# CURRICULUM VITAE

## PERSONAL INFORAMTION


**Dr. ALOK SINHA**
**Professor**
11- Dept. of Environmental. Science & Engineering
**Indian Institute of Technology (ISM)**
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**+91-326-2296624 (Fax);**
**+91-9471518560 (Mob)**


## ACADEMIC BACKGROUND

| Degree | Year | Institution/University | Branch | %/CPI |
|---|---|---|---|---|
| B. E. | 1986-1990 | Z.H.C.E.T., A.M.U., Aligarh | Civil Engg. | 77.56% |
| M.E. | 1990-1992 | Z.H.C.E.T., A.M.U., Aligarh | Hydraulic Structures | 82.6% |
| PhD | 2001-2008 | IIT Kanpur | Environmental Engineering | 8.81/10 |

## RESEARCH INTERESTS

1. Water and Wastewater Treatment
2. In-situ Groundwater Remediation
3. Nano-technology for water remediation
4. Advanced Oxidation Processes (AOPs)
5. Treatment of Emerging Contaminants by combined biological and physico-chemical processes

## FELLOWSHIPS/AWARDS/DISTINCTIONS

1. Awarded with MHRD Scholarship for M.E. after qualifying GATE,1990 with an overall percentile of 93.2 (95.87 percentile in Civil Engg. & 80.2 percentile in Basic Sciences and Engineering)
2. Ranked second in M.E. (Hydraulic Structures), 1990 batch with 82.6% marks at Z.H.C.E.T., A.M.U., Aligarh.
3. Best paper award for paper titled "**Predicting Long Term Performance of Cast Iron Permeable Reactive Barrier Treating 2-Chloronaphthalene**" at National Conference on Environmental Conservation (NCEC 2006), Sept 1-3, 2006, BITS Pliani.
4. Accredited by Quality Council of India-National Accreditation Board for Education and Training (QCI-NABET) as Functional Area Expert (FAE) for carrying out EIA for Water Pollution, Hydrogeology and Solid Waste during 2012-13.
5. Received a **Certificate of Excellence** for his innovation "**Utilization of Steel Waste for treating Pesticide Contaminated Groundwater**" for **Knimbus Young Innovator Award** for the year 2013-14.
6. **State Nodal officer** for Jharkhand, National Water Mission (2018-2020).
7. **Guest Editor** for Frontiers in Environmental Science
8. **Fellow** of The Institution of Engineers (India) (F-1273929)

## RESEARCH PUBLICATIONS

1. International Journal (SCI/SCIE/Scopus): **81**
2. Books: **02**

## PATENTS

1. **Title of the invention : NOVEL SYSTEM FOR REGENERATING AND REUSING NZVI/ZVI PARTICLES IN WASTEWATER TREATMENT**
   Inventors: **Amal K Saha & Dr Alok Sinha**
   **Patent No. 360353**

## RESEARCH GUIDANCE

1. **Ph. D Guidance: 16 (Awarded)** + 02 (Submitted) + 05 (Ongoing)
2. **M. Tech Guidance: 37 (Awarded)** + 02 (Ongoing)

## EXTERNALLY FUNDED PROJECTS

1. **R&D Projects**: **08 (Completed)** + 02 (Ongoing)
2. **Industrial Consultancy Projects**: **17 (Completed)** + 05 (ongoing)

## PROFESSIONAL APPOINTMENTS

| Employer | Position held | Date of Joining | Date of Leaving |
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| **INDUSTRIAL EXPERIENCE** | | | |
| JP Enterprises Ltd., JP Cement, Rewa | Senior Field Engineer | 04.01.1993 | 16.12.1993 |
| S.K. Saxena, Er. and Contr., Noida | Partner | 25.12.1993 | 30.04.1995 |
| J.K.Industries Ltd., Banmore | Civil Engineer | 01.05.1995 | 28.02.1998 |
| C.I.E. Ltd, Goa | Civil Engineer | 20.03.1998 | 23.07.1998 |
| **TEACHING EXPERIENCE** | | | |
| SRMSCET, Bareilly | Lecturer | 23.08.1998 | 26.06.2001 |
| Harcourt Butler Technological Institute (HBTI), Kanpur | Assistant Professor | 14.02.2007 | 31.03.2009 |
| Indian School of Mines, Dhanbad | Assistant Professor | 08.04.2009 | 05.09.2013 |
| Indian School of Mines, Dhanbad | Assistant Professor (PB4) | 06.09.2013 | 30.05.2016 |
| Indian Institute of Technology (ISM), Dhanbad | Associate Professor | 31.05.2016 | 11.04.2021 |
| Indian Institute of Technology (ISM), Dhanbad | Professor | 12.04.2021 | Till present |

