SURESH A. KARTHA

Professor and Head, Centre for Sustainable Water Research, IIT Guwahati Guwahati, AS 781039	Phone: (0091) 361-2582422 9435734625 (M) kartha@iitg.ac.in	**Professor,** Department of Civil Engineering IIT Guwahati Guwahati, AS 781039

PERSONAL PROFILE

- Faculty and Researcher with 14+ years of experience in teaching UG and PG courses
- Investigated 6 Sponsored and 6 Consultancy projects.
- Supervised 4 Ph.D. Dissertations, 12 MTech Theses, and 15 BTech Theses.
- Edited 2 book titles on modern hydrology.
- Published over 15 articles in peer-reviewed journals

WORK EXPERIENCE

Professor, Department of Civil Engineering, IIT Guwahati	Since 2021
Associate Professor, Department of Civil Engineering, IIT Guwahati	2014 - 2021
Assistant Professor, Department of Civil Engineering, IIT Guwahati	2008 - 2014
Senior Lecturer, Department of Civil Engineering, IIT Guwahati	2007 - 2008

EDUCATION

Ph.D. IIT Kanpur, Department of Civil Engineering — April 2008
Dissertation: "Non-Ideal Flow and Transport in Heap Leaching of Precious Metals"

M.E. Anna University, Centre for Water Resources, Civil Engineering — Jan 2000

BTech University of Calicut, Civil Engineering — Jan 1998
Graduated from Government Engineering College Thrissur

HONORS AND AWARDS

Invited Lecture at Loughborough University — 2018
Was invited by Prof. D. Das to deliver lecture in the Institute Advanced Study Seminar Program at prestigious Loughborough University.

Visiting Associate Professor at AIT Bangkok — 2015
Was selected by MHRD for the Faculty Secondment Scheme by Govt of India to AIT Bangkok. There, taught classes, did research, evaluated theses, and planned course curriculum of Water Engineering Management Department at AIT. The course instructed was "Irrigation and Drainage Engineering".

Best Paper Award — 2006
15th Congress of Asia and Pacific Division of International Association of Hydraulic Research (APD-IAHR) in August 2006

G.M.Nawathe medal for Best Paper — 2005
From Indian Society for Hydraulics for best paper at Hydro-2005, Tumkur

SPECIALIZATION AND EXPERTISE

Hydrology; Groundwater Hydrology; Water Resources Engineering; Water Flow Network; Landfill Leaching; Computational Methods; Hydrometallurgy; Environmental and Contaminant Hydrology

SPONSORED PROJECTS INVESTIGATED

Sponsored Research Projects

1	Main Investigator, "Study of Glacial Dynamics and Sustainable Hydrological Resources in Arunachal Himalaya". Funded by DST Climate Change Program (Ongoing)	Grant amount: Rs. 60 lacs
2	Co-Investigator *"Mathematical Modelling of River Brahmaputra with Emphasis on Climate Change"*. Sponsored by Ministry of Water Resources, Govt. of India through Brahmaputra Board (On Going since 2017)	Grant amount: Rs. 27 million
2	Co-investigator *"Transient analysis of ditch drainage networks subjected to variable ponding distributions at the surface of the soil"* Sponsored by SERB, DST (Started 2015 and Ended 2020)	Grant amount: Rs. 40 lacs
3	Principal Investigator *"Non-ideal flow and transport in bio-heap-leaching of precious metals"*. Sponsored by DST, Ministry of Science and Technology, Govt. of India funded (Started in May 2008 and Ended in Dec-2011	Grant Amount: Rs. 10.0 lacs
4	Co-investigator *"Ganga River Basin Environmental Management Plan"*. (Part of consortium of seven older IITs) Sponsored by Ministry of Environment and Forest (Started in 2010 and Completed in 2013)	Grant Amount: Rs. 100.0 lacs (for IIT Guwahati)
5	Co-investigator of the *"Centre of Excellence for Integrated land use planning and water resource management"*. Sponsored by Ministry of Urban Development, Govt. of India. (Started in 2010 and Completed in 2013)	Grant Amount: Rs. 169 million

