.M. "A Portable Instrument for Temperature Inversion studies", Journal of Instrument Society of India, Vol 30(2), pp 101-108, 2000.
8. **Bodhe G.L.**, Nawghare P.M. "A Stand-alone Process Controller for pH", Journal of Instrument Society of India, Vol. 30(3), pp 184-193, 2000.
9. **Bodhe G.L.** and Kondawar V.K. " Fuzzy Logic Controller : An Implementation for Non-Linear System ", Journal of Instrument Society of India, Vol.34(1), pp 72 – 82, 2004.
10. **Bodhe G L** ,SonaliNavghare and Dharmadhikari D M "Fuzzy Logic: Instrumentation and Control Applications in Environmental Engineering", Journal of Instrument Society of India, Vol. 34(2), pp 109 - 120, 2004.
11. **Bodhe G L**, SonaliNavghare and Dharmadhikari D M "Design and Development of Programmable Field Instruments", Journal of Instrument Society of India, Vol.35(4), pp341-349, 2005.
12. **Bodhe G L**, D S Tajne, Sangeeta Talkhande, RenukaDashputre and D M Dharmadhikari, "An Investigation of Noise Exposure on Residential Areas: Rail Car Depot" Journal of Indian Association for Environmental Management, Vol 33, No 2, pp82-87, 2006.
13. **G L Bodhe**, S. Sona, S. PentuSaheb, "Implementation of low power battery operated wireless sensor network for measuring mixing height using tethered balloon", Journal of Instrument Society of India, Vol.40, No.1, pp41-42, March 2010.
14. **G L Bodhe**, Priya K Humane, Saurabh Sona and N P Thacker, "Design and Development of Lab-View based pH Controller", Journal of Instrument Society of India, Vol.40, No.2, pp139-140, June 2010.
15. **G L Bodhe**, Poonam J Prasad, "Online Instrument Controlling and Information Management System", Journal of Instrument Society of India, Vol.40, No.2, pp119-121, June 2010.

16. S K Atre, S. Sona, **G L Bodhe**, P L Muthal and S V Moharil, "Microcontroller based temperature controller/programmer for thermoluminescence (TL) dosimetry", Journal of Instrument Society of India, Vol.40, No.4, pp270-273, December 2010.

• **Papers in Conferences/Workshops:**

1. Badrinath S. D., Pawan Kumar, Sathiyaraj S.P., Muthal P.L. Kondawar V.K., **Bodhe G.L.**, Dutta H. N. and Naithani, "Application of Acoustic Sounding data in EIA of Jayamkondam lignite mines and thermal power plant" Seventh International Symposium on Acoustic Remote Sensing and Associated Techniques of the Atmosphere and Oceans, Boulder, Colorado, USA. Oct.24-26, 1994.
2. Bodhe G. L., Dhopte S. M. and Kondawar V. K. "PC Based Water Quality Monitoring System", Proceedings of the International Conference on Instrumentation (ICI-1996), 8-10 August, Bangalore (India), pp183-188, 1996.
3. Bodhe G.L., "Low Cost Instrumentation in Environmental Monitoring" a Country report presented at International Workshop organised by Commonwealth Science Council and COSTED at Jawaharlal Nehru Center for Advance Scientific Research, Bangalore. 9 - 14 March, 1998.
4. Bodhe G L, Dhone S N and Dharmadhikari D M, "Instrumental Techniques for Waste Assessment, Monitoring and Control in Water Distribution System", Proceedings of International Conference on Water & Environment (WE-2003), Regional Research Laboratory, Bhopal, pp 292 – 302 (Watershed Management), Dec 15-18, 2003 (India).
5. Bodhe G L, MuleyMekhala and Dharmadhikari D M, "On-line Instrumentation for Environmental Monitoring", Proceedings of International Conference on Instrumentation (INCON-2004), Pune Institute of Engineering and Technology, Pune, 19 – 21 December 2004.
6. Bodhe G L, Deshpande Leena, Saurabh Sona and RakhundeRupali, "Cost-effective Portable Electronic Instrument for Field Measurement of Arsenic" International Conference on Water Crises - Challenges and Opportunities, NEERI, Nagpur, 28 – 29 Feb 2008.
7. K.B.Porate, K.L.Thakre and G.L. Bodhe , "Voltage Stability Enhancement of Low Voltage Distribution Feeder Using Static VAR Compensator : A Case Study", Proceedings of 8th International Conference on Applications of Electrical Engineering, AEE-09, University of Houston, Houston, Texas (USA), April 30 - May 02, 2009
8. SonaliNavghare, G L Bodhe, "Design and Implementation of Real Time NeurofuzzyBased pH controller", ICETET-09, Second International Conference on Emerging Trends in Engineering and Technology, G H Rasoni College of Engineering, Nagpur, December 16 - 18, 2009, pp.946-952.
9. G L Bodhe, Priya K Humane, Saurabh Sona and N P Thacker, "Design and Development of Lab-View based pH Controller", Presented at International Conference on Instrumentation (ICI-2009) Organised by Instrument Society of India and MaharshiKarveStreeShikshanSanstha's Cummins College of Engg. for Women, PUNE, January 21-23, 2010.

