

Abhijit Mukherjee
Curriculum Vitae
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Education

- **Ph.D.** in Geology, University of Kentucky, USA, 2006; (grade-point average [GPA] 4.0/4.0)

Dissertation title: Deeper groundwater flow and chemistry of the arsenic contaminated aquifers of the western Bengal basin, West Bengal, India.

Advisor: Dr. Alan E. Fryar

- **Master of Science (M.S.)** in Geology, University of Kentucky, USA, 2003 (GPA 4.0/4.0)

Thesis title: Identification of natural attenuation of trichloroethene and technetium-99 along Little Bayou Creek, McCracken County, Kentucky.

Advisor: Dr. Alan E. Fryar

- **Professional Diploma** in Software Engineering, National Institute of Information Technology (NIIT), India, 2001
- **Master of Science (M.Sc.)** in Geology, University of Calcutta, India, 1999 (First Class)

Thesis title: Geotechnical study of landslides in and around the approach road to Kalimpong, Darjeeling district, West Bengal.

Advisor: Prof. Arup K. Mitra

- **Bachelor of Science with Honors (B.Sc.[Hons])** in Geology, University of Calcutta, India, 1997 (First Class)

Employment

- *Hydrogeologist*, Alberta Geological Survey, Edmonton, Canada, August 2008–Present
- *Jackson School Postdoctoral Fellow*, Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, USA, August 2006–August 2008
- *Instructor and Teaching Assistant* in Geology, University of Kentucky, USA, 2001–2006
- *Research Assistant* in Geology, University of Kentucky, USA, summers of 2002 and 2003

Research Experience

- Assessment of effects of sedimentation and tectonics on hydrology and regional numerical groundwater flow, and hydrochemical evolution simulation of the Rocky Mountain foreland basins (present job responsibility at Alberta Geological Survey).

- Surface water-groundwater interaction of glacial lakes, Alberta, Canada (present job responsibility at Alberta Geological Survey).
- Hydrochemistry and sediment chemistry, contaminant transport and groundwater dating in Central Gangetic plain and Bengal basin, India and Bangladesh, Southern High Plains, USA, Huhhot Basin, P.R. China; (for postdoctoral fellowship, August 2006-August 2008)
- Characterizing the effect of land use on recharge in semi-arid areas of northwest Texas and western India (Rajasthan) (for postdoctoral fellowship, August 2006- August 2008)
- Multiphase flow and aqueous chemistry of deep subsurface CO₂ sequestration in the Gulf Coastal Plain(FRIO-II) (for postdoctoral fellowship, September 2006- August 2008)
- Regional hydrogeology, groundwater quality, and contaminant transport in the western Bengal basin, India by computer-generated simulations, and chemical and stable isotopic characterizations (for Ph.D., 2003-2006)
- Groundwater/surface-water interactions and fate of organic and radioactive contaminants by conservative and non-conservative tracer tests and simulations at a U.S. Department of Energy facility in the northern Gulf Coastal Plain (Paducah), USA (for M.S., 2001-2003)
- Environmental geotechnical studies of lower Ganges river, India (for post-masters research at the University of Calcutta, 1999-2001)
- Geotechnical studies on causes, effects and remediation of landslides in Eastern Himalayas, India (for M.Sc., 1997-1999)

Research Skills and Expertise

Field studies, experimental studies, mathematical modeling of hydrostratigraphic framework, ground-water flow, solute transport, and reactions in the subsurface:

- Field techniques: groundwater and stream sampling (solutes, gases, volatiles, isotopes, noble gases), tracer tests, slug tests, geologic and geotechnical mapping, water-level measurements, stream gaging, deep subsurface sampling by U-Tube sampler, sediment sampling from vadose zone and aquifer
- Laboratory analyses: ICP-OES, AA-GF, IC, GC (FID, ECD, P&T and MS), IRMS, spectrofluorometers, TOC analyzer, XRD
- Geologic/modeling software: Groundwater Vistas (MODFLOW and MODPATH), PHREEQC, OTIS, ArcGIS, SURFER, RockWorks, ViewLog, Global Mapper (Remote Sensing), Aquachem, Geochemist's Workbench
- Computer/Information technology skills: Win NT architecture, C++, VC++, Win32API, VJ++, VB, networking, HTML, MS ACCESS, SYBASE