Consultancy Projects

1	Principal Investigator *"Hydraulic flow model simulation study of Kley River stretch between Bochiliya (upstream) to Siro Village (downstream) and the seven tributaries in the stretch for flood protection measures"* Funded by Govt. of Arunachal Pradesh	Grant Amount Rs.7.0 lacs
2	Principal Investigator *"Preparation of Village Water Security Plan; Hydrogeology of Springs; and Feasibility of Structures of Eight Villages of Poma River basin"* Funded by State Climate Cell, Govt. of Arunachal Pradesh (Started Aug-2020 and completed Feb 2021)	Grant amount: Rs. 11.80 lacs
3	Principal-Investigator "*Verification of modified design of Intake Well No.3 of South Guwahati West Water Supply Project due to incomplete sinking"*. Funded by Gammon India for Govt. of Assam (Started Jan-2019 and Completed Mar 2019)	Grant amount: Rs. 2.9 lacs
4	Principal-Investigator "*Technical Proof Checking of Sewerage Pipeline Network Scheme for Naharlagun City of Arunachal Pradesh"*. Funded by M/s Kurung Kumey Enterprise (Started Aug-2020 and Completed Sept 2020)	Grant amount: Rs. 1.5 lacs

5	Principal-Investigator "*Technical Checking of Design and Drawings of External Water Supply, External Sewerage Drainage including STP of 2000 KLD Capacity and External Electrical Services for Pocket I and Pocket II".* Funded by M/s Space Designers International (Started Sept-2020 and Completed Nov 2020)	Grant amount: Rs. 2.9 lacs
6	Co-Investigator "*Vetting of Revised Cost Estimate of New Umtru H.E. Project, Dehal, Byrnihat, Ri-bhoi District, Meghalaya".* Funded by Meghalaya Power Corporation Limited (Started Sept-2018 and Completed Dec 2019)	Grant amount: Rs. 28.5 lacs
7	Co-Investigator "*"Anti-Erosion Measure Scheme for Avulsion of the Brahmaputra River (Phase-I and II) at Dhola-Hatighuli".* Funded by Brahmaputra Board Limited (Started 20210 and Ended 2010)	Grant amount: Rs. 10.0 lacs

TEACHING EXPERIENCE

Courses Taught

- Hydrology and Water Resources Engineering
- Fluid Mechanics
- Subsurface Hydrology
- Numerical Methods
- Stochastic Hydrology
- Engineering Mechanics
- Advanced Fluid Mechanics
- Surface Water Hydrology
- Surveying
- Engineering Drawing Tutorial

Doctoral Students Advised

- Shiferaw Chaemiso, "Hydrological Assessment of LULC and Climate Change within the Water Resource Development Scenarios of Omo Gibe Basin, Ethiopia". (Graduated in 2022).
- Laveti Satish, "River-Aquifer Interactions in Kosi Basin using Hydrological Models and Remote Sensing Inputs" (Graduated in 2020)
- Debraj Biswas, "Temperature Effects on Capillary Pressure in Unsaturated Soils". (Graduated in 2019)
- R. Someswaran, "Numerical Modelling of Non-equilibrium Reactive Transport in Acid Mine Drainage". (Graduated in 2019)
- Pranab Jyoti Barman, "Experimental Investigations of Leaching of Sodium, Calcium, Potassium, and Zinc through Refuse Soil from Boragaon Landfill (Guwahati)." (Graduated in 2017)

