

## Resume

**Name:** **Dr. Prathima B**

Assistant Professor

**Designation:**

Department of Civil Engineering

BMS College of Engineering, Bengaluru

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9632388995



### **Educational Qualification:**

Qualification	Branch	Year of Passing	Institution	University	Class
Ph.D	Area: Environmental Engineering	December, 2024	Indian Institute of Science, Bangalore	IISc, B'lore	8.5 (Course Work)
M.Tech	Environmental Engineering	July 2011	B M S College of Engineering, Bangalore	VTU, Belgaum	FCD (2 <sup>nd</sup> Rank)
B.E	Environmental Engineering	July 2004	S J C E , Mysore	VTU, Belgaum	FCD ( 4 <sup>th</sup> Rank)

### **Professional Experience:**

Organization	Designation	Roles & Responsibilities	Period
BMS College of Engineering, Bangalore	Assistant Professor	Teaching PG and UG students. Supervising/guiding PG projects	August 2011 to Till Date
WS Atkins India Pvt Ltd, Bangalore	Assistant Engineer	Designing of PHE & Fire services for High Rise Buildings, Residential Building, Commercial buildings, Shopping Malls & Hospitals etc,	October 2006 to June 2009
Town Municipal Council, Gundlupet, Chamarajnagar District (Govt of Karnataka)	Assistant Engineer	Solid Waste Management – Scientific Disposal	September 2005 to September 2006

J S S Polytechnic College, Nanjangud, Mysore District. (Collaboration with France Govt)	Lecturer	Teaching	September 2004 to August 2005
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#### **Additional Course completed:**

1. Completed online training of all eight modules of All India Council for Technical Education: National Initiative for Training of Technical Teachers (NITTTR) March 2025 Examination.
2. Online certification courses on “Environmental, Social and Governance (ESG)”, from June – August 2023, JSS Science and Technology University, Mysore.
3. SWAYAM NPTEL Course on “Sustainable Engineering Concepts and Life Cycle Analysis”, from July – Sep 2024, IIT, Kharagpur.
4. Internal Auditor Training Course on Environment Management Systems (Based on ISO 14001:2015 Standard) certified by Bureau Veritas (EMS/002/23/901/A/04).
5. Online Course era course on “Nanotechnology: A Maker’s Course” by Duke University, 2019, North Carolina State University and The University of North Carolina at Chapel Hill.
6. SWAYAM NPTEL course on “Electronic Waste Management – Issues and Challenges”, Feb – Mar 2018, IIT, Kharagpur.
7. Online Course era course on “Municipal Solid Waste Management in Developing Countries”, 2018 by École Polytechnique Fédérale de Lausanne.

#### **Research Profile Id’s:**

1. <https://scholar.google.com/citations?user=RZXRYp4AAAAJ&hl=en&authuser=2>
2. [ResearcherID: P-6200-2015](#)
3. [Scopus Author ID: 57209285808](#)
4. <https://orcid.org/0000-0003-3364-581X>

#### **Papers Published:**

1. **Prathima Basavaraju** ,Kalyani Kulkarni, and Sivakumar Babu G L (2025), “ Impact of Soil Particle Size Distribution on Zinc Immobilization Using Nano Zero Valent Iron” Journal of Hazardous, Toxic, and Radioactive Waste, Volume 29, Issue 2, <https://doi.org/10.1061/JHTRBP.HZENG-141>