## RESEARCH & DEVELOPMENT PROJECTS

| S. No | Title of the Project | Funding Agency | Sanction date | Amount (Lakhs) | Role |
|---|---|---|---|---|---|
| **ONGOING** | | | | | |
| 1. | Application of hybrid techniques for generation of Decision Support System for quantifying the population vulnerability due to geogenic contaminants and development of cost-effective remediation methods, in the mining-affected and surface-groundwater interaction zones in the Damodar basin **(SERB(CRG)/2024-25/1109/CE)** | DST-SERB | 08.05.2024 | 36.12 | Co-PI |
| 2. | Potential and Validation of Sustainable Natural & Advance Technologies for Water & Wastewater Treatment, Monitoring and Safe Water Reuse in India **(DST(238)/2019-20/664/ESE)** | DST-European Union | 31.03.2020 | 104.00 | Co-PI |
| **COMPLETED** | | | | | |
| 1. | Study of Dust Suppression Chemical **(Tata Steel/2020-21/738/ESE)** | Tata Steel | 20.10.2020 | 14.75 | PI |
| 2. | Remediation of Ground Water Contaminated with Hexavalent Chromium in Sukhina Valley, Odihsa, using Nano Zero Valent Iron (nZVI) Technology **(MoEF(1)2015-16/443/ESE)** | MoEF&CC | 03.03.2017 | 24.80 | PI |
| 3. | High Ash Coal Gasification and Associated Upstream and Downstream Processes (Coal to Chemicals, CTC) **(CIL (8)/ 2017-2018/ 539/ CHEMICAL ENGG)** | CIL | 17.07.2017 | 1872.007 | Co-PI |
| 4. | Influence of Chlorine Disinfectant and Natural Organic Matter Gradients on Disinfection By-Product Formation in Drinking Water of Some Indian Cities **(DST(95)/2013-2014/ 381/ESE)** | SERB-DST | 14.02.2014 | 23.186 | Co-PI |
| 5. | Control of Disinfection by Products formation in drinking water supplies of India **(MDWS/2015-16/453/ESE)** | MRD, New Delhi | 15.03.2016 | 25.2 | Co-PI |
| 6. | Study to develop and improved | Tata Steel | 03.05.2017 | 11.8 | Co-PI |

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| | nitrification in AIS at BOT Plant **(Tata Steel/2017-18/535/ESE)** | | | | |
| 7. | Cost Effective Treatment of Textile Wastewater Containing Mono Azo Dye by Utilizing Scrap Generated from Cast Iron Workshops | TEQIP II | 22.07.2013 | 1.0 | PI |
| 8. | Reduction of Chlorinated Pesticides by Zero-Valent Iron (ZVI): Kinetics, Pathways and Long Term Performance (**FRS(1)/2009-2010/1/ESE**) | ISM Dhanbad | 31.03.2010 | 4.59 | PI |

## MAJOR INDUSTRIAL CONSULTANCY PROJECTS

| S.No. | Title of the Project | Consultancy Number | Funding Agency | Total Amount (in Lakh Rs) | Role |
|---|---|---|---|---|---|
| **COMPLETED** | | | | | |
| 1. | Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad | CONS/1118/ 10-11 | Six Individual coke Oven Plants, 2010 | 10.5 | C.I. |
| 2. | Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro | CONS/1440/ 2011-12 | BTPS | 5.23 | CI |
| 3. | Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro | CONS/1817/ 2012-13 | BTPS | 5.33 | CI |
| 4. | Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro | CONS/2231/ 13-14 | BTPS, DVC | 5.93 | CI |
| 5. | Environmental Monitoring of Stack, Ambient Air Quality, Water and Effluent samples for NTPC, Unchahar | CONS/2013-14 | NTPC, Unchahar | 7.56 | Co-CI |
| 6. | Design of Settling Pond at Ambuja cement Plant | CONS/2014-15 | Ambuja Cement | 1.80 | Co-CI |
| 7. | Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro | CONS/2705/ 14-15 | BTPS, DVC | 5.56 | CI |
| 8. | Wastewater Management and Control of Water Pollution from Plant and Mines of Kirandul Complex | CONS/3049/ 2015-2016 | NMDC | 15.10 | CI |
| 9. | Geo Enviro study of abandoned mines | CONS/2927/ | MPL Ltd | 22.80 | Co-CI |