PUBLICATIONS

Peer Reviewed Journals

1. Ghosh, A., & Kartha, S. A. (2025). Effect of different pHs and liquid-to-solid ratios on leaching behavior of heavy metals from landfill-mined-soil-like-fractions. *Journal of Environmental Management*, *376*, 124421. https://doi.org/10.1016/j.jenvman.2025.124421.
2. Das, M., Bhattacharjya, R. K., & Kartha, S. A. (2024). Estimation of virus transport parameters in both unsaturated-saturated zone using numerical simulation and flower pollination algorithm. *Groundwater for Sustainable Development*, *26*, 101183. https://doi.org/10.1016/j.gsd.2024.101183.
3. Das, M., Bhattacharjya, R. K., & Kartha, S. A. (2024). ANN-SFLA based parameter estimation method for an unsaturated–saturated simulation model. *Modeling Earth Systems and Environment*, *10*(1), 751-765. https://doi.org/10.1007/s40808-023-01797-0.
4. Maheshwari B.; Hagare D.; Spencer R.; Dollin J.; Reynolds J.; Atkins D.; Packham R.; Batelaan O.; Sitharam T.G.; Lan Y.C.; Arora M.; Kashyap R.; Kartha S.; Sathasivan A.; Dutta S. (2023). Training young water professionals in leadership and transdisciplinary competencies for sustainable water management in India. World Water Policy, https://doi.org/10.1002/wwp2.12114.
5. Chaemiso, S. E., Kartha, S. A., & Pingale, S. M. (2023). Modelling the impact of hydrological parameter effect on streamflow due to futuristic climate change scenarios in the South Omo-Gibe River basin, Ethiopia. *Sustainable Water Resources Management*, *9*(1), 34. https://doi.org/10.1007/s40899-022-00812-z.
6. Ghosh, A., & Kartha, S. A. (2023). Composition and characteristics of excavated materials from a legacy waste dumpsite: Potential of landfill biomining. *Environmental Research and Technology*, *6*(2), 108-117. https://doi.org/10.35208/ert.1245574.
7. Laveti, N. V. S., Banerjee, A., Kartha, S. A., & Dutta, S. (2021). Impact of anthropogenic activities on river-aquifer exchange flux in an irrigation dominated Ganga river sub-basin. *Journal of Hydrology*, *602*, 126811. https://doi.org/10.1016/j.jhydrol.2021.126811.
8. Chaemiso, S. E., Kartha, S. A., & Pingale, S. M. (2021). Effect of land use/land cover changes on surface water availability in the Omo-Gibe basin, Ethiopia. *Hydrological Sciences Journal*, *66*(13), 1936-1962. https://doi.org/10.1080/02626667.2021.1963442
9. Laveti, N. V. S., Banerjee, A., Kartha, S. A., & Dutta, S. (2021). Anthropogenic influence on monthly groundwater utilization in an irrigation dominated Ganga river Sub-Basin. *Journal of Hydrology*, *593*, 125800. https://doi.org/10.1016/j.jhydrol.2020.125800.

10. Sarmah, R., Barua, G., & Kartha, S. A. (2020). Experimental and analytical investigation of ponded ditch drainage system with temporal boundaries. *Journal of Hydrologic Engineering*, *25*(12), 04020052. https://doi.org/10.1061/(ASCE)HE.1943-5584.0002012.
11. Sharma, A., Swami, D., Joshi, N., Kartha, S., Chandel, A., & Guleria, A. (2020). Study of dynamic concentration gradient on mass transfer coefficient: New approach to mobile–immobile modeling. *Journal of Hazardous, Toxic, and Radioactive Waste*, *24*(4), 04020036. https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000523.
12. Deb D., Kartha S.A. (2019). "Numerical Modeling on Transport of Toxic Metals Leached from Boragaon Landfill in Unsaturated Media". Hydrology Journal (IAH), Vol. 42 (1-4), 11-26
13. Ghosh A., Kartha S.A., Mondal S., Dutta R. (2019). "Physical and Numerical Modeling of Non-Reactive Solute Transport in a Heterogeneous Laboratory Aquifer Model". Hydrology Journal (IAH), Vol. 42 (1-4), 27-40
14. Biswas, D., & Kartha, S. A. (2019). Conceptual modeling of temperature effects on capillary pressure in dead-end pores. *Sādhanā*, *44*(5), 117. https://doi.org/10.1007/s12046-019-1108-y.
15. Barman, P. J., Kartha, S. A., & Pradhan, B. (2015). Empirical approach to predict leached nutrients from landfill site. *Environmental Science and Pollution Research*, *22*(9), 6619-6633. https://doi.org/10.1007/s11356-014-3844-1
16. Kartha, S. A., & Srivastava, R. (2012). Slow and fast transport in heap leaching of precious metals. *Transport in porous media*, *94*(3), 707-727. https://doi.org/10.1007/s11242-012-0020-2
17. Kartha S.A. (2011), "Non-Ideal Solute Transport Model on Heap Leaching of Oxide Copper Ores". International Journal of Earth Sciences and Engineering, Vol. 4(06 SPL), pp. 451-458 (ISSN 0974-5904)
18. Kartha, S. A., & Srivastava, R. (2008). Effect of slow and fast moving liquid zones on solute transport in porous media. *Transport in porous media*, *75*(2), 227-247. https://doi.org/10.1007/s11242-008-9219-7.
19. Kartha, S. A., & Srivastava, R. (2008). Effect of immobile water content on contaminant transport in unsaturated zone. *Journal of hydro-environment research*, *1*(3-4), 206-215. https://doi.org/10.1016/j.jher.2007.12.002.
20. Kartha, S. A., & Srivastava, R. (2006). Nonideal transport in vadose zone due to leaching from a landfill. ISH Journal of Hydraulic Engineering, 12(3), 12-20. https://doi.org/10.1080/09715010.2006.10514845.