2. **Prathima, B.,** Sivakumar Babu, G.L. (2025) “Integrated Framework for Sustainable Remediation of Soil Contamination in India: From Investigation to Implementation”. Journal of Indian Institute of Science (2025). <https://doi.org/10.1007/s41745-024-00456-2>
3. **B. Prathima,** Vikram Srinivasa Raghvan, Swati Soni, Sai Siva Gorthi, Sivakumar Babu G.L., (2024). “Sulfide-enhanced carboxymethyl cellulose stabilised nano zero-valent iron for chromium(VI) mitigation in water: Evidence from batch and column studies”, Journal of Water Process Engineering, Volume 66, 105832, ISSN 2214-7144. <https://doi.org/10.1016/j.jwpe.2024.105832>
4. **Prathima, B.,** Sivakumar Babu, G. L., Ullas, S., & Lokesh, H. K. (2023). Risk assessment of toxic metals and groundwater quality assessment in an industrial hotspot of Bengaluru, India – case study. Human and Ecological Risk Assessment: An International Journal, 29(5–6), 966–989. <https://doi.org/10.1080/10807039.2023.2223651>
5. Kalyani Kulkarni, **Prathima Basavaraju** and Sivakumar Babu (2023). Effect of Grain Size Distribution of Soil on Immobilization of Cadmium and Nickel in Contaminated Soil Using Nano Zerovalent Iron: A Factorial Design and Response Surface Methodology Approach. Journal of Hazardous, Toxic, and Radioactive Waste; 27:3. ASCE. <https://doi.org/10.1061/JHTRBP.HZENG-1195>
6. Ramaswamyreddy, S, **Prathima B,** Reshmidevi T V, and Nagesh M A, (2021). Effect of Water and Soil Quality on Crop Productivity. In: Leal Filho, W., Azul, A.M., Brandli, L., Lange Salvia, A., Wall, T. (eds) Clean Water and Sanitation. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. [https://doi.org/10.1007/978-3-319-70061-8\\_65-1](https://doi.org/10.1007/978-3-319-70061-8_65-1)
7. Sughosh P, **Prathima B,** Arunkumar M, Anusree N and Sivakumar Babu G.L. (2021) Remediation of typical municipal solid waste dumpsite in Bangalore city, Journal of Hazardous, Toxic, and Radioactive Waste; 25:1-11. ASCE. [https://doi.org/10.1061/\(ASCE\)HZ.2153-5515.000055](https://doi.org/10.1061/(ASCE)HZ.2153-5515.000055)
8. Manasa and **Prathima B** (2016). Treatability Studies On Biomethanated Spentwash From Distillery Using Advanced Oxidation Processes, The International Reviewer, ISSN 2395-1575, Volume 3, Issue 1, January - June 2016, pp. 15-18.
9. **Prathima B,** Praphulla Rao and Mangala, (2014). Removal of Chromium (VI) from Synthetic Solution using dead Spirulina Species”, International Journal of Innovations in Engineering and Technology (IJIET), ISSN: 2319 -1058, Volume 4 Issue 4, pp. 244-

10. Praveen T.H, K.R.Suresh, **Prathima.B** and Gulshan Sachdeva (2014). Development of desalination unit using solar still coupled with evacuated tubes for domestic use in rural areas”, Current Science, ISSN: 0011-3891, Volume 107, No.15, pp.1683 – 1693.
11. Spandana, Dr. K R Suresh and **Prathima B.** (2013). Developing a Soil Quality Index for Vrishabhavathi Command Area. International Journal of Engineering Research and Technology. Volume 2. No. 6 (June-2013). ESRSA Publications.
12. Spandana, Dr. K R Suresh and **Prathima B.** (2013). Developing an Irrigation Water Quality Index for Vrishabhavathi Command Area, International Journal of Engineering Research and Technology Volume 2. No. 6 (June-2013). ESRSA Publications.
13. **Prathima B** and Dr. C R Ramakrishnaiah (2012). Hexavalent Chromium Removal From Industrial Wastewater by Chemical Precipitation Method, International Journal of Engineering Research and Applications, ISSN 2248-9622, Volume 2, Issue 2 , pp. 599-603.
14. CR Ramakrishnaiah, and **B Prathima** (2011). Hexavalent chromium removal by chemical precipitation method: a comparative study” International Journal of Environmental Research and Development 1 (1), 41-49.

### Papers presented

1. Sivakumar Babu, G.L, **Prathima, B**, Kulkarni, K. (2024). “Unveiling Site Contamination: Comprehensive Investigation, Health Risk Assessment, and Management”. In: Agnihotri, A.K., Reddy, K.R., Bansal, A. (eds) Geoenvironmental Engineering. EGRWSE 2023. Lecture Notes in Civil Engineering, vol 508. Springer, Singapore.
2. **Prathima B**, G. L. Sivakumar Babu, Ramkumar N. (2023), “Effect of Nitrate and Ionic Strength on Hexavalent Chromium (VI) Removal from Aqueous Solution using CMC modified nZVI - Optimisation through Response Surface Methodology”, Proceedings of the 9ICEG 9th International Congress on Environmental Geotechnics 25-28 June, 2023 | Chania, Greece.
3. **Prathima B**, Sughosh P. and Sivakumar Babu G. L. (2021), “Study of heavy metals transport in the vadose zone of contaminated soil”, 3rd International Symposium on Coupled Phenomena in Environmental Geotechnics Kyoto, Japan.
4. **Prathima B**, Lokesh H. K and G. L. Sivakumar Babu (2020), Subsurface Soil Contamination and Remediation Strategy for Industrial Area of Bangalore,