Teaching Experience

- *Ph.D. co-advisor*, Ranjan Mishra, T.M. Bhagalpur University, India
- *Instructor*, University of Kentucky—GLY 115 (Introductory Geology Laboratory), spring 2004, fall 2005, spring 2006
- *Lab Instructor*, University of Kentucky—GLY 220 (Principles of Physical Geology), spring and fall 2002, spring and fall 2003, Spring 2004, spring 2006
- *Recitation/Lecture Teaching Assistant*, University of Kentucky—GLY 110 (Endangered Planet: Introduction to Environmental Geology), fall 2001, spring and fall 2002, spring 2003; GLY 220, fall 2001, 2002
- *Lecture Teaching Assistant/Grader*, University of Kentucky—GLY 555 (Stratigraphy), fall 2005; GLY 450G (Sedimentary Geology), fall 2005; GLY 160 (Geology for Elementary Teachers), fall 2004; GLY 120 (Sustainable Planet: The Geology of Natural Resources), Fall 2004, spring 2005
- *Short Course Teaching*: Groundwater arsenic contamination in Texas: presented to Texas Commission on Environmental Quality (TCEQ), Austin, Texas, April, 2007

Special/Short Courses participated

Technical

- Tensional, compressional and transpressional structural styles, Petroskills, Edmonton, November 2008-January 2009
- MODFLOW, International Ground Water Modeling Center, Colorado School of Mines, Boulder, CO, November 2004
- Quaternary Geology, remote sensing and GIS, International Union of Quaternary Research (INQUA), Indian Chapter, Kolkata, January 1999
- Basic computer applications, Indian Institute of Computer Engineers, Asutosh College, 1994-1995
- Petrographic slide preparation and ore polishing, Asutosh College, 1994

Managerial

- Project management 101, Interthink Consultants, Edmonton, May 2009
- Effective management and leadership for engineers and scientist, Stargate Consultant Limited, Edmonton, November, 2008
- Quality Management, PQM, Kolkata, 1998

Honors/Grants

- Nominated by MIT-Harvard Arsenic Study Group for *Environmental Fellowship* at Harvard University, 2007
- *Jackson School Postdoctoral Fellowship* at University of Texas at Austin, 2006
- Offered *Earth Institute Postdoctoral Fellowship* at Columbia University, 2006
- *Dissertation Enhancement Award*, University of Kentucky, 2005
- *Ferm Grant*, Department of Geological Sciences, University of Kentucky, 2005
- *Graduate Research Award*, Hydrogeology Division, Geological Society of America, 2004
- *Pirtle Fellowship*, Department of Geological Sciences, University of Kentucky, 2004-2006
- Nominated for *Outstanding Master's Thesis Award* in Physical Sciences and Engineering, Council of Southern Graduate Schools of USA, 2003
- *Student research grant*, Geological Society of America, Southeastern Section, 2002, 2005

- *Student research grant*, Graduate School, University of Kentucky, 2002, 2004
- *Brown-McFarlan Grant* for research, Department of Geological Sciences, University of Kentucky, 2002
- Nominated for *Young Scientist Award* by Indian Science Congress Association, 2001
- *All India Rank 20th* in Graduate Aptitude Test in Engineering (GATE), Government of India, 2001
- *National Scholarship* from Government of India for excellence in graduate studies, 1999
- *Total Freedom Scholarship* from National Institute of Information Technology (NIIT), India, for software engineering study, 1997

Professional Affiliations

- Geological Society of America
- International Association of Hydrogeologists
- Indian Science Congress Association (life member)
- School of Fundamental Research