Books

1. Sarma A.K., Singh V.P., Bhattacharjya R.K., Kartha S.A. (Editors) (2018), “Urban Ecology, Water Quality and Climate Change. Watershed Management and Socio-

Economic Aspects". Water Science and Technology Library, Vol. 84, Springer International Publishing, Switzerland

2. Sarma A.K., Singh V.P., Kartha S.A., Bhattacharjya R.K. (Editors) (2016). "Urban Hydrology, Watershed Management and Socio-Economic Aspects". Water Science and Technology Library, Vol. 73, Springer International Publishing, Switzerland. https://doi.org/10.1007/978-3-319-40195-9.
3. Sarma, A. K., Mahanta, C., Bhattacharya, R., Dutta, S., Kartha, S., Kumar, B., & Sreeja, P. (2012). Urban carrying capacity: Concept and calculation. *Centre of Excellence: Assam, India*.

Book Chapters

1. Ghosh, A., & Kartha, S. A. (2024). Landfill biomining of legacy waste dumpsites in India: process, challenges and future perspective. In *Environmental Engineering and Waste Management: Recent Trends and Perspectives* (pp. 377-390). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-58441-1_13.
2. Anoop, C. K., Baby, A., Jacob, T. M., & Kartha, S. A. (2021). Scientific Area Calculation of a Landfill in Boragaon Guwahati. In *River Hydraulics: Hydraulics, Water Resources and Coastal Engineering Vol. 2* (pp. 347-355). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-81768-8_29.

Conferences

1. Nanda, M., Narayan, U., Nair, A. M., & Kartha, S. A. (2025). Isotopic insights into cold region hydrology: Decoding isotopic signatures of snow and glacier in Khangeri glacier, North-eastern Himalaya. In *EGU General Assembly Conference Abstracts* (pp. EGU25-15091).
2. Kainat Aziz, Suresh A. Kartha (2025). "Snowmelt-Driven Hydrology in the Eastern Himalayas: A SWAT-Based Analysis of Discharge and Snow Cover Changes in Mago Basin, Arunachal Pradesh", IAMAS-IACS-IAPSO Joint Assembly 2025 (BACO-25).
3. Kainat Aziz, Tamal Majumdar, Suresh A. Kartha (2024). "Mapping Seasonal Snow Cover Variation in the Mago River Basin of Arunachal Pradesh using Ensemble Machine Learning Algorithm", 2024 IEEE India Geoscience and Remote Sensing Symposium (InGARSS) , IEEE [2024].
4. Kainat Aziz, Sateesh Barre, Pradeep Srinivasalu, Suresh A. Kartha. (2024). "Parametric Analysis of Lidder Basin Glaciers in Kashmir Himalayas using Multi-Source Data", 2024 IEEE India Geoscience and Remote Sensing Symposium (InGARSS) , IEEE [2024]
5. Kumar, S., Manga, M., Dixit, A., Nanda, M., Kartha, S. A., & Nair, A. M. (2024). Hydrogeochemical Assessment of the Water Resources in the Brahmaputra River Basin, Northeast India. In *AGU Fall Meeting Abstracts* (Vol. 2024, pp. H02-21).
6. Haldar, S., Kartha, S. A., & Bhar, K. K. (2024). Zone Budgeting of Chakdah Block of Nadia District, West Bengal, Using MODFLOW-6. In *International Conference on*

