

## Journals (International):

- D Basu, R K Srivastava, R C Vaishya. (2008). An assessment of air pollution impact for an Indian highway project: A GIS based approach. *Management of Environmental Quality*, 19 (5), 510-519 [Scopus Indexed].
- D Basu, S K Gupta. (2010). Biodegradation of 1, 1, 2, 2-tetrachloroethane in upflow anaerobic sludge blanket (UASB) reactor. *Bioresource Technology*, 101 (1), 21-25 [SCIE].
- D Basu, S R Asolekar. (2012). Evaluation of substrate removal kinetics for UASB reactors treating chlorinated ethanes. *Environmental Science and Pollution Research* 19 (6), 2419-2427 [SCI].
- D Basu, S R Asolekar. (2012). Performance of UASB reactor in the biotreatment of 1, 1, 2-Trichloroethane. *Journal of Environmental Science and Health, Part A* 47 (2), 267-273 [SCIE].
- D Basu, S R Asolekar. (2012). Effect of carbon sources on the removal of 1, 1, 2-Trichloroethane and 1, 1, 2, 2-Tetrachloroethane in UASB reactor. *Journal of Environmental Science and Health, Part A* 47 (4), 638-644 [SCIE].
- D Basu, S K Gupta. (2012). Performance of Upflow Anaerobic Sludge Blanket (UASB) reactor treating simulated wastewaters containing 1, 1, 2-Trichloroethane and 1, 1, 2, 2-Tetrachloroethane. *International Journal of Environment and Waste Management*, 9 (1-2), 181-190 [Scopus Indexed].
- S Yadav, A K Sachan, D Basu. (2019). Decadal trend analysis of rainfall over Uttar Pradesh (India). *Disaster Advances*, 12 (2), 6-10 [Scopus Indexed].
- S Yadav, A K Sachan, D Basu. (2019). Trend Analysis of Rainfall over Bihar Region of India. *Indian Journal of Environmental Protection*, 39 (5), 453-465 [Scopus Indexed].
- S Yadav, D Basu, A K Sachan. (2020). Study on Temporal Variation of Rainfall over Uttar Pradesh Region India. *International Journal on Emerging Technologies*, 11 (3), 96-106.
- K Dutta, D Basu, S Agrawal. (2021). Synergetic interaction between spatial land cover dynamics and expanding urban heat islands. *Environmental Monitoring and Assessment*, 193, 184, <https://doi.org/10.1007/s10661-021-08969-4> [SCIE].
- K Dutta, D Basu, S Agrawal. (2021). Evaluation of seasonal variability in magnitude of urban heat islands using local climate zone classification and surface albedo. *International Journal of Environmental Science and Technology*, <https://doi.org/10.1007/s13762-021-03602-w> [SCIE].
- Imran Ahmad, D Basu. (2022). Effect of mass transport limitation and pyrite particulate on the continuous electro-Fenton process treatment of textile industrial dyes. *Advances in Environmental Technology, Iranian Research Organization for Science and Technology*, 8 (4), 279-292. [Scopus Indexed]
- D Basu, Priyaranjan Pal, Ankit Prakash. (2022). Utilization of waste sludge in cementitious matrix: A feasibility study. *Materials Today: Proceedings*, 65, 1375-1381. [Scopus Indexed]
- Imran Ahmad and D Basu. (2022). Taguchi L16 (44) orthogonal array-based study and Thermodynamics analysis for electro-Fenton process treatment of textile industrial dye. *Chemical Product and Process Modeling, De Gruyter*, <https://doi.org/10.1515/cppm-2022-0045> [Scopus Indexed]
- Amit Kumar, D Basu. (2023). Optimization of Removal of Cr (VI) from Wastewater by Electrocoagulation Process using Response Surface Methodology. *Journal of Hazardous, Toxic, and Radioactive Waste*, 27, 04022038. [Scopus Indexed]
- Amit Kumar, D Basu. (2023). Economic and performance evaluation of electrocoagulation unit for the treatment of hexavalent chromium using Taguchi method. *International Journal of Environmental Science and Technology*. 20, 8753-8762. [SCIE]
- Piyush Tripathi, D Basu, Priyaranjan Pal. (2023). Environmental impact of recycling sewage sludge into cementitious matrix: A review. *Materials Today: Proceedings*. 78, 179-188. [Scopus Indexed].
- K Dutta, D Basu, S Agrawal. (2023). Identification of Critical Urban Clusters for Placating Urban Heat Island Effects over Fast-Growing Tropical City Regions: Estimating the Contribution of Different City

