

# CV



**Name** Dr. Misbah Bashir

**Qualification** **Doctorate in Civil and Environmental Engineering**  
Indian Institute of Technology (IIT),  
Mandi, India

**M.Tech in Civil Engineering**  
Lovely Professional University (LPU)  
Punjab, India

**B.Tech (Honours) in Civil Engineering**  
Lovely Professional University (LPU)  
Punjab, India

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**Spouse** Mr. Anzar Bashir Wani

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**Google scholar** [https://scholar.google.com/citations?hl=en&user=RRfBtIIAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=RRfBtIIAAAJ&view_op=list_works&sortby=pubdate)

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Academic record					
Exam Type	Subjects	College/School	University/Board	CGPA/ %	Passing Year
Ph.D.	Civil & Environmental Engineering	NA	Indian Institute of Technology, Mandi	9.08 CGPA	2022
M.Tech	Civil Engineering (Specialization in Environmental Engineering)	NA	Lovely Professional University	8.16 CGPA	2016
B. Tech (Honours)	Civil Engineering	NA	Lovely Professional University	8.16 CGPA	2015
12th	Physics, Chemistry, Mathematics, English and Functional English	New Convent	JKBOSE	85%	2010
10th	Mathematics, Science, Social Science, English, Hindi	New convent	JKBOSE	88%	2008

**Title of Ph.D. thesis:** Microbially Induced Calcite Precipitation for Stabilization and Solidification of Copper Loaded Biochar for Removal of Copper from Aqueous Solution

**Ph.D. Guide:** Prof. Ajit P Annachhatre and Dr. K V Uday

<b>Professional/Post-doctoral experience:</b>				
<b>Institute</b>	<b>Post Held/Holding</b>	<b>From</b>	<b>To</b>	<b>Duration</b>
Lovely Professional University (LPU)	Assistant Professor	21 <sup>st</sup> July 2016	17 <sup>th</sup> December 2018	2 years and 5 months
National Institute of Technology (NIT), Srinagar	Post Doctorate Fellow	January 2023	January 2024	1 year
Islamic University of Science and Technology (IUST), Kashmir	Assistant Professor-Guest Faculty	13 <sup>th</sup> March 2023	16 <sup>th</sup> October 2024	1 year and 6 months
Islamic University of Science and Technology (IUST), Kashmir	Assistant Professor	17 <sup>th</sup> October 2024	Till now	Currently working

### **Journal publications:**

1. **Misbah Bashir**, Uday K.V, and Ajit P Annachhatre. Microbially Induced Calcite Precipitation for Stabilization and Solidification of Copper Loaded Biochar. *International Journal of Environment and Waste Management* (Accepted).
2. **Misbah Bashir**, Manzoor Ahmad Ahanger, Khalid Muzamil Gani. (2024) Adsorptive microplastic removal using Pinus Roxburgii derived biochar– a waste residue of Himalayan Forests. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-024-35166-w>.
3. Chander Mohan, **Misbah Bashir**, Ajit P Annachhatre and Anil Kumar Dixit. (2024) Response Surface Modelling and Optimization for Copper Removal from Acid mine Drainage by Oxidized Himalayan Pine Needle Biochar. *AQUA Water infrastructure, Ecosystems and society*. <https://doi.org/10.2166/aqua.2024.161>
4. Muneeb Farooq, **Misbah Bashir**, Umair Gull, Muskaan Mukhtar, Khalid Muzamil Gani. (2024) Preliminary investigations on the performance and characterization of municipal wastewater sludge derived biochar-plastic composites - A resource-oriented solution to sludge and plastic waste. *Journal of Hazardous, Toxic, and Radioactive Waste (ASCE)*. Vol. 28 (3). **(Joint 1<sup>st</sup> Author and Editor's choice)**
5. **Misbah Bashir**, Chander Mohan., and Ajit P Annachhatre. (2023). Regeneration of copper loaded pine bark biochar using simultaneous bio-sulfide precipitation of copper. *AQUA Water infrastructure, Ecosystems and society*. Vol. 72 (5) doi: 10.2166/aqua.2023.067.
6. **Misbah Bashir**, Chander Mohan, Shivani Tyagi, and Ajit P Annachhatre. (2022). Copper Removal from Aqueous Solution using Chemical Precipitation and Adsorption by Himalayan Pine Forest Residue as Biochar. *Water Science and Technology*. Vol. 86 (3): 530-554.
7. **Misbah Bashir**, Tyagi, S., and Annachhatre, A.P. (2020). Adsorption of Copper from Aqueous Solution onto Agricultural Adsorbents: Kinetics and Isotherm studies. *Materials Today: Proceedings* 28 1833–1840.
8. Shivani Tyagi, **Misbah Bashir**, Chander Mohan, and Ajit P Annachhatre. (2022). Characterization of Pine Residues from Himalayan Region and its use as an Copper Adsorbent. *Water, Air and Soil pollution*, Springer 233(226).
9. Chander Mohan, **Misbah Bashir**, and Ajit Annachhatre. (2020). Anaerobic Treatment of Spent wash for Recovery of Clean Energy, *Materials Today: Proceedings*, vol. 32, part 4, pp. 928-935.
10. B.K. Shukla, **Misbah Bashir**, Sharma V. and Abhimanyu. (2020). Statistical Analysis of Water Quality Parameters of Domestic Wastewater in the City of Srinagar, Jammu & Kashmir, India- A case study. *Journal of Critical Reviews*. 7(3) pp: 1343-1349.
11. B Hubert, **Misbah Bashir**\* and Nasir H. (2018). Mathematical Modeling and Analysis of Domestic Wastewater Treatment in Phagwara Using Moving Bed Biofilm Reactor. *Ecology, Environment and Conservation*. 24(4) pp:1811-1818.
12. Shivani and **Misbah Bashir**.\*(2018). Case Study of Biogas Production from Various Feedstocks. *Ecology, Environment and Conservation*. 24(4) pp:1879-1884.
13. Humaib Nasir, **Misbah Bashir**\* and Prabhakar, D. (2019). Review of Global Warming: Case Study of Himalayan And Other Parts of North India. *Ecology, Environment and Conservation*. 25(1) pp: 395-400.
14. Piyush Jindal, **Misbah Bashir**\*. 2019. Wastewater Management in Health Care Facilities of Punjab. *Ecology, Environment and Conservation*. 25(1) pp: 300-304.