Hydraulics, Water Resources and Coastal Engineering (pp. 479-491). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-97-7474-6_35.

7. Ghosh, A., & Kartha, S. A. (2024). Assessment of pH-Dependent Leaching Characteristics of Heavy Metals from Landfill-Mined-Fine-Fractions. In *International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering* (pp. 173-181). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-96-1873-6_16.
8. Das, B., & Kartha, S. A. (2024). Analysing the Impact of Climate Change on World's Glacier System using Statistical based Glacier Health Monitoring Index (GHMI). *AGU23*.
9. Haldar, S., Kartha, S. A., & Bhar, K. K. (2023). Zone Budgeting of Chakdah Block of Nadia District, West Bengal, Using MODFLOW-6. In *International Conference on Hydraulics, Water Resources and Coastal Engineering* (pp. 479-491). Singapore: Springer Nature Singapore.
10. Ghosh, A., & Kartha, S. A. (2023). Assessment of total content and leaching potential of heavy metals from Landfill-mined-Fine-Fractions under various re-use scenarios. In *International Conference on Solid Wastes 2023: Waste Management in Circular Economy and Climate Resilience (ICSWHK2023)* (pp. 578-581).
11. Ghosh, A., Gogoi, N., Kartha, S. A., & Mondal, S. (2023). *Geochemical Evaluation and Spatiotemporal Distribution of Fluoride in Groundwater of the Sedimentary Alluvial Plain of Bankura District, West Bengal, India* (No. EGU23-9327). Copernicus Meetings. https://doi.org/10.5194/egusphere-egu23-9327.
12. Ghosh, A., Kartha, S. A., & Mondal, S. (2022). Simulation of Fluoride Migration in Groundwater of the Affected Areas of Shilabati Riverbank, West Bengal, India. In *Sustainable Water Resources Management: Proceedings of SWARM 2020* (pp. 217-227). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-16-7535-5_24.
13. Ghosh, A., & Kartha, S. A. (2022). Simulation of heavy metals migration in groundwater from a non-engineered landfill to an eco-sensitive wetland. In *AGU Fall Meeting Abstracts* (Id: H13A-07), 12-16 December 2022, Chicago, Illinois, USA.
14. Venkata Satish Laveti, N., Kartha, S. A., & Dutta, S. (2021, April). Investigating of River-Aquifer Interactions using Sub-Surface Hydrological Model and Remote Sensing Inputs in an agriculturally Dominated Kosi River Basin, India. In *EGU General Assembly Conference Abstracts* (pp. EGU21-14106). https://doi.org/10.5194/egusphere-egu21-14106.
15. Ghosh, A., & Kartha, S. A. (2020). Assessment of feasibility and viability of landfill mining of open dumpsites in INDIA. In *Fifth Symposium on Urban Mining and Circular Economy, (SUM 2020)*. Padova, Italy, 18-20 November 2020.
16. Ghosh, A., Kartha, S.A., Mondal, S., Dutta, R. (2019). Integration of physical and numerical modeling of solute transport in a laboratory aquifer model using visual

MODFLOW. In *Proceedings of the 8th International Groundwater Conference on Sustainable Management of Soil-Water Resources, IGWC-2019*, October 21-24, 2019, Roorkee, Uttarakhand, India.