Collaborators

- Public Health Engineering Directorate, Government of West Bengal, India
- State Water Investigation Directorate, Government of West Bengal, India
- Prof. Amitabhva Chakrabarti (deceased), Department of Geology and Geophysics, IIT Kharagpur, India
- Dr. Prosun Bhattacharya, Department of Land and Water Resources Engineering, Royal Institute of Technology (KTH), Stockholm, Sweden
- Dr. Gunnar Jacks, Department of Land and Water Resources Engineering, Royal Institute of Technology (KTH), Stockholm, Sweden
- Dr. Sudipta Rakshit, Lawrence Berkley National Lab/ Montclair University, USA
- Dr. Karen Johannesson, Department of Geology, Tulane University, USA
- Prof. A.L. Ramanathan, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India
- Prof. Dipak Ghosh and Dr. Argha Deb, School of Environmental Radiation, Jadavpur University, Calcutta, India
- Prof. Amarendra K. Sinha, Department of Geology, University of Rajasthan, India
- Dr. Ben Rostron, Department of Earth and Atmospheric Sciences, University of Alberta, Canada
- Dr. David Atwood, Department of Chemistry, University of Kentucky, USA
- Prof. Kazi Matin Ahmed, Department of Geology, Dhaka University, Bangladesh
- Prof. Ashok Ghosh, A.N. College, Patna, India
- Prof. Sunil Chaudhary, T.M. Bhagalpur University, Bhagalpur, India
- Prof. Debashis Chatterjee, Department of Chemistry, Kalyani University, India
- Dr. Jochen Bundschuh, University of Applied Research, Karlsruhe, Germany
- Dr. Arun B. Mukherjee, Department of Biological and Environmental Sciences, University of Helsinki, Finland

Professional Services

Editorial

- *Managing Guest Editor*, Special issue on arsenic in natural hydrologic systems, *Journal of Contaminant Hydrology*, 2008, vol. 99 no. 1-4
- *Managing Guest Editor*, Special issue on arsenic and related contaminants in groundwater, *Applied Geochemistry* (in preparation)
- *Guest Editor*, Special issue Arsenic: From Nature to Human, *Journal of Environmental Science and Health* (in preparation)
- Member, Editorial Board, Asian Network of Scientific Information

Reviewer

- *Journal Reviewer*: Journal of American Society of Agricultural and Biological Engineers, Journal of Environmental Management, Journal of Contaminant Hydrology, Journal of Hydrology, Ground Water, Hydrogeology Journal
- *Proposal Reviewer*: Low Temperature Geochemistry and Microbiology Division, National Science Foundation, USA

Technical Conference/Committee Organization

- *Co-Chair* (with Prosun Bhattacharya, KTH, Sweden and Alan E. Fryar, University of Kentucky, USA) of “Arsenic and other toxic elements in groundwater”, Geological Society of America Annual Meeting, to be held in Portland, Oregon, 2009
- *Co-Chair* (with John Cherry and Beth Parker, University of Guelph and Tony Lemay, AGS, Ben Rostron, University of Alberta, Canada,) of “Groundwater in sedimentary basins” American Geophysical Union Joint Assembly, Toronto, ON, 2009
- *Co-Chair* (with Prosun Bhattacharya, KTH, Sweden and D. Kirk Nordstrom, USGS) of “Global problem of arsenic contamination of groundwater”, Geological Society of America Annual Meeting, Houston, TX, 2008
- *Co-Chair* (with Jean-Phillipe Nicot, University of Texas at Austin) of “Arsenic Contamination and Mobilization in Natural Groundwater Systems”, American Geophysical Union, San Francisco, CA, 2007
- *Co-Chair* (with Prosun Bhattacharya, KTH, Stockholm, Sweden, Alan H. Welch, USGS, and Jochen Bundschuh, Instituto Costarricense de Electricidad, Costa Rica) of "Arsenic: from nature to human", Geological Society of America Annual Meeting, Denver, CO, 2007
- *Committee Member*, Scientific Advisory Committee, International Conference on Coastal Zone Environment and Sustainable Development, 2007
- *Co-chair* (with Prosun Bhattacharya, KTH, Stockholm, Sweden, Kaye Savage, Vanderbilt University, and Andrea Foster, U.S. Geological Survey) of "Arsenic and related metalloids in groundwater and surface water systems" topical session, Geological Society of America Annual Meeting, Philadelphia, PA, 2006
- *Co-chair* (with Alan E. Fryar, University of Kentucky, and Alan Welch, U.S. Geological Survey) of “Arsenic occurrence and fate in hydrogeologic systems” topical session, Geological Society of America Annual Meeting, Salt Lake City, Utah, 2005
- *Co-convener*, Graduate and undergraduate research symposium, Department of Geological Sciences, University of Kentucky, 2003
- *Convener*, Green Circle of India (a non-governmental environmental research organization), 1999-2001