15. S.G. Kamilpalli, **Misbah Bashir\***, S Ganesh. (2017) Experimental Study of Replacement of Coarse Aggregates with Aluminum Caps. *International Journal of Mechanical Engineering and Technology*: Vol 8, pp: 1440-1445, ISSN: 0976-6359.

### **Journal publications in pipe line:**

1. **Misbah Bashir**, Chander Mohan, Mehnaza Akhter and Ajit P Annachhatre. Integrating Microbially Induced Calcite Precipitation into Natural and Engineered Systems: Applications and Insights. *Environmental Research* (Submitted and under review).
2. Khalid Muzamil Gani, Mozim Shafi, Ruby Mushtaq, Asif Farooq, Muneeb Farooq, Saheem Rasool, Farhat Un Nisa, **Misbah Bashir**, Reyaz Hussain. Cigarette butt pollution and its impact on the environment – A comprehensive review.

### **Conference papers/presentations:**

1. **Misbah Bashir**. (2024, November 07-08). **Keynote presenter** on Exploring Engineered MICP applications for Sustainable Environmental Protection. *World Congress on Recycling and Climate Change*, Rome, Italy.
2. **Misbah Bashir**, Chander Mohan, and Ajit P Annachhatre. (2022, March 25-26) Adsorption and Regeneration of Pine Bark Biochar using Bio-sulfide Precipitation of Copper [Paper presentation]. *1st International conference on Advances in Water Treatment and Management (ICAWTM-22)*. Pandit Deendayal Energy University, Gandhinagar, Gujarat, India.
3. **Misbah Bashir**, Shivani Tyagi, and Ajit Annachhatre. (2020, May 29-30) Adsorption of copper from aqueous solution onto agricultural Adsorbents: Kinetics and isotherm studies [Paper presentation]. *International Conference on Aspects of Material Science and Engineering (ICAMSE-2020)*. Panjab University, Chandigarh, India. **Awarded Best Research Paper**
4. **Misbah Bashir** (2020, Feb 19-21) Anaerobic Treatment of Spentwash for Recovery of Clean Energy. *3rd International conference on Innovative technologies for clean and sustainable development*” organized by National Institute of Technical Teachers Training and Research, Chandigarh, India.
5. **Misbah Bashir** 2018 “Domestic Wastewater Analyses and Design Consideration of a Treatment Unit in Srinagar, J&K, India”, *2nd International Conference on Innovative Research in Science, Technology and Management, National University of Singapore*, Singapore.
6. **Misbah Bashir**, B.K. Shukla, R.K. Vaidyanathan, and M.J. Al-Haj 2018. Study on Physico-Chemical Characteristics of Surface Water in Srinagar, Jammu and Kashmir, India, *Proceedings of 12<sup>th</sup> IndiaCom, 5<sup>th</sup> International Conference on Computing for Sustainable Global Development*: 4580-4583.
7. **Misbah Bashir**, Owais Nazir, M.J. Al-Haj, Ansara Jeelani, B.K. Shukla and R.K. Vaidyanathan 2018. Design of Energy Efficient Residential Building in a Tropical Region using Sustainable Techniques, *Proceedings of 12<sup>th</sup> IndiaCom, 5<sup>th</sup> International Conference on Computing for Sustainable Global Development*: 4599-4602.
8. Ansara Jeelani, **Misbah Bashir\*** and B.K. Shukla 2018. Physico-Chemical Analysis and Design of Proper Management Technique for Solid Waste Produced in Srinagar City, *Proceedings of 12<sup>th</sup> IndiaCom, 5<sup>th</sup> International Conference on Computing for Sustainable Global Development*: 4603-4606.
9. B.K. Shukla and **Misbah Bashir\*** 2018. Study on Physico-chemical Characteristics and Correlation Analysis of Domestic Wastewater in Srinagar, Jammu and Kashmir, India, *Proceedings of 12<sup>th</sup> IndiaCom, 5<sup>th</sup> International Conference on Computing for Sustainable Global Development*: 4607-4610.
10. Piyush Jindal, **Misbah Bashir\*** 2018. Wastewater Management in Health Care Facilities of Punjab-A review. *International Conference on Sustainable Technologies for Intelligent Water Management*.
11. B.K. Shukla, M.K. Sen, P. Pandey, R.K. Vaidyanathan and **Misbah Bashir**. 2018 Performance Characteristics of Multiple Plunging Surface Jet Aerator with Variable Jet Length, *Proceedings of 12<sup>th</sup> IndiaCom, 5<sup>th</sup> International Conference on Computing for Sustainable Global Development*: 4575-4579.
12. **Misbah Bashir** and Pooja Sinha 2016. Current Trends in Domestic Wastewater and its Analyses in Srinagar City. *National Conference on Technical Advancements in Civil Engineering*. ISBN: 978-93-85777-52-3.
13. **Misbah Bashir** 2017. Experimental Study of Replacement of Coarse Aggregates with Aluminum Caps. *International Conference on Recent Advances in Mechanical Engineering*, Lovely Professional

