

# SHIVANI KOSHTHA

ASSISTANT PROFESSOR

Department of Civil Engineering  
Harcourt Butler Technical University  
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## EDUCATIONAL QUALIFICATION

Examination	Board/University	School/College	Year of Passing	Percentage/CPI
<b>Ph.D</b>	HBTU, Kanpur	HBTU, Kanpur	Ongoing	-
<b>M.Tech.</b> Environmental Engineering and Management	Indian Institute of Technology, Kharagpur	Indian Institute of Technology, Kharagpur	2021	8.88
<b>B.Tech.</b> Civil Engineering	Dr. A.P.J. Abdul Kalam Technical University	Harcourt Butler Technological Institute (HBTI), Kanpur	2017	77.34
<b>Intermediate</b>	Council For the Indian School Certificate Examinations	Mother Teresa Mission Higher Secondary School, Kanpur	2012	81.75
<b>High School</b>	Council For the Indian School Certificate Examinations	Mother Teresa Mission Higher Secondary School, Kanpur	2010	90.60

## SPECIALISATION

Environmental Engineering and Management

**M. TECH. THESIS:** *Solving Chemical Equilibria Problems using “Visual MINTEQ”.*

The thesis involves the study of the concentration of various contaminants of ground water like Arsenic, Fluoride etc. and their various chemical species. As the concentration of all the species and their interaction with each other is very difficult to calculate, thus the report describes the use of software i.e. “Visual MINTEQ” to solve such real-life complex equilibria problems.

**B. TECH. PROJECT:** *Geosynthetic Materials in Road and Highway Construction.*

Use of Geosynthetic Materials for pavement construction to increase the compressive strength of soil in Road and Highway Construction.

**INTERNSHIP:** *Internship at Uttar Pradesh Jal Nigam, Agra.*

Training on 144 mld capacity Advanced Water Treatment Plant at Sikandra, Agra, with emphasis on following topics:

- Investigation on Yamuna Raw Water and Treated Water Qualities.
- Performance Evaluation of Moving Bed Biological Reactor (MBBR).
- System Details and Operation of Ultrafiltration (UF) membrane units.

## AREAS OF INTEREST

- Waste Water Engineering
- Water Supply Engineering
- Design of Environmental Facilities
- Solid Waste Management
- Air Quality Management

## RESEARCH AREAS

- Contamination of Land and Water
- Advance Waste Water Treatment
- Modelling of Complex Environmental Problems and Solving it with the help of “Visual MINTEQ”.
- Remote Sensing application in Environmental Engineering.
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## TEACHING

- Environmental Engineering
- Irrigation and Hydraulic Design
- Transportation Engineering
- Construction and Contract Management
- Environmental Chemistry and Microbiology
- Engineering Graphics
- Environment and Ecology

## CONFERENCES

- Paper Presented on “Study of the equilibrium concentration of various chemical species present in contaminated water using Visual MINTEQ” in International Conference CHEMCON-2022, organized by Department of Chemical Engineering, HBTU Kanpur, during 27-30 December 2022.
- Paper Presented by M.Tech scholar Chandra Mohan on “Effect of Automotive Emissions on Kanpur City’s Air Quality” in International Conference CHEM-TECHNOVA 2023, organized by Department of Chemical Engineering, HBTU Kanpur, during 26-27 May 2023.
- Paper Presented by M.Tech scholar Chandra Mohan on “Impacts of vehicular emissions on air quality in Kanpur City” in International Conference on Creative and Innovative Solution in Civil Engineering organized by MNIT, Jaipur, during 11-12 August 2023.
- Paper Presented by B.Tech scholar Snehil Singh on “Physiochemical investigation of Drinking water in Kanpur” in International Conference Recent Advances in Water Purification and Waste Water Treatment, organized by Department of Chemical Engineering, HBTU Kanpur & InDA, during 29-30 November 2023.
- Paper Presented during technical session on "River Ecology: Mapping and Modelling" for the abstract titled "Environmental Flow Requirement for a Critical Reach of Beas River" at the 4th International Conference on River Corridor Research and Management (RCRM-2024) jointly organized by the Indian Institute of Technology Guwahati and the Indian Institute of Technology, Jammu held from March 7th to 9th 2024.