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| | for flyash backfilling | 2015-2016 | | | |
| 10. | Validation of Data quantitative for Coal Jal App with respect to ECL. | TEST/4012/2018-2019 | ECL | 21.40 | CI |
| 11. | Validation of Data Quantitative for Coal Jal App with respect to ECL | TEST/4010/2018-2019 | ECL | 17.8 | Co-CI |
| 12. | Validation of Data Quantitative for Coal Jal App with respect to BCCL | TEST/4009/2018-2019 | BCCL | 12.8 | Co-CI |
| 13. | Treatability Study of Sewage/Effluent at different locations of ECL. | CONS/5005/2018-2019 | ECL | 10 | Co-CI |
| 14. | Feasibility Study of STP at West Bokaro Division | CONS/3300/2016-2017 | Tata Steel | 15.16 | Co-CI |
| 15. | 3rd Party Evaluation of DPR/Agency appointed for Water Supply Project under JMADA. | CONS/4099/2018-2019 | JMADA | 19.96 | Co-CI |
| 16. | Validation of Data Quantitative for Coal Jal App with respect to CCL | TEST/4008/2018-2019 | CCL | 12.2 | Co-CI |
| 17. | Assessment of heavy Metal Pollution Index (HPI) in Water Sediments and Aquitic Samples in and Around Manikpur Open cost Mine fly ash fill site | CONS/4096/2018-2019 | NTPC | 24.0 | Member |
| **ONGOING** | | | | | |
| 18. | Performance Evaluation and Wastewater management system at Bhilai Steel Plant | CONS/7029/2022-2023 | SAIL | 34.22 | Co-CI |
| 19. | To conduct an Independent Study on Assessment and Validation of Mine-Wise water to Ensure Optimum and Gainful Utilization of Mine water | CONS/7097/2023-2024 | WCL, Nagpur | 47.77 | Co-CI |
| 20. | Study to verify mine-water availibility and potential of mine water community use in BCCL | CONS/7205/2023-2024 | BCCL | 79.9 | Co-CI |
| 21. | Hydrological Study/Nallah Diversion Study at Gare Palma II Project | CONS/7221/2023-2024 | Mahagenco, Mumbai | 29.5 | Co-CI |
| 22. | Tailing Dam Leakage Study at Khetri Copper Complex | CONS/7242/2024-2025 | HCL, Khetri | 17.6 | Co-CI |

## SEMINAR/ CONFERENCES/SHORT TERM COURSES ORGANIZED:

| Sl. No. | Title | External Funding in ₹ (Lakh) | Funding Agency | Role (CI/ Co-CI) | Duration |
|---|---|---|---|---|---|
| 1. | International Conference on Modeling of Environmental and Water Resources Systems at HBTU, Kanpur (ICMEWRS 2017) | 19.4 | TEQIP-II, World Bank | Core Organizing Committee | March 24–26, 2017 |

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| 2. | 33rd National Convention of Environmental Engineers on "Status of Technological Advancement to Meet the Environmental Norms for Indian Mining and Allied Industries | 16.0 | Institution of Engineers | Co-Convener | 24-25 August 2017 |
| 3 | 3 Days Training Program on Water Quality & Treatment | 2.30 | Various agencies like NMDC, CMPDIL, BCCL etc. | CI | January 28-30, 2016 |
| 4 | Recent Advances in Water Resources and Environmental Engineering Computation | 3.91 | Participants from Educational Institutes and Industry | Co-CI | 22-26 Dec, 2015 |
| 5 | National workshop on "Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015) | 5.0 | MDWS | Organizing Secretary | 23-24 Jan, 2015 |
| 6 | Environmental Impact Assessment of Mining Projects" for Afghanistan Officials sponsored by Ministry of External Affairs organized by ESE Deptt | 19.64 | Ministry of External Affairs | Co-CI | 6-22 Dec 2014 |
| 7 | Assessment of Water Quality and Low Cost Treatment Methods for Rural Water Supply | 3.7 | MDWS | Co-CI | 15-17 Oct, 2014 |
| 8. | Water And Wastewater Treatment And Management | 1.57 | MDWS | Co-CI | 7-9 November, 2012 |