Proceedings of Geoenvironment-2020 - Conference on Geoenvironment & Sustainability. IIT Delhi.

5. G.L. Sivakumar Babu , P Sughosh , **B. Prathima** , T G Parameswaran and N Anusree (2020), Approach for Bioremediation of Municipal Solid Waste Dumps, Proceedings of Geoenvironment-2020 International Seminar on Contaminated Sites, IIT Delhi.
6. P. Sughosh, N. Anusree, **B. Prathima**, G. L. Sivakumar Babu (2019), “Estimation of landfill Gas emissions and energy recovery potential from landfills of Bangalore and Mysore: A case study”, World environmental and water resources congress - 2019, ASCE.
7. Sadhan Kumar Ghosh, Biswajit Debnath, Anaya Ghosh, **Basavaraju Prathima**, Khushbu K. Birawat, "(2017), Status of Composting for OFMSW Treatment in Karnataka and West Bengal: Case Studies and Sustainability”, 7th IconSWM—ISWMAW 2017, Waste Valorisation and Recycling, Volume 2, Pages 225-236, Publisher - Springer, Singapore.
8. Khushb K Birawat and **Prathima B** and Dr. Savithri Bhat “Bioremediation of chromium contaminated soil using organic amendments- A case study” at State level Seminar and Exhibition, 2016, Vijayapura, India.
9. Khushb K Birawat and **Prathima B**, Dr. Savithri Bhat and Dr. Lakshmi Narayan, "Bioremediation of chromium contaminated soil using organic amendments- A novel approach to safeguard groundwater" at the International conference on Best practices in sustainable water, wastewater and energy management, 2016, Indian Institute of Science, Bangalore, India.
10. Khushb K Birawat and **Prathima B**, "Bioremediation of heavy metal contaminated sites using organic amendments- A review" at the "International Conference on Energy, Environment and Engineering, 2016”, Coimbatore Institute of Technology, Coimbatore, India.
11. Praveen T.H, K.R.Suresh, **Prathima.B** and Manjunath, “Treatment of Reverse Osmosis Rejected Water Using Solar Energy - A Case Study”, Proceedings of the International Conference MES 2015, pp.40-45.
12. Manasa and **Prathima B**, “Treatability studies on bio-methanated spent wash from distillery using advanced oxidation processes”. One Day National Conference - Indian Congress of Civil Engineering, December 2015, Acharya Institute of Technology, Bengaluru.
13. Pooja and **Prathima B**, “Removal of copper and Nickel ions from Aqueous solution

using Chitosan as an adsorbent”. One Day National Conference - Indian Congress of Civil Engineering, December 2015, Acharya Institute of Technology, Bengaluru.

14. **Prathima B**, Praphulla Rao and Mangala, “Biosorption of copper from waste water using spirulina species”. International Conference on Advances in Chemical Engineering (ICACE2015), December 20-22, 2015, NITK, Surathkal.
15. **Prathima B**, Praphulla Rao and Ramya , “Removal of Chromium from synthetic solution using Chitosan as an adsorbent based on Taguchi Method”. International Conference on Advances in Chemical Engineering (ICACE 2015), December 20-22, 2015, NITK, Surathkal.