University.

### **Training / Symposium / Workshop:**

1. Training during partner conference with **University of Huddersfield** 2024.
2. Poster on Removal of Microplastics from Water Bodies using Sustainable Forest by-products. TECHEXPO 2024- Islamic University of Science & Technology, J&K, India.
3. Poster on Heavy metal removal using pine biochar and modified pine residue biochar. TECHEXPO 2023- Islamic University of Science & Technology, J&K, India.
4. Workshop given on Solid waste management- An initiative towards Swatch Bharat, **Lovely Professional University** 2018.
5. Workshop on Quantity Surveying **Lovely Professional University** 2018.
6. Training program on Punjab Energy Conservation Building Code **Lovely Professional University** 2017.
7. Workshop on Quantity Surveying **Lovely Professional University** 2017.
8. Workshop on Bridge Design by Civil Simplified **Lovely Professional University** 2014.

### **Professional Licensure and certifications:**

1. International reviewer: **Publons** 2024; **Asian Journal of Environment & Ecology** 2024; **Asian Journal of Advances in Agricultural Research** 2024; **Asian Journal of Research in Animal & Veterinary Sciences** 2024
2. Advisory editorial board for **Kardan Journal of Engineering & Technology** since 2019
3. Member of Indian Science Congress Association (An Integral body of Department of Science & Technology, Ministry of Science & technology, Govt. of India), 2018
4. Member of The Institution of Engineering and Technology (IET), 2018

### **Graduation student advising as an Assistant Professor:**

#### *Capstone Projects*

##### *(B.Tech):*

1. Replacement of coarse aggregates with brick ballast and ceramic tiles, 2017
2. Experimental study on partial replacement of coarse aggregates with aluminum caps, 2017
3. Partial replacement of coarse aggregate with coconut shell, 2017

#### *Thesis Projects*

##### *(M.Tech):*

1. Experimental investigation on the potential of municipal sewage waste to produce biogas, 2017
2. Life cycle assessment of a commercial building, 2017
3. Mathematical modeling and analysis of domestic wastewater treatment in Phagwara using moving bed biofilm reactor, 2018
4. Biogas production from agricultural wastes in Himachal Pradesh, 2018
5. Treatment of leachate generated from municipal solid waste of the Jalandhar city, 2018
6. Liquid waste management in health care facilities of Punjab, 2018

## Courses taught/teaching as an Assistant Professor

Course code	Course name	Institute	Year
CIV-880	Renewable Energy System	LPU	2016
CIV-559	Energy, Environment and Climate Change	LPU	2017/2016
CIV-515	Environmental Chemistry and Microbiology	LPU	2017
CIVP-507	Air and Noise Pollution Engineering	LPU	2017
CIV-238	Water Supply and Wastewater Engineering	LPU	2017/2018
CIV-345	Energy, Environment and Society	LPU	2018
CIV-208/CIV-413T	Fluid Mechanics	LPU/IUST	2018/2024
CIV-515T	Structural Engineering	IUST	2023
CIV-EO6T	Hydropower Engineering	IUST	2023
CIV-712T	Irrigation and Hydraulic Structures	IUST	2023
CIV-E06T	Green Buildings	IUST	2023
CIV-E05T	Solid Waste Management	IUST	2024
CIV-E18T	Environment Impact Assessment and Audit	IUST	2024

### References:

1) Prof. Ajit P Annachhatre  
Emeritus Professor  
Asian Institute of Technology  
Thailand  
-Adjunct Professor  
Indian Institute of Technology, Mumbai  
India  
-Visiting Professor (2018-2022)  
Indian Institute of Technology, Mandi  
India  
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2) Dr. K V Uday  
Associate Professor  
Indian Institute of Technology, Mandi  
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