

## Resume

### **Deepak Kumar Prasad, Ph.D.**

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### Work Experience

- Research Associate, [Indian Institute of Technology Delhi](#), New Delhi, India, Jan 2021 – Present, under the project Local Treatment of Urban Sewage Streams for Healthy Reuse (LOTUS) (INDO-DUTCH Joint project).
  - Operating and Analysing Activated Sludge Process (ASP) reactor for treating Barapullah drain water for the removal of emerging contaminants.

### Academic Qualifications

- Ph.D. (Doctor of Philosophy), Biochemical Engineering and Biotechnology, [Indian Institute of Technology Delhi](#), New Delhi, India, 2015-2021.  
*Thesis title:* Monitoring and assessing the risks of emerging contaminants in the river Ganga – a comprehensive study.  
Supervisor: [Prof. Shaikh Ziauddin Ahammad](#)
- M.Sc. (Master of Science), Biotechnology, [University of Hyderabad](#), Hyderabad, 2012-2014, CGPA - 8.30.  
*Thesis title:* Effect of protein concentration on the mechanism of fibrillation.  
Supervisor: [Dr. N. Prakash Prabhu](#)
- B.Sc. (Bachelor of Science) (*Honours*), Botany, [Sri Venkateswara College](#), University of Delhi, New Delhi, 2008-2011, Percentage: 67.6 %.

### Skills and Expertise

**Technical:** Microbiology Techniques (isolation, identification, maintain culture), Antibiotic Resistance, qPCR, DNA extraction, Gel Electrophoresis, Water Quality, Environmental Monitoring, Sequencing, Metagenomics, Pharmaceutical and personal care products, Risk Assessment

**Analytical (*Hands on*):** PCR, qPCR, QIAgility, MALDI Biotyper, TOC analyzer, Ion Chromatography, LC-MS, MinIon Sequencer

**Language proficiency:** English (full professional), Hindi (Native, Bilingual)

### Publications

- Prasad, D.K., Ahammad, Sk Z., Monitoring and assessing the risk of emerging contaminants (heavy metals, ARB, ARGs and PPCPs) in the river Ganga. (Under preparation)
- Prasad, D.K., Srivastav, A, Marz, M., Ahammad, Sk Z., Metagenomics analysis of the Ganga river sediment for bacterial communities and antibiotic resistance genes. (Under preparation)
- Prasad, D.K., Srivastav, A, Marz, M., Ahammad, Sk Z., Optimization of DNA isolation from river sediments for Nanopore Sequencing. (Under preparation)
- Kiran Kumar, E., Prasad, D.K., Prakash Prabhu, N., 2017. Concentration dependent switch in the kinetic pathway of lysozyme fibrillation: Spectroscopic and microscopic analysis. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Volume 183, 5 August 2017, Pages 187-194.  
(DOI: <https://doi.org/10.1016/j.saa.2017.04.011>)

### **Scholastic Achievements**

- Research work about the abundance of antimicrobial resistance in the river Ganga featured in **The New York Times** (<https://www.nytimes.com/2019/12/23/health/ganges-drug-resistant-bacteria.html>) (December 2019).
- Visited Friedrich-Schiller University, Jena, Germany (February 2020 – April 2020) for Nanolog project under BMBF-DBT Cooperative Science Program.
- Qualified CSIR/UGC NET-JRF in 2014 with All India Rank 74.
- Qualified Graduate Aptitude Test in Engineering (GATE) in Biotechnology 2014 with GATE score of 601 and All India Rank 196 (98.5 percentile).
- Qualified Combined Entrance Examination for Biotechnology, 2012-2013.

### **Conferences and Workshop**

- Participated in Workshop on Nanopore Sequencing: Adventures in Metagenomics and Antimicrobial Resistance held at IIT Delhi under BMBF-DBT Cooperative Science Program, India, November 2019.
- Oral Presentation on “Development of an AMR map of the river Ganga” in 5<sup>th</sup> International Symposium on the Environmental Dimension of Antibiotic Resistance held on 9-14 June 2019, Hong Kong.
- Poster presentation in Bescon 2017 (Biological Engineering in 21<sup>st</sup> century), held on 8-9 September 2017 at NSIT, Delhi.
- Participated in 82<sup>nd</sup> Annual Meeting of the Society of Biological Chemists (India) and International Conference on Genome: Mechanism and Function, held on 2<sup>nd</sup> December, 2013, at University of Hyderabad, Hyderabad.
- Participated in the University of Hyderabad –Academia Sinica Joint Workshop on Frontiers in Biological Sciences, held on 8<sup>th</sup> April 2013, at University of Hyderabad, Hyderabad.
- Participated in “National Conference on Ecology and Environment Management: Indian Scenario” held on 24<sup>th</sup> February 2011 at Sri Venkateswara College, University of Delhi.

### **References:**

#### **Prof. Shaikh Ziauddin Ahammad**

Associate Professor

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#### **Prof. T.R. Sreekrishnan**

Professor

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