## M.TECH THESIS SUPERVISED -

S.N	YEAR	TITLE OF PROJECT	STUDENTS
1	2022	Statistical Analysis of Air Quality in Lucknow City	Km Manshi
2	2023	Impacts of Vehicular Emission on Air Quality in Kanpur City	Chandra Mohan

## B. TECH PROJECT SUPERVISED - 1

S.N	YEAR	TITLE OF PROJECT	STUDENTS
1	2023	Physiochemical investigation of Drinking water in Kanpur	Himanshu Yadav Mayank Yadav Snehil Singh Tarun Kumar Singh

## CHAIRMANSHIPS AT NATIONAL OR INTERNATIONAL CONFERENCE/ SEMINAR

S. No.	Title of Lecture/ Session	Title of Conference/ Seminar etc.	Date(s) of the event	Organised by	International/ National
1.	“Sustainability in Chemical processes through Digitalization, Artificial Intelligence and Green Chemistry”	CHEMCON-2022	27 <sup>th</sup> -30 <sup>th</sup> December, 2022	Department of Chemical Engineering, HBTU Kanpur	International
2.	International Workshop on “Advances in Water Purification & Waste Water Treatment”	International Workshop on “Advances in Water Purification & Waste Water Treatment	18 <sup>th</sup> & 19 <sup>th</sup> November, 2022	HBTU & InDA	International
3.	International Conference on CHEM-TECHNOVA 2023	CHEM-TECHNOVA, 2023	26 <sup>th</sup> -27 <sup>th</sup> May, 2023	IChE Student Chapter & HBTU	International
4.	A two-day workshop on “Recent Advances in Water Purification and Waste Water Treatment”	A two-day workshop on “Recent Advances in Water Purification and Waste Water Treatment”	29 <sup>th</sup> -30 <sup>th</sup> November, 2023	HBTU & InDA	International

## WORKSHOPS/FDP/SEMINARS/WEBINARS ATTENDED

1. Participated in the online training on "Advances in Teaching and Research in the Field of Disaster Resilience and Green Technology for Sustainable Development Goals" organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration with Amity University during 06<sup>th</sup> June to 10<sup>th</sup> June, 2022.

2. Participated and attended in one-week Faculty Development Program (FDP) on ‘Hands-on Training Program on Tools & Techniques of Experimental Hydrology organized by Department of Hydrology Indian Institute of Technology – Roorkee in association with Amity University during 24<sup>th</sup> May to 30<sup>th</sup> May 2022.
3. Participated in two weeks online Faculty Development Programme on “Research Methodology and Authoring Reviewing Manuscripts” jointly organised by Electronics & ICT Academics MNIT Jaipur, NIT Patna, IITDM Jabalpur & IIT Roorkee during 22<sup>nd</sup> July -05<sup>th</sup> August, 2022.
4. Participated in FDP on Advancements in Concrete Technology and Construction Management organized by NIT Warangal during 22<sup>nd</sup> - 26<sup>th</sup> August, 2022.
5. Participated in one-week online Faculty Development Program on “Innovative Teaching and Learning Pedagogy” organised by Research and Journal Committee and IQAC, St. Paul Institute of Professional Studies Indore (M.P), Research Foundation of India & RFI-CARE during 01<sup>th</sup> - 08<sup>th</sup> April, 2023.
6. Participated in Seminar on “Celebrating National Technology Day- Emerging AR/VR Technology for Immersive & Interactive Learning Environment” organized by DELNET-Developing Library Network on 11<sup>th</sup> May,2023.
7. Participated in International e - Seminar on “Sports & Higher education and the road map of sustainable development goals (SDGs)” organized by V.D (Varun Dhaka) Institute of Technology on 13<sup>th</sup> May,2023.
8. Participated in Seminar on “Remaining Life Analysis for an Uninterrupted Structural Performance” organized by Ultra Tech Cement Ltd. on 20<sup>th</sup> May,2023.
9. Participated in International Webinar on “Chipko Movement, Sunderlal Bahuguna and the challenges of Contemporary World” organized by Vishwanedam Centre for Asian Blossoming, Puducherry and Chennai on 21<sup>th</sup> May,2023.
10. Participated in one-week Short-Term Course on “Prospects of Infrastructure Development in the Construction Sector” organised by Department of Civil Engineering, Dr. B.R Ambedkar National Institute of Technology, Jalandhar during 22<sup>nd</sup> – 26<sup>th</sup> May, 2023.
11. Participated in Seminar on “Engineering and Doctoring of Structural Materials and Structures” organized by Ultra Tech Cement Ltd. on 27<sup>th</sup> May, 2023.
12. Participated in the 5-day hybrid capacity building workshop on the theme “Decarbonising India’s Transportation System” organized by IIT Kharagpur and ITF, OECD (Paris) from 19 June to 23 June 2023.
13. Participated in five day FDP on “Inculcating Universal Human Values in Technical Education” organised by AICTE during 12<sup>th</sup> - 16<sup>th</sup> June, 2023.
14. Participated in seminar on “White Topping and RMD Technology” organised by Ultra Tech Cement Ltd. on 1<sup>st</sup> July, 2023.
15. Participated in one week Short -Term Course (Online) on Sustainable Solutions to Solid Waste Management organised by NIT, PATNA during 4<sup>th</sup> to 8<sup>th</sup> September, 2023
16. Participated in two days workshop on “Intellectual Property Rights” organised under National IP Yatra during 5& 6 December,2023