Sizes in Escalating UHI Intensity. *Photogrammetric Engineering & Remote Sensing*. 89, 667-677. [SCIE]

- Amit Kumar, D Basu. (2023). Parametric optimization of hexavalent chromium removal by electrocoagulation technology with vertical rotating cylindrical aluminium electrodes using Taguchi and ANN model. *Journal of Environmental Health Science and Engineering*, 21 (1), 255-275. [SCIE]
- Piyush Tripathi, D Basu, Priyaranjan Pal. (2023). Utilization of water treatment plant waste sludge in a cementitious matrix. *Indian Journal of Environmental Protection*, 42 (13), 1624-1633. [Scopus Indexed]
- Amit Kumar and D Basu. (2023). Performance evaluation of electrochemical process for removal of syntan by using vertical rotating aluminium electrodes. *Indian Journal of Environmental Protection*, 42(13), 1572-1577. [Scopus Indexed]
- Imran Ahmad and D Basu. (2023). Application of the central composite design and Taguchi method for the optimization of the electro-Fenton process treatment of Textile industrial dye. *Indian Journal of Environmental Protection*, 42(13), 1548-1554. [Scopus Indexed]
- Piyush Tripathi, D Basu, Priyaranjan Pal. (2024). "Effect of combustion temperature on the performance of sewage sludge ash based cement mortar", *International Journal of Environment and Waste Management*, DOI: 10.1504/IJEW.2024.10063479. [Scopus Indexed].
- Imran Ahmad and D Basu. (2024) "Experimental study and response surface methodology optimization of electro-fenton process reactive orange 16 dye treatment." *Iranian Journal of Science and Technology, Transactions of Civil Engineering* 48.3: 1715-1729. [Scopus Indexed]
- K Dutta, D Basu, S Agrawal. (2024). Ambient temperature modelling from surface characteristics and associating urban morphology with thermal discomfort. *Singapore Journal of Tropical Geography*, 45(2), 290-310. [Scopus Indexed]
- Amit Kumar and D Basu (2024). Comparison of electrocoagulation and combined electrocoagulation-electrooxidation treatment for synthetic tannery wastewaters bearing phenolic syntan. *Water, Air, & Soil Pollution*, 235(4), 259. [SCIE]
- Mohd Zaid, D. Basu (2024). Understanding the relationship between land use/land cover changes and air quality: A GIS-based fuzzy inference system approach. *Environmental Monitoring and Assessment*, doi.org/10.1007/s10661-024-13267-w. [SCIE]
- Imran Ahmad, D Basu. (2024). Treatment of Reactive Orange 16 Dye-Bearing Wastewater by Electro-Fenton Process with Stainless-Steel Electrodes: Statistical Optimization and Operational Analysis. *Letters in Organic Chemistry*, 21(7), 630-644. [SCIE]
- Imran Ahmad, D Basu. (2024). Electrochemical Treatment of Reactive Orange 16 Dye Pollutant Using Microbial Fuel Cell as Renewable Power Source. *Environmental Engineering Science*. <http://doi.org/10.1089/ees.2023.0136>. [SCIE]
- Imran Ahmad, D Basu. (2025). Comparative study on the role of single-and double-cathode in electro-Fenton process for treatment of Reactive Orange 16 dye bearing wastewaters. *International Journal of Environmental Analytical Chemistry*. 1-21. [SCIE]

#### **Conference (International) Proceedings:**

- K Dutta, D Basu, S Agrawal. (2018). Temporal and Spatial Analysis of Urban Heat Island Using Landsat Satellite Data: Two Indian Case Studies. *ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences*, Vol. 4, Issue 5, pp. 71-78 [Scopus Indexed].
- S Mahmoodi, K Dutta, D Basu, S Agrawal. (2019). Understanding Link between Land Surface Temperature and Landscape Heterogeneity: A Spatio-temporal and Inter-Seasonal Variability Study on Kabul city, Afghanistan. *ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences*, Vol. 4 Issue 5/W3, pp. 57-65 [Scopus Indexed].