## ADMINISTRATIVE RESPONSIBILITIES HELD:

**DEPARTMENT LEVEL**

- Incharge, Summer Training, for III year B. Tech. Civil Engg. Students at HBTI Kanpur from 2007- Mar 2009
- Faculty Incharge-Industrial Wastewater Treatment Laboratory, ESE Deptt, ISM Dhanbad since 2009.
- Faculty Incharge- Departmental Library, ESE Deptt, ISM Dhanbad since 2011.
- Secretary, Students Society of Environmental Science and Engineering (SESE) since 2012
- Faculty Incharge-Counselling Committee – I Year B Tech students ESE Deptt, ISM Dhanbad
- Faculty Incharge Feedback of I Yr B Tech First Year Students at ESE Deptt, ISM Dhanbad
- Member- Departmental Research Committee, since 2010, at ESE Deptt, ISM Dhanbad

**INSTITUTE LEVEL**

- Examination Controller in S.R.M.S. College of Engineering and Technology, Bareilly from 1999-2001.
- Accounts Secretary for Married Students Welfare Committee (M.S.W.C.) from 2003-2004 at S.B.R.A., IIT Kanpur.

- Member, Moderation Board, Indian School of Mines, Dhanbad from Nov 2009-2011
- Member-Academic Council since 2009 at IIT(ISM), Dhanbad
- Served as Head, Department of Civil Engineering, IIT(ISM) Dhanbad from 22.05.2017 to 05.06.2018
- Served as Associate Dean (Infra-Projects and Planning) from 21.05.2018 to 18.06.2021
- Served as Dean (Infrastructure) since 19.06.2021 to 04.09.2023

## LIST OF PUBLICATIONS (SCI/SCIE):

| S. No | Publication Details |
|---|---|
| **1.** | Ujjwal, R., Abhrajyoti Tarafdar, Kamal, N., Burman, I., & Sinha, A. (2025). Development of Innovative Fluorescence Detection Technique Using Nano Carbon Quantum Dots (NCQD) for Rapid Quantification of Most Probable Number (MPN) in Water. **International Journal of Environmental Research**, 19(2), 59. DOI:10.1007/s41742-024-00708-0 |
| **2.** | Agrawal, P., Sinha, J., Jangre, N., Kumar, F., Sinha, A., Singh, A., ... & Pasupuleti, S. (2025). Developing an efficient and optimized irrigation plan under varying water-supply regimes. **Ain Shams Engineering Journal**, 16(2), 103272. DOI:10.1016/j.asej.2025.103272 3 |
| **3.** | Islam, R., Sinha, A., Hussain, A., Usama, M., Ali, S., Ahmed, S., ... & Deshmukh, K. (2024). Application of Monte Carlo simulation and artificial neural network model to probabilistic health risk assessment in fluoride-endemic areas. Heliyon, 10(24). DOI: 10.1016/j.heliyon. 2024.e40887 |
| **4.** | Singh, A., Durbha, K. S., Sinha, A., & Pasupuleti, S. (2024). Comparative assessment of fluoride and arsenic mobilization mechanisms among the groundwater of the major affected river basins of India. **Water Supply**, 24(9), 2969-2998. DOI: 10.2166/ws.2024.196 |
| **5.** | Burman, I., & Sinha, A. (2024). Economic evaluation of submerged anaerobic hybrid membrane bioreactor operating at mesophilic temperature. **Environmental Science and Pollution Research**, 31(33), 45808-45817. DOI: 10.1007/s11356-024-34249-y |
| **6.** | Kumari, A., Sinha, A., Singh, D. B., & Pasupuleti, S. (2024). Source apportionment and health risk assessment in chromite mining area: Insights from entropy water quality indexing and Monte Carlo simulation. **Process Safety and Environmental Protection**, 184, 526-541. DOI: 10.1016/j.psep.2024.01.091 |
| **7.** | Varma, N. P., Sinha, A., Gupta, S. K., Mahato, J. K., & Chand, P. (2024). Enhanced defluoridation by nano-crystalline alum-doped hydroxyapatite and artificial intelligence (AI) modeling approach. **Frontiers in Environmental Science**, 12, 1363724. DOI: 10.3389/fenvs.2024.1363724 |
| **8.** | Raj, A., Sinha, A., Singh, A., & Pasupuleti, S. (2024). Assessment and prediction of hexavalent chromium vulnerability in groundwater by Geochemical modelling, |

