UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY

PANJAB UNIVERSITY, CHANDIGARH

FACULTY PROFILE

1. **Name:** **Dr Neha Bhardwaj**
2. **Designation:** **Inspire Faculty**
3. **Date of Birth:** **21.10.1989**
4. **Phone:** **91-9466840223 (M)**
5. **E-mail id:** **nehavashisht1989@gmail.com**
6. **Educational Background:**

Degree	Subject	University	Year
PhD	Engineering Sciences (Bionanotechnology)	AcSIR-CSIO	2018
M.Tech	Biotechnology	Kurukshetra University, Kurukshetra	2013
B.Tech	Biotechnology	Kurukshetra University, Kurukshetra	2011

7. **Research Areas:** Nanotechnology and Microbiology in the areas of Food and Health sector

8. **List of Publications:**

1. **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Deepanshu Bhatt, Dong Kwon Lim, Ki-Hyun Kim, Akash Deep: *Optical detection of waterborne pathogens using nanomaterials*. TrAC Trends in Analytical Chemistry 02/2019; 113., DOI:10.1016/j.trac.2019.02.019
2. **Neha Bhardwaj**, Sanjeev Kumar, Deepanshu Bhatt, Satish K Tuteja, Ki-Hyun Kim, Akash Deep: *Highly Sensitive Optical Biosensing of Staphylococcus aureus with an Antibody/Metal-Organic Framework Bioconjugate*. Analytical methods 01/2019; 11(7)., DOI:10.1039/C8AY02476F
3. Jyotsana Mehta, Sarita Dhaka, **Neha Bhardwaj**, Ashok K. Paul, Siddavattam Dayananda, Sung-Eun Lee, Ki-Hyun Kim, Akash Deep: *Application of an Enzyme Encapsulated Metal-Organic Framework Composite for Convenient Sensing and Degradation of Parathion*. DOI:10.1016/j.snb.2019.03.116
4. Sanjeev Kumar, **Neha Bhardwaj**, Rajnish Kaur, Jyotsana Mehta, Amit L. Sharma, Ki-Hyun Kim, Akash Deep, Sanjeev Bhardwaj: *An overview of different strategies to introduce conductivity in metal-organic frameworks and miscellaneous applications thereof*. Journal of Materials Chemistry A 07/2018; 6(3)., DOI:10.1039/C8TA04220A