- K Dutta, D Basu, S Agrawal. (2019). Nocturnal and Diurnal Trends of Surface Urban Heat Island Intensity: A Seasonal Variability Analysis for Smart Urban Planning. *ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences*, Vol. 4 Issue 5/W3, pp. 25 – 33 [Scopus Indexed].
- A Kumar, D Basu. (2018). Treatment of Dairy Wastewater by Electrocoagulation using vertically held Rotating Cylindrical Aluminium Electrodes, pp. 33-35, *Proceedings of International Conference on Sustainable Solutions in Industrial Pollution Water and Wastewater Treatment*, ISBN: 978-93-88237-19-2, Nov 10-11, 2018, Aligarh Muslim University, UP, India.
- D Nayyar, D Basu, R M Singh. (2018). Fuzzy-Logic-Based Models to predict Biogas and Volatile Fatty Acid (VFA) Production in a UASB Reactor treating Sulphate rich Wastewater, pp. 408-410, *Proceedings of International Conference on Sustainable Solutions in Industrial Pollution Water and Wastewater Treatment*, ISBN: 978-93-88237-19-2, Nov 10-11, 2018, Aligarh Muslim University, UP, India.
- Kanaya Dutta, Debolina Basu and Sonam Agarwal. (2019). Assessing Degradation in Local Environment due to Recent Urban Sprawl: Case Study of an Indian Satellite Town, *International Conference on Intelligent Computing and Remote Sensing (ICICRS 2019)*, July 19-20, 2019, IEEE and C. V. Raman College of Engineering, Bhubaneswar, India. DOI: 10.1109/ICICRS46726.2019.9555874
- Tanya, Amit Kumar, D Basu. (2020). Taguchi Based Design of Experiment for Optimizing the Performance of Electrocoagulation Unit, *International Conference on Water Energy and Environmental Sustainability*, Jan 13-15, 2020, National Institute of Technology Durgapur, India.
- Amit Kumar, D Basu. (2020). Removal of Synthetic Tanning Agent Syntan by Electrocoagulation Process using Vertical Rotating Electrodes, pp. 144, *Proceedings of Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020)*, ISBN: 978-93-5396-500-6, ASCE India section, March 02-04, 2020, Kolkata, India.
- Darakhshan Nayyar, Amit Kumar, D Basu, R. M. Singh. (2020). Modeling and Performance Evaluation of Electrocoagulation Unit for the Removal of Hexavalent Chromium, pp. 131-32, *Proceedings of Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020)*, ISBN: 978-93-5396-500-6, ASCE India section, March 02-04, 2020, Kolkata, India.
- Imran Ahmad, D Basu. (2021). Using Central Composite Experimental Design to Optimize the Degradation of Reactive Orange 16 Dye from Aqueous Solution by Electro-Fenton Reaction. *International Conference on Advances in Chemical, Biological and Environmental Engineering (ICACBEE-2021)*, April 23-24, 2021, MNIT Jaipur, India, pp. 89, ISBN: 978-93-81891-68-1
- Mohd. Zaid, D Basu. (2021). Understanding the Linkage between Ambient Air Quality and Land-Use/Land-Cover Changes: A GIS Based Integrated Approach. *International Conference on Advances in Chemical, Biological and Environmental Engineering (ICACBEE-2021)*, April 23-24, 2021, MNIT Jaipur, India, pp. 57, ISBN: 978-93-81891-68-1
- Ankit Kumar, D Basu. (2021). Trend and Variability of Meteorological Drought Over Districts of Uttar Pradesh. *International Conference on Advances in Chemical, Biological and Environmental Engineering (ICACBEE-2021)*, April 23-24, 2021, MNIT Jaipur, India, pp. 58, ISBN: 978-93-81891-68-1
- Riya Verma, D Basu, R M Singh. (2021). Water Quality Time Series Modeling using Statistical and Ensemble Models. *International Conference on Advances in Chemical, Biological and Environmental Engineering (ICACBEE-2021)*, April 23-24, 2021, MNIT Jaipur, India, pp. 75, ISBN: 978-93-81891-68-1
- S Yadav, D Basu, A K Sachan. (2021). Trend Analysis of Temperature Over Orissa Region (India). *International Conference on Advances in Chemical, Biological and Environmental Engineering (ICACBEE-2021)*, April 23-24, 2021, MNIT Jaipur, India, pp. 90, ISBN: 978-93-81891-68-1
- Amit Kumar, D Basu. (2021). Optimization of Removal of Cr (VI) from Wastewater by Electrocoagulation Process using Response Surface Methodology, *International Conference on Recent*

Innovations in Cleaner Technologies (RICT-2021), March 8-9, 2021, Department of Chemical Engineering, MNIT Jaipur, India.

