



Department of Leather Engineering
Khulna University of Engineering & Technology
Khulna - 9203, Tel:041-769471 (191); Fax :041-774403



Biography

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Thuhin Kumar Dey

Assistant Professor

Research Area Research Project (Granted by Ministry of Science and Technology, Bangladesh) Water and industrial wastewater treatment with membrane filtration, Microplastics pollution, Electro-oxidation, Graphene oxide based nanocomposite, Nanostructured-sensing materials, Phytoremediation, Desalination.

Education

Master of Science in Leather Engineering

Khulna University of Engineering & Technology, Bangladesh (July 2020 - June 2022)-)

Thesis Title: [Fabrication and Performance Analysis of Graphene-based Membrane to Assist Microplastics Separation from Leather Industry Wastewater](#)

Bachelor of Science in Leather Engineering

Khulna University of Engineering & Technology (KUET), Bangladesh (10 Feb 2011- 25 June 2015)-) Achievement: Three Times Deans Award

Higher Secondary School Certificate (HSC)

Chittagong University School & College, Bangladesh (2009-2010)-)

Secondary School Certificate (SSC)

Chittagong University School & College, Bangladesh (2007-2008)-)

Service Records

- **Assistant Professor**

Department/Section: Leather Engineering

Khulna University of Engineering & Technology (KUET) From 01-01-1970 to 01-01-1970

Working Area: Teaching

Responsibility: Conducting assigned undergraduate courses, academic adviser to students, served dept. committees, supervised undergraduate thesis, supervised laboratories etc.

- **Executive Engineer**

Department/Section: Production Planning

Apex Footwear Limited From 01-01-1970 to 01-01-1970

Responsibility: To ensure the updated production and material planning for smooth shipment of the products

- **Lecturer**

Department/Section: Leather Engineering

Khulna University of Engineering & Technology (KUET) From 01-01-1970 to 01-01-1970

Responsibility: Conducted assigned undergraduate courses, academic advisor to students, served dept. committees, supervised undergraduate thesis, supervised laboratories etc.

Research Interest

Research Project (Granted by Ministry of Science and Technology, Bangladesh)

Associated Investigator, Project Title: Microplastics separation by electrosorption coupled with active electrode oxidation from surface water

Water and industrial wastewater treatment with membrane filtration, Microplastics pollution, Electro-oxidation, Graphene oxide based nanocomposite, Nanostructured-sensing materials, Phytoremediation, Desalination.

Publication

Books

1. Farsi, S. , Dey, <. K. D. , Rahman, M. and Jamal, a. M. (2022) , **Biomass-Based Supercapacitors: Design, Fabrication and Sustainability: CO₂-Activated Carbon** , Wiley Online Library

Journals

13. Dey, <. K. D. , Fan, L. , Bhuiyan, M. and Pramanik, B. K. (2024) , " Evaluating the performance of the metal organic framework-based ultrafiltration membrane for nanoplastics removal," **Separation and Purification Technology**, Elsevier

12. Roy, K. , Dey, <. K. D. , Jamal, M. , Rathanasamy, R. , Chinnasamy, M. and Uddin, M. E. (2022) , " Fabrication of graphene oxide-keratin-chitosan

- nanocomposite as an adsorbent to remove the turbidity from tannery wastewater," **Water Science and Engineering**, Elsevier
11. Noyon, M. A. R. , Dey, <. K. D. , Jamal, M. , Rathanasamy, R. , Chinnasamy, M. and Uddin, M. E. (2022) , " Fabrication of LLDPE based biodegradable composite incorporated with leather shavings and buffing dust: An approach for waste management," **Journal of Applied Polymer Science**, Wiley Online Library
 10. Dey, <. K. D. , Jamal, M. and Uddin, M. E. (2023) , " Fabrication and performance analysis of graphene oxide-based composite membrane to separate microplastics from synthetic wastewater," **Journal of Water Process Engineering**, Elsevier
 9. Dey, <. K. D. , Rasel, M. , Roy, T. , Uddin, M. E. , Pramanik, B. K. and Jamal, a. M. (2023) , " Post-pandemic micro/nanoplastic pollution: towards a sustainable management," **Science of the Total Environment**, Elsevier
 8. Roy, T. , Dey, <. K. D. and Jamal, M. (2022) , " Microplastics/Nanoplastics toxicity on plants: an imminent concern," **Environmental Monitoring and Assessment** , Springer Nature
 7. Dey, <. K. D. , Hossain, A. , Jamal, M. , Layek, R. K. and Uddin, a. M. E. (2022) , " Zinc oxide nanoparticle reinforced waste buffing dust based composite insole and its antimicrobial activity," **Advances in Polymer Technology** , John Wiley & Sons, Inc.
 6. Roy, K. , Dey, <. K. D. , Zuha, S. T. , Jamal, M. , Srivastava, M. and Uddin, a. M. E. (2021) , " Removal of turbidity from tannery wastewater using graphene oxide-ferric oxide nanocomposites as an adsorbent," **International Journal of Environmental Science and Technology**, Springer Nature
 5. (2021) , " Separation of microplastics from water- what next?," **Journal of Water Process Engineering**, Elsevier
 4. Islam, M. A. , Molla, M. Y. , Dey, <. K. D. , Jamal, M. , Rathanasamy, R. and Uddin, a. M. E. (2021) , " Latex reinforced waste buffing dust-jeans cotton composites and its characterization," **Journal of Polymer Research**, Springer Nature
 3. Jamal, M. , Dey, <. K. D. , Nasrin, T. and Razeeb, A. K. a. K. M. (2021) , " Nanostructured materials for sensing pH: Evolution, Fabrication and challenges," **Journal of the Electrochemical Society**, The Electrochemical Society
 2. Dey, <. K. D. and Jamal, M. E. U. a. M. (2021) , " Detection and removal of microplastics in wastewater: evolution and impact," **Environmental Science and Pollution Research**, Springer Nature
 1. Juel, M. A. I. , Syed, S. A. and Dey, <. K. D. (2016) , " Assessment of Kinetic Coefficients for Chrome Tannery Wastewater Treatment by Activated Sludge System," **Iranica Journal of Energy & Environment**, vol08, no.01, pp.56-60

Conference

5. Chakrabarty, S. , Dey, <. K. D. , Badal, M. R. , Razeeb, K. M. and Jamal, M. (29-30 November, 2021) , "Non-enzymatic glutamate sensor based on nickel oxide nanoparticle: experimental and theoretical study," **First International Conference on Technologies for Smart Green Connected Society 2021** , Yamagata University, Japan
4. Dey, <. K. D. and Jamal, a. M. (29-30 November, 2021) , "The electrochemical reactor: a sustainable approach of microplastics separation," **First International Conference on Technologies for Smart Green Connected Society 2021** , Yamagata University, Japan
3. Juel, M. A. I. , Dey, <. K. D. , Akash, M. I. S. and Das, a. K. K. (9~11 February 2018) , "HEAVY METALS PHYTOREMEDIATION POTENTIAL OF NAPIER GRASS (Pennisetum purpureum) CULTIVATED ON TANNERY SLUDGE," **Proceedings of the 4 th International Conference on Civil Engineering for Sustainable Development (ICCESD 2018)**