List of Publications

Book/Encyclopedia Chapter

- Mukherjee, A.**, Fryar, A.E., and O’Shea, B.M., 2009, Major occurrences of elevated arsenic in groundwater and other natural waters, in Henke, K.R., ed., Arsenic—Environmental Chemistry, Health Threats and Waste Treatment: Chichester, U.K., John Wiley & Sons, p. 303–350.
- Bhattacharya, P., **Mukherjee, A.**, Mukherjee, A.B. *in press*. Arsenic contaminated groundwater of India. In Nriagu, J. (ed.): Encyclopedia of Environmental Health. Elsevier B.V. (Netherlands)

Journal Articles

- Mukherjee, A.**, Scanlon, B.R., Gates, J.B., Reedy, R.C., Sinha, A.N., *in review*. Recharge rates and nutrient availability in (Semi)Arid areas in the Thar Desert, Rajasthan India. *Hydrogeology Journal*.
- Scanlon, B.R., Nicot, J.P., Reedy, R., Kurtzman, D., **Mukherjee, A.**, Nordstrom, D.K., *in review*. Naturally occurring arsenic contamination in a semiarid oxidizing system, southern Ogallala aquifer, USA. *Applied Geochemistry*.
- Mukherjee, A.**, Bhattacharya, P., Shi, F., Fryar, A.E., Mukherjee, A.B., Xie, Z.M., Sracek, O., Jacks, G., Bundschuh, 2009. Chemical evolution in high arsenic groundwater in Huhhot basin, Inner Mongolia, P.R. China and its difference from Western Bengal basin, India. *Applied Geochemistry*, vol. 24, 1835-1851
- Mukherjee, A.**, Fryar, A.E., and Thomas, W.A., 2009. Geologic, geomorphic and hydrologic framework and evolution of the Bengal basin, India. *Journal of Asian Earth Sciences*, vol. 34, no.3, 227-244
- LaSage, D.M., Sexton, J.L., **Mukherjee, A.**, Fryar, A.E., 2008. Groundwater discharge along a channelized Coastal Plain stream. *Journal of Hydrology*, vol. 360, no. 1-4, 252-264.
- LaSage, D.M., Fryar, A.E., **Mukherjee, A.**, Sturchio, N.C., Heraty, L.J., 2008. Groundwater-derived contaminant fluxes along a channelized Coastal Plain stream. *Journal of Hydrology*, vol. 360, no. 1-4, 265-280.
- Mukherjee, A.**, Fryar, A.E., 2008. Deeper groundwater chemistry and geochemical modeling of the arsenic affected western Bengal basin, West Bengal, India. *Applied Geochemistry*, vol. 23, no. 4, 863-892
- Mukherjee, A.**, von Brömssen, M., Scanlon, B.R., Bhattacharya, P., Fryar, A.E., Hasan, M.A., Ahmed, K.M., Jacks, G., Chatterjee, D., Sracek, O., 2008. Hydrogeochemical comparison and effects of overlapping redox zones on groundwater arsenic near the western (Bhagirathi sub-basin, India) and eastern (Meghna sub-basin, Bangladesh) of the Bengal basin. *Journal of Contaminant Hydrology*, vol. 99, no. 1-4, 31-48.
- Mukherjee, A.**, Bhattacharya, P., Savage, K., Foster, A., Bundschuh, J., 2008. Distribution of geogenic arsenic in hydrologic systems: controls and challenges. *Journal of Contaminant Hydrology*, vol. 99, no. 1-4, 1-7.
- Mukherjee-Goswami, A., Nath, B., Jana, J., Sahu, S.J., Sarkar, M.J., Jacks, G., Bhattacharya, P., **Mukherjee, A.**, Polya, D.A., Jean, J-S, Chatterjee, D., 2008. Hydrogeochemical behavior of arsenic-enriched groundwater in the deltaic