- Mohd Zaid, Amit Kumar, D Basu. (2021). Selection of Municipal Wastewater Treatment Unit using MCDM Approach: A Case Study of Prayagraj City, Uttar Pradesh, International Conference on Recent Innovations in Cleaner Technologies (RICT-2021), March 8-9, 2021, Department of Chemical Engineering, MNIT Jaipur, India.
- Aniket Maurya, D Basu. (2021). Reliability Analysis of Conventional Drinking Water Treatment Plant: A Case Study of Prayagraj, India, International conference on Water Desalination, Treatment & Management (InDACON 2021), March 19 – 20, 2021, Indian Desalination Association and Department of Chemical Engineering, MNIT Jaipur, India.
- Riya Verma, D Basu, R. M. Singh. (2021). Assessment of water quality variation in upper ganga canal after extreme flood events using interrupted time series modelling, International Conference on Water and Environment (ICWE – 2021), March 22-23, 2021, Department of Civil Engineering, Maulana Azad National Institute of Technology, Bhopal, India.
- Piyush Tripathi, D Basu, Priyaranjan Pal. (2022). Environmental Impact of Recycling Sewage Sludge into Cementitious Matrix: A Review. Sustainable and Green Technologies, Technological Interventions for Sustainability (CHEM-CONFLUX 22), April 14-16, 2022, Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, India, 416, ISBN: 978-93-94086-16-6.
- Piyush Tripathi, D Basu, Priyaranjan Pal. (2022). Utilization of water treatment plant waste sludge in a cementitious matrix. International conference on ‘Recent Developments in Civil Engineering (RDC-2022),’ October 20-21, 2022, Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, India.
- Amit Kumar and D Basu. (2022). Performance evaluation of electrochemical process for the removal of sytan by using vertical rotating aluminum electrodes. International conference on ‘Recent Developments in Civil Engineering (RDC-2022),’ October 20-21, 2022, Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, India.
- Imran Ahmad and D Basu. (2022). Application of the central composite design and Taguchi method for the optimization of the electro-fenton process treatment of textile industrial dye. International conference on ‘Recent Developments in Civil Engineering (RDC-2022),’ October 20-21, 2022, Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, India.
- Imran Ahmad and D Basu. (2022). Thermodynamics Analysis for Electro-Fenton Process Treatment of Textile Industrial Dye, Sustainable and Green Technologies, Technological Interventions for Sustainability (CHEM-CONFLUX 22), April 14-16, 2022, Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, India, 269, ISBN: 978-93-94086-16-6.
- Yashpal Mahor, Piyush Tripathi, D Basu, (2024). Exploring the Potential: Utilizing Tannery Sludge for Solidification with Binders. National Conference on ‘Green Technology and Sustainable Development (GTSD24),80.
- Kriti Kumari, Amit Kumar, D Basu, (2024). “Optimizing Electrocoagulation for Phenolic Compound Removal from Synthetic Tannery Wastewater: Cost Analysis. National Conference on ‘Green Technology and Sustainable Development (GTSD24),79.
- S Saxena, S Agrawal, D Basu, (2024). EHF based Heatwave Identification and its Impact on Urban Heat Island Intensity: A Case Study of an Indian City. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, X-3–2024(November), 377–382 [Scopus Indexed]. <https://doi.org/10.5194/isprs-annals-X-3-2024-377-2024>

### Book Chapters:

- S K Gupta, D Basu, Y Hung, L Wang. (2008). Chapter 2: Waste Treatment in the Iron and Steel Manufacturing Industry, Wang, L.K., Shamma, N.K., Hung, Y. (Eds.), In: Waste Treatment in the Metal Manufacturing, Forming, Coating and Finishing Industries, (ISBN: 978-1-4200-7223-5) CRC Press, Boca Raton, FL, pp. 37-70.
- S K Gupta, D Basu, Y Hung, L Wang. (2009); Chapter 2: Waste Treatment in the Iron and Steel Manufacturing Industry, Wang, L.K., Hung, Y-T., Shamma, N. K. (Eds.), In: Handbook of Advanced Industrial and Hazardous Wastes Treatment, (ISBN: 978-1-4200-7219-8) CRC Press, Boca Raton, FL, pp. 37-70.
- D Basu, S K Gupta, Y T Hung. (2017); Chapter 26: Treatment of Wastes from the Organic Chemicals Manufacturing Industry, Wang, L.K., Sung, M-H. S., Hung, Y-T., Shamma, N. K., Chen, J. P. (Eds.), In: Handbook of Advanced Industrial and Hazardous Wastes Management, (ISBN: 978-1-4665-1341-9) CRC Press, Boca Raton, FL, pp. 839-854.
- D Basu, S K Gupta, Y T Hung. (2017); Chapter 12: Treatment of Wastes from the Organic Chemicals Manufacturing Industry, Wang, L.K., Sung, M-H. S., Hung, Y-T., Shamma, N. K., Chen, J. P. (Eds.), In: Waste Treatment in the Service and Utility Industries, (eBook ISBN: 978-1-3151-6419-9) CRC Press, Boca Raton, FL, pp. 373-388.