10. G L Bodhe, Saurabh Sona and S PentuSaheb, "Implementtaion of Low Power Battery Operated Wireless Sensor Network fpr Measuring Mixing Height Using Tethered Baloon", Presented at International Conference on Instrumentation (ICI-2009) Organised by Instrument Society of India andMarahsiKarveStreeShikshanSanstha's Cummins College of Engg. for Women, PUNE, January 21-23, 2010.
11. G L Bodhe, Poonam J Prasad, "Online Instrument Controlling and Information Management Systemr", Presented at International Conference on Instrumentation (ICI-2009) Organised by Instrument Society of India and MarahsiKarveStreeShikshanSanstha's Cummins College of Engg. for Women, PUNE, January 21-23, 2010.
12. S P Gawande, K.B.Porate, K.L.Thakre and G.L. Bodhe "Synchronization of synchronous generator and induction generator for vottage and frequency stability using STATCOM", International Conference on Emerging Trends in Engineering and Technology (ICETET-10), Organised by G H Rasoni College of Engineering, Nagpur, and hosted by BITS Goa Campus, pp. 407-412, 16-19 Nov. 2010.
13. Prasanna L. Zade, N. K. Choudhari, G. L. Bodhe and DeepaliSontakke, International Conference on Communication Applications-Telecommunication, "An Adaptive Neuro-fuzzy Approach for Analyzing and Synthesizing Rectangular Microstrip Antenna"24-27 December, 2010, Pondicherry (doi:10.3850/978-981-08-7302-8_1358).
14. Bhawe V. R., Pandya G. H., Alone B. Z., Muthal P. L., Dharmadhikari D. M., Dhopte S. M., **Bodhe G. L.** and Nair S. R. "Instrumental methods for portable water analysis kits", presented in symposium on Recent trends in instrumental methods of analysis, organised by Dept. of Chemistry, university of Roorkee, Roorkee, March 1989.
15. **Bodhe G.L.**, Muthal P.L., Nawghare P.M., " Water Quality Monitoring Instruments: Design Aspects", presented in National Symposium on instrumentation, Organised by Instrument Society of India at Sri Venkateswara University, Tirupati, 9-12 Jan.,1994.
16. **Bodhe G. L.**, Muthal P. L. and Nawghare P. M. "Multichannel Automatic Sequential Air Sampler", Presented in National Symposium on Instrumentation, Karnataka University, Dharwad, 8-11 Nov. 1994.
17. MohiteAsawari, **Bodhe G. L.**, Bassin J. K. and KondawarV.K."Integration of Weather and Air Pollution Monitors and Development of Software for PC Based Data Acquisition System", presented in National Symposium, organised by Instrument Society of India, Osmania University Campus, Hyderabad, 25-28 Sept.1995.
18. **Bodhe G. L.** Muthal P. L. and Nawghare P. M. "Microprocessor Based On-line Water Quality Monitoring System", presented in National Symposium, organised by Instrument Society of India, Osmania University Campus, Hyderabad, 25-28 Sept.1995.
19. **Bodhe G. L.**, MohiteAsawari, Muthal P. L. and Kondawar V. K. "Development of PC-Based Software for Monostatic SODAR", Symposium on Instrumentation (NSI-22), 22-25 October 1997.

