

LIST OF PUBLICATIONS

Faculty: Dr Kousik Das

Department of Environmental Sciences

JOURNAL PUBLICATIONS

Dr Kousik Das - "Groundwater Salinity Across India: Predicting Occurrences and Controls by Field-Observations and Machine Learning Modeling" in Environmental Science & Technology (Q1 Journal, IF 11.4)

Influence of hydrology and sanitation on groundwater coliform contamination in parts of Western Bengal Basin: Implication to safe drinking water - Dey, U., Sarkar, S., Duttagupta, S., Bhattacharya, A., **Das, K.**, Saha, S., Mukherjee, A. Frontiers in Water 84, (2022).

Shallow and deep submarine groundwater discharge to a tropical sea: Implications to coastal hydrodynamics and aquifer vulnerability - **Das, K.**, Debnth, P., Layek, M.K., Sarkar, S., Ghosal, S., Mishra, A.K., Choudhury, K., Agrahari, S., Sengupta, P., Lane, J., Mukherjee, A. Journal of Hydrology (605), 127335 (2022).

Observing tidal and storm generated wave height impact on groundwater levels in a tropical delta (the Sundarbans) - **Das, K.**, Sarkar, S., Mukherjee, A., Das, P., Pathak, A. Journal of Hydrology 603, 126813 (2021).

Impact of global-scale hydroclimatic patterns on surface water-groundwater interactions in the climatically vulnerable Ganges river delta of the Sundarbans - **Das, K.**, Mukherjee, A., Malakar, P., Das, P., Dey, U. Science of The Total Environment 798, 149198 (2021).

Socio-Hydrological Approach to Explore Groundwater–Human Wellbeing Nexus: Case Study from Sundarbans, India - Halder, S.,

Solute exchange between multi-depth groundwater and surface water of climatically vulnerable Gangetic delta front aquifers of Sundarbans - **Das K.**, Mishra A. K., Singh A., Agrahari S., Chakrabarti R., Mukherjee A. Journal of Environmental Management 284, 112026 (2021).

Quantifying the dynamics of sub-daily to seasonal hydrological interactions of Ganges river with groundwater in a densely populated city: Implications to vulnerability of drinking water sources - Das, P., Mukherjee, A., Lapworth, D.J., **Das,K.**, Bhaumik, S., Layek, M.K., Shaw, A., Smith, M., Sengupta, P., MacDonald, A.M., Sen, J. Journal of Environmental Management 288, 112384 (2021).

Implication of submarine groundwater discharge to coastal ecology of the Bay of Bengal. **Das, K.**, Debnath, P., Duttagupta, S., Sarkar, S., Agrahari, S., Mukherjee, A. Journal of Earth System Science 129 (1), 50 (2020).

Stable isotope dynamics of interaction of groundwater with the Ganges river - Das, P., Mukherjee, A., Hussain, S.A., Jamal, S., **Das, K.**, Shaw, A., Layek, M.K., Sengupta, P. *Hydrological Processes* 35(1), e14002 (2020).

Achieving Sustainable Development Goal for Clean Water in India: Influence of Natural and Anthropogenic Factors on Groundwater Microbial Pollution - Duttagupta, S., Mukherjee, A., Bhanja, S.N., Chattopadhyay, S., Sarkar, S., **Das, K.**, Chakraborty, S., Mondal., D. *Environmental Management*, 1-14 (2020).

Groundwater vulnerability to pesticide pollution assessment in the alluvial aquifer of Western Bengal basin, India using overlay and index method - Duttagupta, S., Mukherjee, A., **Das, K.**, Dutta, A., Bhattacharya, A., Bhattacharya, J. *Geochemistry* 80(4), 125601 (2020).

Depth-dependent groundwater response to coastal hydrodynamics in the tropical, Ganges river mega-delta front (the Sundarbans): Impact of hydraulic connectivity on drinking water vulnerability - **Das, K.**, Mukherjee, A. *Journal of Hydrology* 575, 499-512 (2019).

Seasonal-to-diurnal scale isotopic signatures of tidally-influenced submarine groundwater discharge to the Bay of Bengal: Control of hydrological cycle on tropical oceans - Debnath, P., **Das, K.**, Mukherjee, A., Ghosh, N.C., Rao, S., Kumar, S., Krishan, G., Joshi, G. *Journal of Hydrology* 571, 697-710 (2019).

Characterization of tidally influenced seasonal nutrient flux to the Bay of Bengal and its implications on the coastal ecosystem - Debnath, P., Mukherjee, A., **Das, K.** *Hydrological Processes* 32(9), 1282-1300 (2018).