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| | NOBLES Index and Random Forest Model. **Science of The Total Environment,** 906, 167570. DOI: 10.1016/j.scitotenv.2023.167570 |
| **9.** | Verma, S., & Sinha, A. (2023). Appraisal of groundwater arsenic on opposite banks of River Ganges, West Bengal, India, and quantification of cancer risk using Monte Carlo simulations. **Environmental Science and Pollution Research**, 30(10), 25205-25225. DOI: 10.1007/s11356-021-17902-8 |
| **10.** | Sivodia, C., & Sinha, A. (2023). Advanced treatment methods for the emerging contaminants: an insight into the removal of anticancer drugs. In Persistent pollutants in water and advanced treatment technology (pp. 197-211). Singapore: **Springer Nature Singapore**. DOI: 10.1007/978-981-99-2062-4_8 |
| **11.** | Sinha, A., Singh, S. P., & Gupta, A. B. (2023). Introduction to Persistent Pollutants in Water and Advanced Treatment Technology. In Persistent Pollutants in Water and Advanced Treatment Technology (pp. 3-7). Singapore: **Springer Nature Singapore**. DOI: 10.1007/978-981-99-2062-4_1 |
| **12.** | Singh, R., Sinha, A., & Ken, D. S. (2023). Occurrence of phthalates in the environment, their toxicity, and treatment technologies. In Persistent Pollutants in Water and Advanced Treatment Technology (pp. 97-131). Singapore: **Springer Nature Singapore**. DOI: 10.1007/978-981-99-2062-4_5 |
| **13.** | Raj, A., & Sinha, A. (2023). Fate and transport of chromium contaminant in environment. In Persistent Pollutants in Water and Advanced Treatment Technology (pp. 283-297). Singapore: **Springer Nature Singapore**. DOI: 10.1007/978-981-99-2062-4_12 |
| **14.** | Kumari, A., Sinha, A., & Singh, D. B. (2023). Iron-Based Modified Nanomaterials for the Efficacious Treatment of Cr (VI) Containing Wastewater: **A Review. Persistent Pollutants in Water and Advanced Treatment Technology**, 299-331. DOI: 10.1007/978-981-99-2062-4_13 |
| **15.** | Ken, D. S., Sinha, A., Ken, B. S., & Singh, R. (2023). Recent Progress in Electrochemical Oxidation Technology: Its Applicability in Highly Efficient Treatment of Persistent Organic Pollutants from Industrial Wastewater. **Persistent Pollutants in Water and Advanced Treatment Technology**, 165-196. DOI: 10.1007/978-981-99-2062-4_7 |
| **16.** | Agrawal, P., Sinha, A., Pasupuleti, S., Sinha, J., Chatterjee, A., & Kumar, S. (2022). A mathematical approach to evaluate the extent of groundwater contamination using polynomial approximation. **Water Supply**, 22(6), 6070-6082. DOI: 10.2166/ws.2022.219 Q3 |
| **17.** | Sivodia, C., & Sinha, A. (2022). Nanotechnology for Water Treatment: Recent Advancement in the Remediation of Organic and Inorganic Compounds. **Nanotechnology for Environmental Remediation**, 45-57. DOI: |