5. **Neha Bhardwaj**, Satish Kumar Pandey, Jyotsana Mehta, Sanjeev Kumar, Ki-Hyun Kim, Akash Deep: *Bioactive Nano Metal-Organic Frameworks as Antimicrobials Against Gram-Positive and Gram-Negative Bacteria*. Toxicology Research 05/2018; 7(5)., DOI:10.1039/C8TX00087E
6. **Neha Bhardwaj**, Sanjeev Kumar Bhardwaj, Jyotsana Mehta, Ki-Hyun Kim, Akash Deep: *MOF-Bacteriophage Biosensor for Highly Sensitive and Specific Detection of S. aureus*. ACS Applied Materials & Interfaces 09/2017; 9(39)., DOI:10.1021/acsami.7b07818
7. **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Manoj K. Nayak, Jyotsana Mehta, Ki-Hyun Kim, Akash Deep: *Fluorescent Nanobiosensors for the Targeted Detection of Foodborne Bacteria*. TrAC Trends in Analytical Chemistry 09/2017; 97., DOI:10.1016/j.trac.2017.09.010
8. Sanjeev Kumar Bhardwaj, Amit L. Sharma, **Neha Bhardwaj**, Manil Kukkar, Atal A.S. Gill, Ki-Hyun Kim, Akash Deep: *TCNQ-doped Cu-metal organic framework as a novel conductometric immunosensing platform for the quantification of prostate cancer antigen*. Sensors and Actuators B Chemical 03/2017; 240:10-17., DOI:10.1016/j.snb.2016.08.138
9. Jyotsana Mehta, **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Satish K. Tuteja, Priya Vinayak, A.K. Paul, Ki-Hyun Kim, Akash Deep: *Graphene quantum dot modified screen printed immunosensor for the determination of parathion*. Analytical Biochemistry 02/2017; 523., DOI:10.1016/j.ab.2017.01.026
10. **Neha Bhardwaj**, Sanjeev Bhardwaj, Jyotsana Mehta, Ki-Hyun Kim, Akash Deep: *Highly sensitive detection of dipicolinic acid with a water-dispersible terbium-metal organic framework*. Biosensors & Bioelectronics 12/2016; 86:799-804., DOI:10.1016/j.bios.2016,07.063
11. **Neha Bhardwaj**, Sanjeev Kumar Bhardwaj, Jyotsana Mehta, Manoj Kumar Nayak, Akash Deep: *Bacteriophage Conjugated IRMOF-3 as a Novel Opto-Sensor for S. arlettae*. New Journal of Chemistry 07/2016; 40(9)., DOI:10.1039/C6NJ00899B
12. **Neha Bhardwaj**, Sanjeev Bhardwaj, Jyotsana Mehta, Ki-Hyun Kim, Akash Deep: *Highly Sensitive Detection of Dipicolinic Acid with a Water-Dispersible Terbium-Metal Organic Framework*. Biosensors & Bioelectronics 07/2016; 86., DOI:10.1016/j.bios.2016.07.063
13. Jyotsana Mehta, **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Ki-Hyun Kim, Akash Deep: *Recent advances in enzyme immobilization techniques: Metal-organic frameworks as novel substrates*. Coordination Chemistry Reviews 05/2016; 322., DOI:10.1016/j.ccr.2016.05.007
14. **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Jyotsana Mehta, Girish C. Mohanta, Akash Deep: *Bacteriophage Immobilized Graphene Electrodes for Impedimetric Sensing of Bacteria (S. arlettae)*. Analytical Biochemistry 04/2016; 505., DOI:10.1016/j.ab.2016.04.008
15. Jyotsana Mehta, Sanjeev K. Bhardwaj, **Neha Bhardwaj**, A. K. Paul, Pawan Kumar, Ki-Hyun Kim, Akash Deep: *Progress in the biosensing techniques for trace-level heavy metals*. Biotechnology Advances 01/2016; 34(1):47-60., DOI:10.1016/j.biotechadv.2015.12.001
16. Sanjeev K. Bhardwaj, **Neha Bhardwaj**, Girish C Mohanta, Pawan Kumar, Amit L Sharma, Ki-Hyun Kim, Akash Deep: *Immunosensing of Atrazine with Antibody-Functionalized Cu-MOF Conducting Thin Films*. ACS Applied Materials & Interfaces 12/2015; 7(47):26124-26130., DOI:10.1021/acsami.5b07692
17. Sanjeev K. Bhardwaj, **Neha Bhardwaj**, Manil Kukkar, Amit L. Sharma, Ki-Hyun Kim, Akash Deep: *Formation of High-Purity Indium Oxide Nanoparticles and Their Application to Sensitive Detection of Ammonia*. Sensors 12/2015; 15(12):31930-31938., DOI:10.3390/s151229895
18. **Neha Bhardwaj**, Sanjeev K. Bhardwaj, Akash Deep, Swati Dahiya, Sanjay Kapoor: *Lytic Bacteriophages as Biocontrol Agents of Foodborne Pathogens*. Asian Journal of Animal and Veterinary Advances 11/2015; 10(11):708-723., DOI:10.3923/ajava.2015.708.723
19. Prasad Minakshi, Ranjan, Neelam Pandey, Dahiya, Sandip Khurana, **Neha Bhardwaj**, Sanjeev Bhardwaj, Gaya Prasad: *Predominance of G10 Genotype of Rotavirus in Diarrheic Buffalo Calves:*

A Potential Threat for Animal to Human Zoonotic Transmission. Advances in Animal and Veterinary Sciences 04/2015; 3(1S):16-21., DOI:10.14737/journal.aavs/2015/3.1s.16.21

20. Swati Dahiya, **Neha Bhardwaj**, Sanjeev Bhardwaj, Jyotsana Mehta, Arun Sehgal, Minakshi Prasad: *Silver Nanoparticles Embedded Photosensitive Silicon as Catheter Materials*. Advances in Animal and Veterinary Sciences 03/2015; 3(1):10., DOI:10.14737/journal.aavs/2015/3.1s.10.15
21. **Neha Bhardwaj**, Sanjeev Bhardwaj, Pooja Devi, Swati Dahiya, M.L. Singla, C. Ghanshyam, M. Prasad: *Phage Immobilized Antibacterial Silica Nanoplatform: Application against Bacterial Infections*. Advances in Animal and Veterinary Sciences 03/2015; 3(1):1., DOI:10.14737/journal.aavs/2015/3.1s.1.9
22. Prasad Minakshi, Koushlesh Ranjan, Neelam Pandey1 Swati Dahiya, Sandip Khurana, **Neha Bhardwaj**, Sanjeev Bhardwaj, Gaya Prasad: *Predominance of G10 Genotype of Rotavirus in Diarrheic Buffalo Calves: A Potential Threat for Animal to Human Zoonotic Transmission*. Advances in Animal and Veterinary Sciences 01/2015; 3(1s):16-21.
23. Akash Deep, Mohit Saraf, **Neha**, Sanjeev Kumar Bhardwaj, Amit L Sharma: *Styrene Sulphonic Acid Doped Polyaniline Based Immunosensor for Highly Sensitive Impedimetric Sensing of Atrazine*. Electrochimica Acta 09/2014;, DOI:10.1016/j.electacta.2014.09.048
24. Swati Dahiya, **Neha Sharma**, Sanjeev Bhardwaj, Pooja Sharma: *Staphylococcus arlettae strain SDKU6 16S ribosomal RNA gene, partial sequence*.

9. Ongoing Project:

S. No.	Funding Agency	Title	Duration
1.	DST sponsored project under INSPIRE FACULTY scheme	Synthesis and Application of Novel Fluorescent Molecular Probes for Food Toxins	2019-2024