17. Participated in One -week online FDP on “Challenges & Recent Trends in Mathematical Modelling and Scientific Computing” organised by Department of Mathematics, HBTU during 18<sup>th</sup> to 22<sup>nd</sup> December, 2023.
18. Participated in International Training Program/FDP on “First Hand Experience on SPSS- Introductory Module” organised by World Innovators University (WIU), School of Business Administration, Bhagwan Parshuram Institute of Technology- New Delhi, Research Foundation of India & RFI-CARE during 15<sup>th</sup> to 22<sup>nd</sup> January,2024
19. Participated in International FDP/ Training Program on “Statistical Analysis with Excel” organised by World Innovators University (WIU), Research Foundation of India & RFI-CARE during 23<sup>rd</sup> to 29 January,2024
20. Participated in One day workshop on Intellectual Property Rights organised by HBTU, Kanpur and sponsored by Council of Science and Technology during 29<sup>th</sup> January,2024.
21. Participated in International FDP/ Training Program on “A Step- by- Step Guide to write a Good Research Paper” jointly organised by MKES Khandwala College- Mumbai, World Innovators University (WIU), Research Foundation of India & RFI-CARE during 30<sup>th</sup> January to 08 February 2024.
22. Participated in seminar on “Art of Leadership” organised by by DELNET-Developing Library Network on 17<sup>th</sup> February,2024.
23. Participated in Microsoft, SAP & AICTE led FDP on “Applied Cloud Computing for Full Stack Web Development” organised Tech-Saksham during 5<sup>th</sup> to 9<sup>th</sup> February 2024.
24. Participated in 6-days FDP on “Internet of Things (IoT) with Artificial Intelligence (AI) and Machine Learning (ML)” organised by Department of Computer Science and Engineering Academy of Technology in association with IEEE ComSoc, Kolkata Chapter during 26<sup>th</sup> February to 02 March,2024.
25. Participated in International FDP/ Training Program on “Advance Tools and Techniques for Research Methodology” jointly organised by Research Foundation of India & RFI-CARE during 26<sup>th</sup> February to 07<sup>th</sup> March, 2024.
26. Participated in one week FDP on “Recent trends in scientific Programming using MATLAB” organised by Department of Electronics and Communication Engineering in association with IEEE Rajasthan Sub-Section during 26<sup>th</sup> February to 01<sup>st</sup> March, 2024.

### **CONFERENCE/TRAINING/WORKSHOP CO-ORDINATED**

- Coordinated an International Conference CHEMCON 2022 on “Sustainability in Chemical Process through Digitalization, Artificial Intelligence and Green Chemistry” held during 27<sup>th</sup> to 30<sup>th</sup> December, 2022 organised by Department of Chemical Technology, School of Technology, HBTU Kanpur.
- Coordinated an International Conference CHEM-TECHNOVA 2023 held during 26<sup>th</sup> to 27<sup>th</sup> May,2023 organised by Department of Chemical Technology, School of Technology, HBTU Kanpur.
- Coordinated training on “Youth Action for Climate Correction” initiative launched by AICTE.
- Coordinator in two-day workshop on “Recent Advances in Water Purification and Waste Water Treatment” organized by Department of Chemical Engineering ,HBTU Kanpur.

## **ACADEMIC & ADMINISTRATIVE RESPONSIBILITIES**

- Co-coordinator of NAAC (National Assessment and Accreditation Council) Criterion-5.
- Warden of Mandakini Girls Hostel (GH-2).
- Member of Manav Sampada Committee.
- Member of Induction Programme (Improving Student Learning)
- Member of Mahila Adhyayan Kendra.
- Convener of Literary Sub-Council, USAC HBTU Kanpur.
- Member of B. Tech & MCA online/offline Document Verification Committee.
- Member of STA Team, HBTU (National Rural Infrastructure Development Agency).
- Member of “Jatigat Bhedbhav Sikayat Nivaran Committee”.
- Member of 3-D printing club.
- Departmental Time Table In-charge & M.Tech Deputy Coordinator.

## **DECLARATION**

I hereby declare that the above written particulars are true and correct to the best of my knowledge and belief.

(SHIVANI KOSHTHA)  
Assistant Professor  
Department of Civil Engineering