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| | 10.1002/9783527834143.ch4 |
| **18.** | Tarafdar, A., & Sinha, A. (2022). Profiling and occupational health risk assessment study on coal ashes in terms of polycyclic aromatic hydrocarbons (PAHs**). Journal of Environmental Science and Health**, Part A, 57(11), 913-926. DOI:10.1080/10934529.2022.2131291 Q3 |
| **19.** | Upadhyay, S., & Sinha, A. (2022). Waste Management in Indian Pharmaceutical Industries. In Environmental Management in India: Waste to Wealth (pp. 89-100). Cham: **Springer International Publishing**. DOI: 10.1007/978-3-030-93897-0_5 |
| **20.** | Ali S., Gupta S.K., Sinha A., Khan S.U., Ali H. 2022. Health risk assessment due to fluoride contamination in groundwater of Bichpuri, Agra, India: a case study. **Modeling Earth Systems and Environment**, 8 (1), pp. 299 – 307. DOI: 10.1007/s40808-021-01105-8 Q3 |
| **21.** | Sivodia C., Sinha A. 2022. Clay Supported Zero Valent Iron Nanocomposites: Advancement in the Field of Green Catalyst for Abatement of Persistent Pollutant. **Energy, Environment, and Sustainability**, pp. 311 – 331. DOI: 10.1007/978-981-16-8367-1_14 |
| **22.** | Burman I., Sinha A. 2022 Impact Assessment of Mixed Liquor Suspended Solids from Polyurethane Media Effluent on Ceramic Membrane Fouling in Anaerobic Hybrid Membrane Bioreactor. **Journal of Environmental Engineering (United States)**, 148 (1), art. no. 04021076,<br>DOI: 10.1061/(ASCE)EE.1943-7870.0001956<br>Q4 |
| **23.** | Agrawal P., Sinha A., Kumar S., Agarwal A., Banerjee A., Villuri V.G.K., Annavarapu C.S.R., Dwivedi R., Dera V.V.R., Sinha J., Pasupuleti S. 2022.<br>Exploring artificial intelligence techniques for groundwater quality assessment. **Water (Switzerland),** 13 (9), art. no. 1172. DOI: 10.3390/w13091172 |
| **24.** | Upadhyay S., Sinha A. 2021. Modeling cometabolism of hexavalent chromium by iron reducing bacteria in tertiary substrate system. **Scientific Reports,** 11 (1), art. no. 10864, DOI: 10.1038/s41598-021-90137-2 |
| **25.** | Ali S., Khan S.U., Gupta S.K., Sinha A., Gupta M.K., Abbasnia A., Mohammadi A.A. 2021. Health risk assessment due to fluoride exposure from groundwater in rural areas of Agra, India: Monte Carlo simulation. **International Journal of Environmental Science and Technology,** 18 (11), pp. 3665 – 3676. DOI: 10.1007/s13762-020-03084-2 |
| **26.** | Ken, D.S., Sinha, A. 2021 Dimensionally stable anode (Ti/RuO2) mediated electro-oxidation and multi-response optimization study for remediation of coke-oven wastewater. **Journal of Environmental Chemical Engineering**, 9 (1), art. no. 105025, . DOI: 10.1016/j.jece.2021.105025 |
| **27.** | Ali, S., Khan, S.U., Gupta, S.K., Sinha, A., Gupta, M.K., Abbasnia, A., Mohammadi, A.A. 2021. Health risk assessment due to fluoride exposure from groundwater in rural areas of Agra, India: Monte Carlo simulation. **International Journal of Environmental Science and Technology,** . DOI: 10.1007/s13762-020-03084-2 |
| **28.** | Burman, I. and Sinha, A*. 2020. Anaerobic hybrid membrane bioreactor for treatment of synthetic leachate: Impact of organic loading rate and sludge fractions on membrane |

