

Dr. Vijoyeta Chakraborty

2/103 Bijoygarh,

P.O. - Jadavpur University Kolkata (West

Bengal) Pin : 700032.

Email :

vijoyeta.chakraborty1@adamasuniversity.ac.in

Contact no: +91-7685987949



OBJECTIVE: Dedicated and passionate environmental scientist, committed to contributing academic excellence through research, teaching, and mentoring while promoting environmental sustainability.

FIELD OF RESEARCH INTEREST:

- Air Quality Monitoring;
- Environmental Pollution Control;
- Water treatment technology;
- Application of nano-materials and nano-composite in water treatment technology;
- Adsorption;
- Environmental impact of pollutants;
- Waste reutilization for building circular economy;

WORK EXPERIENCE:

- Currently serving as an Assistant Professor in the Department of Chemistry (Environmental Science) at Adamas University.

Tenure: 12th August 2024 – Till Date.

- Work as Contractual Faculty in Department of Environmental Science at Rani Rashmoni Green University.

Tenure: 2nd January 2024 – 9th August 2024.

- Over two year work experience as Senior Project Associate in West Bengal Pollution Control Board under National Clean Air Programme (NCAP).

Tenure: 13th September 2021 – 31st December 2023.

- Over two year work experience as Senior Research Fellow in DST-SERB sponsored project entitled “Synthesis of Graphene oxide coated natural waste materials and its application for simultaneous treatment of wastewater containing fluoride and chromium: Reactor performance in batch, fluidized bed and packed bed reactor.” in Jadavpur University, Department of Chemical Engineering.

Tenure: 22 May 2019 - 10 September 2021.

EDUCATIONAL QUALIFICATION:

- Ph.D awarded on 18th February (2022), Jadavpur University.
- Qualified in UGC – NET (LS), 2017 in Environmental Science.
- M.Sc. in Environmental Science (2014-2016) from University of Calcutta, with 76.4% aggregate. (CGPA 4.821 out of 6.000).
- B.Sc. in Environmental Science (2010-2013) from University of Calcutta with 82.375% aggregate.
- 10+2 (2009) from Kalyani Central Model High School (affiliated to C.B.S.E.) with 63% aggregate.

TECHNICAL QUALIFICATION:

- Certificate course in Environmental Analyst from Directorate of Industrial Training, Department of Technical Education, Government of West Bengal.
- Diploma in Information Technology application from Directorate of Youth Services, Department of Youth Services, Government of West Bengal.

DISSERTATION WORK:

Removal of hexavalent chromium from aqueous solution by using *Aspergillus* sp. and green synthesis of the chromium nanoparticle, from Department of Chemical Engineering (Jadavpur University).

LIST OF JOURNAL PAPERS:

1. Papita Das, **Vijoyeta Chakraborty** (2024) Experimental study on removal of chromium using nano-silica coated pyrolysed biochar in batch, fixed bed and fluidized bed reactor: Synthesis, characterization, experimentation and mechanism, Waste Management Bulletin, Volume 1, Issue 4, Pages 60-66, <https://doi.org/10.1016/j.wmb.2023.09.001>.
2. **Chakraborty, Vijoyeta & Das, Papita.** (2022). Investigation on efficiency of synthesized lanthanum oxide-coated biochar and graphene oxide-coated biochar on removal of fluoride: batch and fixed bed continuous reactor performance modelling. Biomass Conversion and Biorefinery. 1-14. 10.1007/s13399-022-02661-4.
3. **Chakraborty, V., Das, P., Roy, P.K.,** 2021a. Synthesis and application of various metal oxide-/biomaterial-coated carbonaceous nanomaterials derived from waste biomass for removal of Cr⁺⁶ present in solution. Biomass Convers. Biorefinery. <https://doi.org/10.1007/s13399-020-01224-9>
4. **Chakraborty, V., Das, P., Roy, P.K.,** 2021b. Graphene oxide-coated pyrolysed biochar from waste sawdust and its application for treatment of cadmium-containing solution: batch, fixed-bed column, regeneration, and mathematical modelling. Biomass Convers. Biorefinery. <https://doi.org/10.1007/s13399-020-01153-7>
5. **Chakraborty, V., Das, P., Roy, P.K.,** 2021c. Lanthanum oxide-graphene oxide coated functionalized pyrolyzed biomass from sawdust and its application for dye removal