**Total Number of M. Tech project Supervised: 22**

**Workshop Organized:**

1. Coordinator for One Day Workshop on ***"DROUGHT ASSESSMENT USING ADVANCED SCIENTIFIC TOOLS"***, organized by Department of Civil Engineering on 9<sup>th</sup> May 2014
2. Coordinator for Two day Workshop on ***" APPLICATION OF MODELLING TECHNIQUES IN ENVIRONMENTAL ENGINEERING"*** organized by Department of Civil Engineering on 4th and 5th July , 2014
3. Organizing Committee Member for ***"3RD INTERNATIONAL CONFERENCE ON MICRO PERSPECTIVES FOR DECENTRALISED ENERGY SUPPLY - MES 2015"***, held at BMSCE during 23rd to 25th April 2015.
4. Organizing Committee Member for ***"AWARENESS WORKSHOP ON OUTCOME BASED EDUCATION (OBE) AND ACCREDITATION FOR ENGINEERING COLLEGES IN KARNATAKA"*** was jointly organized by National Board of Accreditation (NBA) and Visvesvaraya Technological University, Belagavi, held at BMSCE on 16th April 2023.

**Faculty Development Programme/Workshops Attended:**

Sl No	Name of the Event	Venue	Date
1.	Faculty Orientation Programme	BMSCE, Bangalore	23 <sup>rd</sup> -28 <sup>th</sup> Jan, 2012
2.	Indo- US Seminar on Hazardous Waste Management Instruction Course on Hazardous Materials Management	BIT, Bangalore	27 <sup>th</sup> -31 <sup>st</sup> July,2012
3.	ISTE Sponsored one week training programme on Project Management	BMSCE, Bangalore	20 <sup>th</sup> -25 <sup>th</sup> Aug, 2012
4.	Technological Update on Advances in Chromatography and Environmental Analysis	BMSCE, Bangalore	15 <sup>th</sup> Sep, 2012
5.	National Workshop on Disaster Management in India	REVA ITM, Bangalore	6 <sup>th</sup> – 7 <sup>th</sup> Nov, 2012
6	One day Workshop on Urban Water Management	BMSCE, Bangalore	23 <sup>rd</sup> Mar, 2013
7	Identification of Slow Learners and Performance Enhancement	BMSCE, Bangalore	20 <sup>th</sup> Aug, 2013
8.	Faculty Orientation Programme	BMSCE, Bangalore	26 <sup>th</sup> Sep – 1 <sup>st</sup> Oct, 2013
9.	Workshop on Awareness of RoHS	IISc , Bangalore	10 <sup>th</sup> Jan,2014
10.	Two Day workshop on GIS and Modelling – Applications in Environmental Engineering	SJCE, Mysore	28 <sup>th</sup> –29 <sup>th</sup> March, 2014
11.	Two ISTE Workshop on Pedagogy for Effective use of ICT in Engineering Education conducted by IIT, Bombay	BMSCE, Bangalore	12 <sup>th</sup> June – 02 <sup>nd</sup> August, 2014
12	CEP Course on Renewable Energy for Rural Areas	IIT, Bombay	14 <sup>th</sup> – 16 <sup>th</sup> July, 2014
13	Two day Faculty development Programme on Outcome Based Education – Innovative Classroom practices	BMSIT, Bangalore	18 <sup>th</sup> -19 <sup>th</sup> Sep, 2014
14	Two Day Workshop on Sustainable Technologies for Educational Campuses	IISc, Bangalore	7 <sup>th</sup> – 8 <sup>th</sup> Nov, 2014
15	International Conference on Transformation Engineering Education	BMSCE, Bangalore	6 <sup>th</sup> – 8 <sup>th</sup> Jan, 2015
16	Five Day Training programme on “EMS in accordance with ISO 14001 – 2004	BMSCE, Bangalore	27 <sup>th</sup> – 31 <sup>st</sup> Jan, 2015

