



Academic Experience

- ▶ 2022-present: Chair, Earth and Planetary Sciences, UTSA
- ▶ 2019-present: Hammond Distinguished Professor, UTSA
- ▶ 2017-18: Halbouty Visiting Chair Professor, Texas A&M
- ▶ 2008-19: Asst., Assoc., and Professor, Kansas State University
- ▶ 2005-06: Assoc. Professor, University of Calcutta
- ▶ 2001-04: Earth Sciences Mellon-Barnard, Earth Institute Fellow, Columbia University
- ▶ 2001: Ph.D., University of Western Ontario, Canada

**Director: Institute of Water Research
 Sustainability and Policy-IWRSP, UTSA**

Research Interests

Our research focuses on issues of water resources, water availability, and understanding the cycling of different trace metals, nutrients, and toxic organic constituents (Microplastics, PFAS, Dioxins, Organo-Nitrates, TCE) in our ground and surface waters, and soils as well as how land use pattern changes affect the distribution of metals and pollutants in our environment. Our research projects have links to health impact assessments, targeting human health.

Laboratory Capabilities

Analytical: Lab Currently has: IRMS-Stable Isotope; Thermo-Dionex Ion Chromatogram, Shimadzu TOC-L-TDN Analyser, Horiba AquaLog Spectrometer, Thermo-FTIR Nicolet IS 20-MidInfrared, HACH UV-VIS Spectrophotometers, Agilent ICP-OES, NeXioN ICP-MS, Thermo-GCMS, Horiba HydroLab, ODLAB Acid Purification System, Laminar Flow-Hood with Exhaust and Anaerobic Chambers, Microwave Digestion System, Malvern Particle Size Analyser

Teaching

Aqueous Geochemistry, Physical Hydrology

Awards

Geological Society of America Fellow 2022

Lab website: <https://www.utsa.edu/sciences/labs/SaugataDatta/>

Current Research

Geologic CO₂ Capture and Drinking Water Security, Surfactant Analyses, High Pressure- High Temperature Brine-Water-SupCrit-CO₂



Groundwater Contamination, Assessment of Organics and Solid Phase Speciation of Metals in waters and solids; Desalination, Advanced Water Purification



Trace Element Biogeochemistry in Waters – As, NO₃, W, Pb, F, Cu, Mn, Cr



Lead Isotopes as Exposure Tracer in Children's Blood- Radiogenic Isotopes of Lead in Blood and Urine by MC-ICP-MS



Soil Nutrients-Phosphates, Graphene based Sensor Developments, Electrochemistry, Real Time Measurements



Research Sponsors