17. Deb D., Kartha S.A. (2019). "A study on transport of toxic metals leached from Boragaon landfill refuse by three-dimensional modeling". Proceedings of the 8th International Groundwater Conference on Sustainable Management of Soil-Water Resources, IGWC-2019, October 21-24, 2019, Roorkee, Uttarakhand, India
18. Satish L.N.V., Dutta S., Kartha S.A. (2018). "Surface Water and Groundwater Interactions in Kosi River Basin using Surface and Subsurface Hydrological Modelling". International Conference on SWAT 2018, Indian Institute of Technology Madras, 10-12 January, 2018
19. Kartha S.A., Nandmehar H. (2017), "Experimental Observation of Breakthrough Concentrations of Pb, Na, Ca, and K in Column Leaching of Refuse Soils from Boragaon Waste Dumpsite". Proceedings of IGC-2017, 14-16th December 2017, IIT Guwahati
20. Chakraborty A., Deb D., Kartha S.A. (2017), "Study on the variation of moisture content and suction pressure in Boragaon landfill soil". Proceedings of the 7th International Groundwater Conference on Groundwater Vision 2030, IGWC-2017, 11-13th December 2017, New Delhi
21. Deb D., Chakraborty A., Kartha S.A. (2017). "Effect of cycles of irrigation on the amount of toxic metals leached into subsurface water from Boragaon waste landfill Soil". Proceedings of the 7th International Groundwater Conference on Groundwater Vision 2030, IGWC-2017, 11-13th December 2017, New Delhi
22. Kartha S.A., Pradhan B., Barman P.J. (2017). "Statistical Interpretation of Leaching of Zinc from Boragaon (INDIA) Landfill Refuse". Proceedings Sardinia-2017: 16th International Waste Management and Landfill Symposium, October 2-6, 2017, S. Margherita di Pula, Cagliari, Italy 2017 by CISA Publisher, Italy
23. Satish L.N.V., Dutta S., Kartha S.A. (2017). "Effects of Landuse/landcover Changes on Surface Water and Groundwater Interactions in Kosi River Basin, India". International Conference of 14th Annual meeting of Asia Oceania Geosciences Society, Singapore, 6-11, August, 2017
24. Biswas, D., & Kartha, S. A. (2017). Temperature dependence of contact angle hysteresis. In *Proceedings of the 9th World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics (ExHFT-9), Foz do Iguacu, Brazil*.
25. Someswaran R., Kartha S.A. (2017). "Analysis of contaminant transport in the saturated aquifer under the condition of heterogeneity and non-equilibrium mass transfer". International Conference on Modeling of Environmental and Water Resources Systems, March 24-26, 2017, Harcourt Butler Technical University, Kanpur