20. **Bodhe G.L.**, Kondawar V.K. and Nawghare P.M."Multiparameter Controllers: A Need for an Industry", Symposium on Instrumentation (NSI-22), 22-25 Oct.1997.
21. **Bodhe G.L.** Sharma M.M. and KondawarV.K."Design of Microcontroller Based Ultrasonic Flowmeter", National Symposium on Instrumentation (NSI-23), 7-10, October, 1998.
22. D.M. Dharmadhikari, Pande R.A., **Bodhe G.L.**, &DashputreRenuka "Application of Flash Combustion Coupled with Gas Chromatography for Environmental samples", presented at National Symposium on Instrumentation, Goa 2-5 Feb. 2000.
23. **Bodhe G.L.**,TalkhandeSangita, PentuSaheb S. and Dharmadhikari D.M. "A Portable instrument for Temperature Inversion Studies", presented at National Symposium on Instrumentation, Goa, 2-5 Feb. 2000.
24. **Bodhe G.L.**, &Nawghare P.M. "A Standalone process controller In pH", presented at National Symposium on Instrumentation, Goa, 2-5 Feb. 2000
25. Dharmadhikari D.M., **Bodhe G.L.**, Pandya G.H. "Management of Environmental Noise in an Industry: A Case Study", Proceedings of National Symposium on Environment, Bangalore University, June 2000, pp. 86-88.
26. **Bodhe G.L.** "Design and Development of SCADA System: An approach for Electrical Energy Management", National Symposium on Instrumentation (NSI - 25), Organized by Dept. on Instrumentation, Indian Institute of Science and Instrument Society of India, Bangalore, Nov. 8 - 11, 2000.
27. **Bodhe G L** ,"Design and Development of SCADA system: An Approach for Power Distribution System", AICTE Winter School on Automation of Power Distribution Networks for a New Millennium, Dept. of Electrical Engineering , VRCE, Nagpur. Oct 9 – 20, 2000.
28. **Bodhe G.L.**, TalkhandeSangita, Dharmadhikari D.M. and Kaul S.N. "Review of Recent Trends in Automation: Effluent Treatment Plant" IAEM National Conference on recent Advances in Waste Management, Institute of Technology, Banaras Hindu University, Varanasi, Feb. 23 – 25, 2001. pp 161 – 165.
29. **Bodhe G L** , Dharmadhikari D M, Kaul S N ,"Automation in Water and Wastewater Treatment Facilities", Conference on Pollution Prevention and Control in India, VRCE, Nagpur. March 2 – 3, 2002 pp 245-250.
30. **Bodhe G L**, NavghareSonali and Dharmadhikari D M "Fuzzy Logic: Instrumentation and Control Applications in Environmental Engineering", National Symposium on Instrumentation (NSI-27), Bhartiya University, Coimbatore, 27-29 Nov 2002, pp 104.
31. **Bodhe G L**, SonaliNavghare and Dharmadhikari D M "Design and Development of Field Instruments : A Case Study", Presented at National Symposium on Instrumentation, NSI-28, G B Pant University, PantNagar, Nov 3 – 5, 2003.
32. **Bodhe G L**, D S Tajne, Sangeeta Talkhande, RenukaDashputre and D M Dharmadhikari, "An Investigation of Noise Exposure on Residential Areas: Rail Car Depot" Greentech International Conference on Environmental Management, 22 – 24 Oct 2005, Goa.
33. **Bodhe G L**, Vikas Kumar, Kondawar VK, "Configurable Remote Access Measurement System", National Symposium on Instrumentation (NSI-31), Instrument

Society of India and Institute of Technology and Management, Gwalior (MP), 12-15 Oct, 2006.