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| | fouling. **Waste Management**, 108, pp.41-50. |
| **29.** | Sivodia, C. and **Sinha, A*.,** 2020. Assessment of graphite electrode on the removal of anticancer drug cytarabine via indirect electrochemical oxidation process: Kinetics & pathway study. **Chemosphere**, 243, p.125456. |
| **30.** | Kumar, R., **Sinha, A*.,** Mondal, G.C. and Masto, R.E., 2020. Effective scrap iron particles (sip) pre-treatment for complete mineralization of benzidine based azo dye effluent. **Arabian Journal of Chemistry**, 13(1), pp.134-145. (https://doi.org/10.1016/j.arabjc.2017.03.001) |
| **31.** | Upadhyay, S., Tarafdar, A. and **Sinha, A***., 2018. Assessment of Serratia sp. isolated from iron ore mine in hexavalent chromium reduction: kinetics, fate and variation in cellular morphology. **Environmental technology**. (https://doi.org/10.1080/09593330.2018.1521875) |
| **32.** | Kamal, N., Tarafdar, A., **Sinha, A***. and Kumar, V., 2020. Effect of Glucose Cometabolism on Biodegradation of Gabapentin (an Anticonvulsant Drug) by Gram-Positive Bacteria Micrococcus luteus N. ISM. 1. **Applied Biochemistry and Microbiology**, 56(4), pp.433-440. (https://doi.org/10.1134/S0003683820040067) |
| **33.** | Tarafdar, A., Chawda, S. and **Sinha, A.,** 2018. Health Risk Assessment from Polycyclic Aromatic Hydrocarbons (PAHs) Present in Dietary Components: A Meta-analysis on a Global Scale. **Polycyclic Aromatic Compounds**, pp.1-12. (https://doi.org/10.1080/10406638.2018.1492426) |
| **34.** | Burman, I. and **Sinha, A***., 2020. Performance evaluation and organic mass balance for treatment of high strength wastewater by anaerobic hybrid membrane bioreactor. **Environmental Progress & Sustainable Energy**, 39(2), p.e13311. (https://doi.org/10.1002/ep.13311) |
| **35.** | Burman, I. and **Sinha, A*.,** 2020. Performance evaluation and substrate removal kinetics in an up-flow anaerobic hybrid membrane bioreactor treating simulated high-strength wastewater. **Environmental technology**, 41(3), pp.309-321. (https://doi.org/10.1080/09593330.2018.1498132) |
| **36.** | Mishra, P., Burman, I. and **Sinha, A*.** 2020. Performance enhancement and optimization of the anammox process with the addition of iron. **Environmental Technology**, pp.1-12. (DOI: 10.1080/09593330.2020.1746408 ) |
| **37.** | Chawda, S., Tarafdar, A., **Sinha, A***. and Mishra, B.K., 2020. Profiling and health risk assessment of PAHs content in tandoori and tawa bread from India. **Polycyclic Aromatic Compounds** 40(1), pp. 21-32. (https://doi.org/10.1080/10406638.2017.1349679) |
| **38.** | Saha, S., Sarkar, S. and **Sinha, A*.,** 2019. Use of Basic Oxygen Furnace (BOF) Steel Slag for Acid Mine Drainage Treatment: A Laboratory Study. **Mine Water and the Environment**, 38(3), pp.517-527. (https://doi.org/10.1007/s10230-019-00615-3) |
| **39.** | Upadhyay, S., Saha, A.K. and **Sinha, A.***, 2019. High carbon iron filings (HCIF) and metal reducing bacteria (Serratia sp.) co-assisted Cr (VI) reduction: Kinetics, mechanism and longevity. **Journal of Environmental Management,** 236, pp.388-395. (https://doi.org/10.1016/j.jenvman.2019.02.015) |
| **40.** | Tarafdar, A. and **Sinha, A***., 2019. Discussion on the technical note entitled,"public health risk assessment following exposure to PAH-contaminated soils-specific considerations for bioaccessibility and other exposure parameters". **Science of The Total Environment**, 656, pp.1448-1451. (https://doi.org/10.1016/j.scitotenv.2018.12.231) |
| **41.** | Saha, S., Saha, P. and **Sinha, A*.,** 2019. Assessment of hazard on human health and aquatic life in acid mine drainage treated with novel technique. **Human and Ecological Risk Assessment: An International Journal,** 25(8), pp.1925-1941. |

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| | (https://doi.org/10.1080/10807039.2018.1476966) |
| **42.** | Tarafdar, A. and **Sinha, A.,** 2019. Health risk assessment and source study of PAHs from roadside soil dust of a heavy mining area in India. **Archives of environmental & occupational health**, 74(5), pp.252-262. (https://doi.org/10.1080/19338244.2018.1444575) |
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