- environment: comparison between two study sites in West Bengal, India. *Journal of Contaminant Hydrology*, vol. 99, no. 1-4, 22-30.
- Mukherjee, A.**, Fryar, A.E., and Howell, P., 2007. Regional hydrostratigraphy and groundwater flow modeling of the arsenic contaminated aquifers of the western Bengal basin, West Bengal, India. *Hydrogeology Journal*, vol. 15, 1397-1418.
- Mukherjee, A.**, Fryar, A.E., and Rowe, H.D., 2007. Regional scale stable isotopic signature and recharge of the deep water of the arsenic affected areas of West Bengal, India. *Journal of Hydrology*, vol. 334, no. 1-2, 151-161.
- Mukherjee, A.**, Fryar, A.E., and LaSage, D.M., 2005. Using tracer tests to assess natural attenuation of contaminants along a channelized Coastal Plain stream. *Environmental & Engineering Geoscience*, vol. 11, no. 4, 371-381.
- Mukherjee, A.**, and Mitra, A.K., 2001. Geotechnical study of mass movements along the Kalimpong approach road in the eastern Himalayas. *Indian Journal of Geology*, vol. 73, no. 4, 271-279.
- Mukherjee, A.**, Fryar, A.E., Scanlon, B.R., Bhattacharya, P., Bhattacharya, A., in submission. Elevated arsenic in deeper groundwater of western Bengal basin, India. *Ground Water*
- Ghosh, D., Deb, A., Fryar, A.E., **Mukherjee, A.**, Patra, K., and Sengupta, R., in review. Deeper groundwater alpha radioactivity and related chemistry of the arsenic polluted areas of West Bengal, India. *Journal of Environmental Radioactivity*.
- Mukherjee, A.**, Scanlon, B.R., Chaudhari, S., Mishra, R., Fryar, A.E., Ghosh, A., in preparation. Geologic and geomorphic controls on distribution of arsenic and other solutes in the shallow groundwater of the Central Gangetic Plain, India. To be submitted to *Ground Water*

Conference Papers

- Mukherjee, A.**, Fryar, A.E., 2007. Regional groundwater dynamics and hydrochemical evolution in the coastal aquifers of western Bengal basin. In Proceedings of International Conference on Coastal Zone Environment and Sustainable Development, New Delhi, India.
- Mukherjee, A.**, Scanlon, B.R., Fryar, A.E., 2007. Geologic controls on arsenic distribution in lower Gangetic plain, India. In Proceedings of International Conference on Arsenic in Groundwater, Kolkata, India.
- Fryar, A.E., and **Mukherjee, A.**, 2006. Arsenic pollution in western Bengal basin: Is deeper water an alternate safe source? In Laftouhi, N., and Hanich, L., eds., Proceedings of the International Congress on Integrated Water Resources Management and Challenges of the Sustainable Development (GIRE3D), Marrakech, Morocco.
- Mukherjee, A.**, Fryar, A.E., and Chakraborti A., 2004. Regional groundwater chemistry and its relation to arsenic contamination in the western Bengal basin. In Proceedings XXXIII Congress IAH & 7^o Congress ALHSUD, International Association of Hydrogeologists, Zacatecas, Mexico, paper WS-AS-04, 4 p.

Conference Abstracts

- Hammarlund, L., Pionens, J., Bhattacharya, P., **Mukherjee, A.**, Nordstrom, D.K., Bundschuh, J., Alvarado. G.E., *in press*. Study of geothermal water-groundwater