Sl No	Name of the Event	Venue	Date
17	3 <sup>rd</sup> International Conference On Micro Perspectives For Decentralized Energy Supply – MES 2015	BMSCE, Bangalore	23 <sup>rd</sup> – 25 <sup>th</sup> April, 2015
18	5 <sup>th</sup> International Conference on Solid Waste Management	IISc, Bangalore	25 <sup>th</sup> – 27 <sup>th</sup> Nov, 2015
19	International Conference on Advances in Chemical Engineering (ICACE 2015)	NITK, Surathkal	20 <sup>th</sup> – 22 <sup>nd</sup> Dec, 2015
20	Two-day State level workshop on OutcomesBased education: Teaching, Learning and Evaluation Sponsored by NAAC	BMSCE, Bangalore	15 <sup>th</sup> – 16 <sup>th</sup> Feb, 2016
21	One Week national level workshop on Environmental Management Framework	BMSCE, Bangalore	29 <sup>th</sup> Feb -04 <sup>th</sup> Mar, 2016
22	Two Week Course on “Fate and Transport of Contaminants In the Environment” by GIAN, MHRD	SJCE, Mysore	13 <sup>th</sup> June – 25 <sup>th</sup> June 2016
23	Online FDP on Green Energy	BMS College of Engineering	29 <sup>th</sup> June – 4 <sup>th</sup> July 2020
24	Online FDP on Climate Change and Carbon Issues (CCCI)	B.M.S College of Engineering	6 <sup>th</sup> – 10 <sup>th</sup> July 2020.
25	Online FDP on Waste Technology	B.M.S. College of Engineering.	23 <sup>rd</sup> Nov – 27 <sup>th</sup> Nov 2020
26	Online FDP on Environmental Geotechnology	University Institute Of Engineering And Technology	4 <sup>th</sup> Jan – 8 <sup>th</sup> Jan 2021
27	Online FDP on Waste Valorization towards a Sustainable Environment	National Institute of Technology Durgapur	14 <sup>th</sup> June – 18 <sup>th</sup> June 2021
28	Online FDP on Advances in Pollution Control Technologies and Sustainable Development	Malaviya National Institute of Technology	02 <sup>nd</sup> Aug – 06 <sup>th</sup> Aug 2021
29	Online -Understanding Environmental Laws for Better Environmental Management	Centre for Science and Environment, New Delhi.	17th May to 28th May 2022
30	Online - Sustainable Nanotechnologies SNT-2022	GMRIT, Andhrapradesh and NIT Warrnagal.	11th – 15th October 2022
31	Online: Urban Water bodies Management: Issues, Challenges, and Potential of Making Water Sensitive Cities	Centre for Science and Environment, New Delhi.	28th Sept - 14th Oct, 2022



Sl No	Name of the Event	Venue	Date
32	Online: Dumpsite Remediation and Landfill Management	Centre for Science and Environment, New Delhi	14th Oct - 21st Oct, 2022
33	Waste To Wealth Innovation,	National Institute Of Technical Teachers' Training & Research, Kolkata	02 <sup>nd</sup> Dec 2024 - 07 <sup>th</sup> Dec 2024
34	Empowering Educators: Leadership, Research, and Pedagogical Excellence,	B.M.S. College Of Engineering, Bengaluru	17 <sup>th</sup> Feb 2025 – 21 <sup>st</sup> Feb 2025

#### **Invited Lectures delivered:**

1. Delivered a talk on “Plastic Waste Management- Issues and Challenges” for the course PG Level Advanced Certification Programme in Sustainable Engineering and Smart Cities conducted by IISc, Bengaluru on 10.05.2025
2. Delivered a talk on “Sustainability and Life Cycle Assessment” for the course PG Level Advanced Certification Programme in Sustainable Engineering and Smart Cities conducted by IISc, Bengaluru on 17.05.2025.
3. Delivered a online talk on “Optimizing Research Visibility: Open Access Tools and Initiatives” for Sardar Patel Institute of Technology, Bombay on 28-02-2025.
4. Delivered a talk on “Solid Waste Management – Processing Plant, to Assistant Executive Engineers as a part of Capacity Building on SWM Rules and Integration of Digital Monitoring in SWM along with IEC and CB in State Institute of Urban Development on 29.09.2023.
5. Delivered a talk on “Safe laboratory protocols and Hazardous Waste Management” Environment Health and Safety (EHS), 28<sup>th</sup> and 29<sup>th</sup> March 2023 organized by Department of Biotechnology B M S College of Engineering, Bengaluru.
6. Delivered a talk on “Soil Pollution and remediation of solid waste dump sites” to newly appointed Environmental Engineer” by KPSC in State Institute of Urban Development on 17.06.2022.