- present in solution. *Biomass Convers. Biorefinery*. <https://doi.org/10.1007/s13399-021-01507-9>
6. **Chakraborty, V.,** Das, P., 2020a. Synthesis of nano-silica-coated biochar from thermal conversion of sawdust and its application for Cr removal: kinetic modeling using linear and nonlinear method and modelling using artificial neural network analysis. *Biomass Convers. Biorefinery*. <https://doi.org/10.1007/s13399-020-01024-1>
 7. **Chakraborty, V.,** Das, P., Roy, P.K., 2020b. Synthesis and application of graphene oxide-coated biochar composite for treatment of strontium-containing solution. *Int. J. Environ. Sci. Technol.* <https://doi.org/10.1007/s13762-020-02930-7>
 8. **Chakraborty, V.,** Das, P., Roy, P.K., 2019. Carbonaceous materials synthesized from thermally treated waste materials and its application for the treatment of Strontium metal solution: Batch and optimization using Response Surface Methodology. *Environ. Technol. Innov.* 15. <https://doi.org/10.1016/j.eti.2019.100394>
 9. **Chakraborty, V.,** Sengupta, S., Chaudhuri, P., Das, P., 2018. Assessment on removal efficiency of chromium by the isolated manglicolous fungi from Indian Sundarban mangrove forest: Removal and optimization using response surface methodology. *Environ. Technol. Innov.* 10, 335–344. <https://doi.org/10.1016/j.eti.2018.04.007>
 10. Bhowmik, S., **Chakraborty, V.,** Das, P., 2021. Batch adsorption of indigo carmine on activated carbon prepared from sawdust: A comparative study and optimization of operating conditions using Response Surface Methodology. *Results in Surfaces and Interfaces* 3, 100011. <https://doi.org/10.1016/j.rsurfi.2021.100011>
 11. **Chakraborty V.,** Das P., Roy P.K. 2021. Removal of Hexavalent Chromium by Carbonaceous Material Derived from Sawdust. In: Roy P.K., Roy M.B., Pal S. (eds) *Advances in Water Resources Management for Sustainable Use. Lecture Notes in Civil Engineering*, vol 131. Springer, Singapore. https://doi.org/10.1007/978-981-33-6412-7_22.

LIST OF CONFERENCE PAPERS:

- **Vijoyeta Chakraborty,** Papita Das, Pankaj Kumar Roy. Removal of Cadmium by thermally modified sawdust. 12th All India Peoples' Technology Congress, organised by Forum of Scientists, Engineers and Technologists (FOSET) (2019).
- **Vijoyeta Chakraborty,** Papita Das, Pankaj Kumar Roy. Removal of strontium (II) ion from aqueous solution using Graphene Oxide. International Conference on Emerging Technologies for Sustainable Development (2019).
- **Vijoyeta Chakraborty,** Papita Das, Pankaj Kumar Roy. "Removal of Hexavalent Chromium using Agricultural waste based nanocomposite". 9th International conference on sustainable waste management towards circular economy (2019).
- **Vijoyeta Chakraborty,** Papita Das, Pankaj Kumar Roy. "Removal of Hexavalent Chromium by Carbonaceous material derived from sawdust". International Conference on Sustainable Water Resources Management under Changed Climate (2020).

PROJECT GUIDED:

B.Tech: 3

M.Tech: 1

M.Sc: 1

AWARDS RECEIVED:

- Stood 1st in B. Sc.(Environmental Science Hons.) from University of Calcutta.
- Stood 1st in poster presentation on U.G.C sponsored state level seminar on “Environmental Crisis: Challenges in 21st century”.
 - Poster entitled: Over Exploitation with special reference to loss in biodiversity. Held on: 31/01/2012.
- Stood 1st in M. Sc. (Environmental Science) from University of Calcutta.

SEMINARS PARTICIPATED:

- U.G.C sponsored state level seminar on “Groundwater Pollution and it's Management: Perspective and Future Approaches”.
- U.G.C sponsored state level seminar on “Environmental crisis : challenges in the 21st century”.
- Workshop on SODIS (Solar Water Disinfecton) through water fair organized by Women's Studies Research Centre.
- National Seminar on “Perspective in Environmental and Marine Research : Retrospect and Prospect”.
- U.G.C- Special Assistance Programme (DRS III) sponsored seminar on “Industrial Pollution Control Using Emerging Technologies”.
- UGC-SAP sponsored National Seminar on “Advances in Nanoscience and Nanotechnology Application”. Chemical Engineering Department, Jadavpur University.
- 12th All India Peoples’ Technology Congress, organised by Forum of Scientists, Engineers and Technologists (FOSET) (2019).
- International Conference on Emerging Technologies for Sustainable Development (2019).
- 9th International conference on sustainable waste management towards circular economy (2019).
- International Conference on Sustainable Water Resources Management under Changed Climate (2020).
- Discussion Forum on Ecological Sustainability in the Industrial Region - Haldia 13th February 2021 (Saturday); Virtual Platform
- One day Online National Workshop on “Recent trends of pollution control strategies for wastewater treatment (RTPCSWT – 2020)”

PERSONAL SKILLS:

- Innovative in performing any responsibility.
- Ability to learn new things in short period of time.
- Hard Working, Honest, Confident, Enthusiastic, Creative and Determined.

EXTRA CURRICULAR ACTIVITIES:

- Two year certificate course in fine arts from Prachin Kala Kendra, Allahabad.
- Four year certificate course in classical music from Prachin Kala Kendra, Allahabad.

VOLUNTEER EXPERIENCE:

- National Service Scheme
- State Blood Transfusion Council, West Bengal.

PERSONAL PROFILE:

Name : Dr. Vijoyeta Chakraborty
Father's Name : Hiranmay Chakraborty
Nationality : Indian
Gender : Female
Marital Status : Married.
Date of Birth : 18 July 1991
Languages Known : Bengali, English and Hindi.



Place: Jadavpur, Kolkata

(Vijoyeta Chakraborty)