26. Kartha S.A., Chowdhury S.R. (2015). "Modelling of heap leaching of caliche minerals using non-equilibrium transport ". Proceedings of Heap Leach Solutions 2015, September 14-16, 2015, Reno, Nevada, USA, pp. 371-383
27. Someswaran R., Kartha S.A. (2015). "Non-equilibrium reactive transport modeling of acid mine drainage in subsurface water". E-proceedings of 36th IAHR World Congress, 28-June – 03-July 2015, The Hague, Netherlands
28. Someswaran R., Kartha S.A. (2014). "Unsaturated physical non-equilibrium contaminant transport modeling using modified FEMWATER". 5th International and 41st National Conference on Fluid Mechanics and Fluid Power, 12-14 December 2014, IIT Kanpur
29. Nandmehar H., Kartha S.A., Deka M., Barman P.J. (2014). "Flow experimental study on heavy metal transport through landfill soil". Proceedings of National Conference on Geo-environmental issues and sustainable urban development (GEN-2014), MNNIT Allahabad October 11-12, 2014, pp. 100-103
30. Nandmehar H., Kartha S.A., Deka M., Barman P.J. (2014). "Leachate migration experimental analysis for Boragaon landfill soils, Guwahati". Proceedings of National Conference on Geo-environmental issues and sustainable urban development (GEN-2014), MNNIT Allahabad October 11-12, 2014, pp. 96-99
31. Someswaran R. and Kartha S.A. (2014). "Analysis of heterogeneity on transport of acid mine drainage". National Conference on Water and its Sustainability in Mining and Other Environment: Vision 2050 (WSME 2014), March 28-29, 2014, pp. 299-307
32. Dinesh P., Kartha S.A., Dutta S. (2014). "Groundwater Flow Modeling of Kosi Alluvial Fan in Bihar State using 3D Grid Approach". National Conference on Water and its Sustainability in Mining and Other Environment: Vision 2050 (WSME 2014), March 28-29, 2014, pp. 289-298
33. Someswaran R., Kartha S.A. (2013). "Reactive Solute Transport Modeling of Acid Mine Drainage to Unconfined Groundwater Aquifers". 40th International Association of Hydrogeologists Congress (IAH 2013), Perth Convention and Exhibition Centre, 15– 20 September 2013, Perth, Australia
34. Kartha S.A. (2012). "Diffusion Processes in Heap Leaching of Precious Metals", Invited talk given in the International Conference on Modeling and Simulation of Diffusive Processes and Applications (October 9-12, 2012) at Benares Hindu University, Varanasi, India
35. Barman P.J, Kartha S.A., Pradhan B. (2011), "A Study on Landfill Leaching Using Three-Dimensional Column Leach Apparatus". National Conference on Recent Advances in Civil Engineering Proceedings, IT-BHU Varanasi, pp. 112-115
36. Barman P.J., Kartha S.A., Pradhan B. (2010). "Landfill Leaching: An Experimental Investigation Using Column Apparatus". Proceedings of Ninth International Conference on Hydro-Science and Engineering (ICHE2010), IIT Madras. (August 2010), pp. 1255-1259

37. Kartha S.A. (2008). "Mathematical Modeling of Pollution due to Acid Leaching in Mines", Second International Congress of Environmental Research ICER-08, BITS-Pilani, Goa Campus, GOA, December 2008
38. Kartha S.A., Srivastava R. (2007). "Slow and Fast Transport in Landfill Leaching - Effect of Geomembrane", Fifth International Symposium on Environmental Hydraulics, Tempe, Arizona, USA
39. Kartha S.A., Srivastava R. (2006). "Effect of Immobile Water Content on Contaminant Transport in Unsaturated Zone", Proceedings of the 15th Asia-Pacific Division of International Association of Hydraulic Research (APD-IAHR). August 2006, pp.1431-1436
40. Kartha S.A., Srivastava R. (2005). "Non-ideal transport in vadose zone due to leaching from a landfill". Proceedings of the National Conference HYDRO-2005, Indian Society of Hydraulics and SIT-Tumkur, December 2005, pp. 111-120

PROFESSIONAL SERVICE

Symposium Co-Organizer

- Coordinator for the GIAN course project "Role of flow and mass transport in porous media for design of chemical reactors for groundwater remediation" in Aug 2018 (Project Cost Approx. 8000 USD)
- Developed the video course on "Advanced Hydraulics" under the National Programme on Technology Enhanced Learning - NPTEL (2012)

Peer-Reviewed Articles for:

- ASCE Journal of Environmental Engineering
- Journal of Hydrology, Elsevier
- ASCE Journal of Hazardous, Toxic, and Radioactive Wastes
- Transport in Porous Media
- ISH Journal of Hydraulic Engineering

PhD Thesis Reviewer and Examiner

- IIT Roorkee
- IIT Bombay
- Anna University

ADMINISTRATIVE POSTS

- Head, Centre for Sustainable Water Research 2022-
- Chairman, Sports Board, IIT Guwahati 2019 – 2021
- TEQIP Coordinator of Department of Civil Engineering 2018 – 2019
- Faculty In-Charge, Water Resources Engineering Laboratory 2016-2018

OTHER EXTRA-CURRICULAR ACTIVITIES

- Avid fan of Lawn Tennis and ATP Tour

- Follows Cricket
- Practiced Taekwondo