Ecophysiological evaluation of tree species for biomonitoring of air quality and identification of air pollution-tolerant species - Sen, A., Khan, I., Kundu, D., Das, K., Datta, J. K. *Environmental monitoring and assessment* 189(6), 262 (2017).

Delineation of groundwater quality in the presence of fluoride in selected villages of Simlapal block, Bankura district, West Bengal, India - **Das, K.**, Dey, U., & Mondal, N. K. *Sustainable Water Resources Management* 2(4), 439-451 (2016).

Dental fluorosis and urinary fluoride concentration as a reflection of fluoride exposure and its impact on IQ level and BMI of children of Laxmisagar, Simlapal Block of Bankura District, WB, India - **Das, K.**, Mondal, N. K. *Environmental monitoring and assessment*, 188(4), 218 (2016).

Effective utilization of calcareous soil towards the removal of methylene blue from aqueous solution - Mondal, N. K., **Das, K.**, Das., Sadhukhan, B. *Effective utilization of calcareous soil towards the removal of methylene blue from aqueous solution. Clean Technologies and Environmental Policy* 18(3), 867-881 (2016).

Present status of soil moisture estimation by microwave remote sensing - **Das, K.**, Paul, P. K. *Cogent Geoscience*, 1(1), 1084669 (2015).

Soil moisture retrieval model by using RISAT-1, C-band data in tropical dry and sub-humid zone of Bankura district of India - **Das, K.**, Paul, P. K. The Egyptian Journal of Remote Sensing and Space Science 18(2), 297-310 (2015).

Modeling of the adsorptive removal of arsenic: a statistical approach - Roy, P., Mondal, N. K., **Das, K.** Journal of Environmental Chemical Engineering 2(1), 585-597 (2014).

Dental fluorosis among children in Laxmisagar Village, Bankura District, West Bengal, India - **Das, K.**, Dey, U., Roy, P., Pal, K. C., Mondal, N. K. Fluoride 46(4), 230-233 (2013).

Removal of arsenic (III) and arsenic (V) on chemically modified low-cost adsorbent: batch and column operations - Roy, P., Mondal, N. K., Bhattacharya, S., Das, B., **Das, K.** Applied Water Science 3(1), 293-309 (2013).

Dual effects of fluoride and calcium on the uptake of fluoride, growth physiology, pigmentation, and biochemistry of Bengal gram seedlings (*Cicer arietinum* L.) - Dey, U., Mondal, N. K., **Das, K.**, Datta, J. K. Fluoride 45(4), 389-393 (2012).

BOOK CHAPTERS

Potential Impact of Climate Change on Surface Water and Groundwater Interactions in lower reaches of Ganges river, India. Groundwater of South Asia - Hossain, S.A., **Das, K.**, Bhanja, S. Mukherjee, A. Chapter 34, pp 583-591 (2017).

ABSTRACT PUBLICATIONS

Tracing Nutrient Fluxes Associated with Saline Submarine Groundwater Discharge In A Semiarid Estuary Using Stable And Radioactive Isotopes. **Das, K.**, Murgulet, D., Lopez, C. The South-Central Section – 56 th Annual Meeting - 2022, Geological Society of America. Session: 15-1, (2022).

The drinking water vulnerability of Sundarbans in present variable hydroclimatic conditions and unsustainable management practices - **Das, K.**, Mukherjee, A., Zahid, A. Halder, S. ISARM 2021 2 nd International Conference on Transboundary Aquifers, Challenges and Way Forward, (2021).

Temporally and Spatially Varying River Ganges Water-groundwater Interaction Through Hydrograph Separation and Stable Isotope Fingerprints - Das, P., Mukherjee, A., **Das, K.**, Hussain, A., Jamal, S., Shaw, A., Layek, M.K., Sengupta, P., Basu, A. Sen, J. AGU Fall Meeting Abstracts. USA (2018).

Isotope Variations in Groundwater-Seawater Interactions in Ganges River Delta Front Aquifers - **Das, K.** and Mukherjee, A. Goldschmidt, 12-17 August, Boston, USA (2018).

Spatial and Temporal Patterns of Tidally Induced Discharged Groundwater in a micro-tidal coast of Bay of Bengal, India. Debnath, P., **Das, K.**, Mukherjee, A. Annual General Meeting of the Geological Society of India, pp. 169 (2016).

Climate Change Impacts on Coastal Groundwater System of Bengal Delta Plain - **Das, K.** and Mukherjee, A. 5 th National Conference of Ocean Society of India, On Ocean and Climate Change, 28-30 August 2017, NCESS Thiruvananthapuram (2017).