34. **Bodhe G L**, Vikas Kumar, Kondawar VK, “Configurable Remote Access Measurement System”, National Symposium on Instrumentation (NSI-31), Instrument Society of India and Institute of Technology and Management, Gwalior (MP), 12-15 Oct, 2006.
35. Mahavadiwar V N, **Bodhe G L**, “Neural Network Model for Prediction of Dose Response of Food borne Pathogens”, National Technology Paper presentation competition, SPARK-2007, KDK college of Engineering, Nagpur, 27 – 28 Feb, 2007.
36. S K Lokhande, **G L Bodhe**, D M Dharmadhikari, N P thacker “Nano-technology for Environmental Applications, An Overview”. Presented at National Conference on NANOTRENDS-2008, DMP Deo Memorial Science College, Nagpur. Sept 27, 2008.
37. Poonam J Prasad, G L Bodhe and R A Sohoni, “Sophisticated Scientific Instrument Access via LAN/WAN” National Symposium on Instrumentation (NSI-37), 30-31 Oct and 1st Nov, 2012, Chandigarh.

Training Programmes Organised:

1. Organising member, WHO training programme on WQ monitoring and surveillance and emergency supply and sanitation, NEERI, Nagpur, March 5 – 30, 2007.
2. Organizing member, DST Cluster of Projects Meeting on “Sensors/Instrumentation for Water Pollution: Physical, Chemical and Biological: Detection and Mitigation”, NEERI, Nagpur, April 24 – 26, 2008.
3. “Analysis of Pesticides & Other Organic Chemicals in Environmental Samples” NEERI, Nagpur, December 6-10, 2010
4. “Quality Assurance and Quality Control in Laboratory Analysis”, sponsored by Central Pollution Control Board, NEERI, Nagpur, February 16 – 19, 2010.
5. “Advanced Instrumentation Techniques” sponsored by CPCB N Delhi, held at AI Division, NEERI, Nagpur during January 07-09, 2013.
6. “Advance Instrumental Analytical Techniques” sponsored by Central Pollution Control Board during September, 13-15, 2017, New Delhi.

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

Dr Ghanshyam L Bodhe has completed his B.E. (Electronics and Power) from Govt. College of Engineering, Amaravati in 1985, subsequently Maser of Technology from Indian Institute of Technology, Powai, Mumbai in 1987. He has obtained Ph.D. (Electronics Engg. and Technology) from Nagpur University, Nagpur in 1997. He is serving in Analytical Instruments Division, NEERI since 1987 in different capacities as a Scientist.

The significant contribution is in the field of S & T support in operation & maintenance of sophisticated analytical instruments, Environmental Impact Assessment – Noise and Vibration and Design and Development of intelligent micro-controller based electronic instruments for environmental monitoring. He is responsible for maintaining the state-of-art Central Analytical Facility comprising 25 major sophisticated analytical instruments including GS-MS, HRGC-MS. He is a Functional Area Expert (FAE) for Noise and Vibration component under NABET and was responsible for this component in thirty EIA projects undertaken by the institute. He has designed and developed several instruments and systems for monitoring and controlling of some environmental parameters. Major contributions include Development of Mobile Laboratory for Weather Parameters and Air Pollution monitoring. This laboratory was used under various CEIRA project for monitoring and assessment of data related to weather and air parameters. He has 28 publications in reputed national & international research journals, 37 research papers presented in national & international conferences, one contribution to book and organized about 30 training programmes on various environmental aspects. Attended International Scientific Instrument Technology Program as a Guest Researcher at Precision Instrument Development Center, National Science Council of Taiwan in July – Dec 2001.

The outcome of the sponsored R & D Project on “Development of compact RPL phosphor discs and reader system” is used by Defence establishments for monitoring of radiation exposure of its personnel working in the hazardous areas. He is looking after NABL accredited Pesticide Residue Laboratory which provide reliable and accurate data to be used by scientific community and decision makers for finalization of mitigation measures. Expertise on mobile/tower emissions and EMF generated by high voltage lines is being developed.

He is a member of BIS committee on “Standardization of Environmental Aspects of Electrical and Electronics Products”, Sectional Committee, ETD 43. His expertise is facilitating the BIS to prepare and establish more appropriate and technically viable standards for the Indian industry and consumers. On academic side, he is a professor to CSIR-AcSIR and recognized Ph.D./M.Tech. guide to Nagpur University and guided 01 Ph.D. and 12 M.Tech. by research students in the faculty of Electronics Engineering and Technology. He is a life member of Instrument Society of India, Indian Institute of Science, Bangalore and Acoustic Society of India,