#### **Additional Responsibilities at department level:**

1. M. Tech Environmental Engineering – Coordinator (Since 2012 – 2016)
2. RS and GIS Lab – Incharge (Since 2012 – 2018)
3. Environmental Engineering Lab -Incharge (Since 2023 – till date)
4. Department Academic Committee member (2024 – till date)

5. Department Accreditation Committee member (2024 – till date)

**Additional Responsibilities at Institute level:**

1. NIRF Core Committee member
2. Environmental Management Systems ISO 14001: 2015: Core committee Member
3. Centre for Innovation, Incubation & Entrepreneurship(CIIE) committee member and Innovation Ambassador
4. Digital Display Board: Coordinator

**Role played at Department Activities:**

1. Involved in PG CEE NBA SAR preparation
2. Involved in UG NBA – Criteria 4 preparation – 2013, 2021 and 2025
3. Prepared required documents/report required by VTU, TEQIP and IQAC.
4. Organized guest lectures and industrial visits for PG CEE students

**Achievements:**

1. Under KSCST 39th Series Project Programme SPP Grant, Got seed money of Rs.7.000/- for the PG Project. The project is awarded as the "**Best project of the year-2016**", by KSCST - 2015.
2. Won "**Best Practice Researcher Award**", at International Conference & Exhibition on Best Practices in Sustainable Water, Wastewater and Energy Management, IISc, Bangalore for the paper "Bio Remediation of Chromium Contaminated Soil – A Novel Approach to Safeguard Ground Water".
3. One of the team member for International Design Competition for the Rejuvenation of Badami Town Precinct, launched by Catalytic Think Tank Forum and earned a consolation prize money of **Rs .50,000/-**.

**Courses Handled:**

UG	PG (Environmental Engineering)
<ul style="list-style-type: none"><li>• Water Treatment Technology</li><li>• Wastewater Treatment</li><li>• Environmental Impact Assessment</li></ul>	<ul style="list-style-type: none"><li>• Applied Environmental Chemistry and Microbiology</li><li>• Solid Waste Engineering and Management</li><li>• Ecology and Environmental Impact Assessment</li></ul>

## UG

- Occupational Safety and Health Administration
- Solid Waste Management

## PG (Environmental Engineering)

- Occupational Safety and Health Administration
- Nonpoint sources pollution and its management
- Toxicology and Risk Assessment
- Environmental Geotechnology
- Operation and Maintenance of Environmental Facilities
- Numerical methods and Optimization Techniques
- Sustainability and Life Cycle Assessment
- Data Analysis using MS Excel
- Application of Advance Software Tools in Environmental Engineering
- Statistics and Computational Methods
- Water Quality Analysis Lab
- Wastewater Quality Analysis Lab
- Application of Advanced Software Tools in Environmental Engineering

## Media Coverage:

- <https://timesofindia.indiatimes.com/city/bengaluru/iisc-team-develops-nanomaterial-to-help-clean-up-chromium-contaminated-water/articleshow/113577486.cms>
- <https://www.newindianexpress.com/states/karnataka/2024/Sep/20/iisc-bengaluru-team-finds-nanomaterial-based-solution-to-treat-groundwater>
- <https://www.thehindu.com/news/national/karnataka/iisc-researchers-come-up-with-solutions-to-reduce-presence-of-heavy-metals-in-groundwater/article68659890.ece>
- <https://www.gktoday.in/iisc-develops-nanomaterial-to-clean-chromium-from-groundwater/>
- <https://www.latestly.com/agency-news/india-news-iisc-researchers-come-up-with-solution-to-reduce-presence-of-heavy-metals-in-groundwater-6280076.html>
- <https://www.devdiscourse.com/article/science-environment/3092709-innovative-nanomaterial-s-cmc-nzvi-shows-promise-in-tackling-groundwater-contamination>
- <https://www.techexplorist.com/nanomaterial-based-solution-chromium-mitigation-water/90114/>

- <https://www.azonano.com/news.aspx?newsID=41064>
- <https://m.economictimes.com/news/science/iisc-team-develops-nanoparticle-based-solution-to-reduce-heavy-metals-in-groundwater/articleshow/113497329.cms>
- <https://smartwatermagazine.com/news/indian-institute-science/nanoparticle-based-remediation-chromium-contaminated-water-shows-high>

I hereby declare that the information furnished above is true to the best of my knowledge and belief.

**Signature**

(Dr. Prathima B)

**Date:** 26.05.2025

**Place:** Bengaluru