- interaction and evolution in thermal fields of Costa Rica. Geological Society of America, Abstracts with Programs, 2009
- Reedy, R., Scanlon, B.R., Gates, J., Mukherjee, A., in press. Sustainable water resources in semi-arid agroecosystems. In proceedings AGU Fall meeting, 2009
- Blue, Y.L., **Mukherjee, A.**, White, E.R., Preece, C.A., Fryar, A.E., Atwood, D.A., 2009. Complete remediation of groundwater arsenic using a Merloc B9, zeovalent iron filtration column. In Proceedings of the 2009 USDA-CSREES National Water Conference
- Mukherjee, A.**, and Scanlon, B.R., 2008. An investigation in cause of high and low dissolved arsenic in the Sonal Bangla aquifer in the eastern and western bank of the river Bhagirathi-Hoogly, West Bengal, India. Geological Society of America, Abstracts with Programs
- Sur, P., Sarkar, D., Johannesson, K., **Mukherjee, A.**, Datta, S., 2008. Sediment geochemistry and mineralogy of arsenic affected areas of northern Sonar Bangla aquifer, Murshidabad, West Bengal, India. Geological Society of America, Abstracts with Programs
- Mukherjee, A.**, and Fryar, A.E., 2007. Mechanisms of arsenic contamination of deep groundwater of the western Bengal basin, India. Geological Society of America, Abstracts with Programs, vol. 39, no. 6, p. 517.
- Mukherjee, A.**, Scanlon, B.R., Chaudhary, S., Misra, R., Ghosh, A., Fryar, A.E., Ramanathan, A.L., 2007. Regional hydrogeochemical study of groundwater arsenic contamination along transects from the Himalayan alluvial deposits to the Indian shield, Central Gangetic Basin, India. Geological Society of America, Abstracts with Programs, vol. 39, no. 6, p. 519.
- Bhattacharya, P., **Mukherjee, A.**, Shi, F., Xie, Z.M., Mukherjee, A.B., Sracek, O., Zhu, Y., Bundschuh, J., Jacks, G., 2007. High arsenic in alluvial of aquifers in varied climatic regime: hydrogeochemical comparison between Huhhot basin, Inner Mongolia, PR China and Bengal basin, India and Bangladesh. Geological Society of America, Abstracts with Programs, vol. 39, no. 6, p. 518.
- Scanlon, B.R., Nicot, J.P., Reedy, R., Kurtzman, D., **Mukherjee, A.**, 2007. Naturally occurring arsenic in a semi-arid oxidizing system, Southern High Plains Aquifer, USA. Geological Society of America, Abstracts with Programs, vol. 39, no. 6, p. 518.
- Chatterjee, D., Mukherjee-Goswami, A., Nath, B., Jana, J., Sahu, S.J., Chakraborty, S., Sarkar, M.J., Jacks, G., Bhattacharya, P., **Mukherjee, A.**, 2007. Arsenic in shallow and deep aquifers of Bengal delta plain. A field scale study in West Bengal, India. Geological Society of America, Abstracts with Programs, vol. 39, no. 6, p. 519.
- Mukherjee, A.**, and Fryar, A.E., 2006. Arsenic mobilization and retention caused by partial redox equilibrium in deeper groundwater of the western Bengal basin, West Bengal, India. Geological Society of America, Abstracts with Programs, vol. 38, no. 7, p. 242.
- Mukherjee, A.**, Von Brömssen, M, Jacks, G, Ahmed, K.M., Fryar, A.E., Hasan, M.A., Bhattacharya, P., 2006. Hydrochemical contrast between two arsenic affected areas near the eastern and western margins of Bengal basin: some preliminary results. Geological Society of America, Abstracts with Programs, vol. 38, no. 7, p. 180.
- Mukherjee, A.**, and Fryar, A.E., 2005. A composite approach to characterize the deeper aquifer of the arsenic contaminated western Bengal basin, India. Geological Society of America, Abstracts with Programs, vol. 37, no. 7, p. 170.

- Mukherjee, A.**, and Fryar, A.E., 2005. Status of arsenic contamination and hydrogeochemistry of deeper groundwater in eastern part of River Bhagirathi, West Bengal, India. In Proceedings of the National Conference on Arsenic Pollution in West Bengal, Srikrishna College, Bagula, West Bengal, India.
- Mukherjee, A.**, and Fryar, A.E., 2005. Arsenic in deeper groundwater of the western Bengal basin, India: a contradiction of conventional belief. In Proceedings of the Kentucky Water Resources Annual Symposium, Kentucky Water Resources Research Institute, 29-30.
- Mukherjee, A.**, and Fryar, A.E., 2005. Understanding the regional scale groundwater flow and chemistry in the arsenic affected western Bengal basin, India. In Proceedings, 92nd Session, Indian Science Congress. Earth System Sciences, Indian Science Congress Association.
- Ghosh, D., Deb, A., Patra, K.K., Sengupta, R., **Mukherjee, A.**, and Fryar, A.E., 2005. Double health risk in arsenic contaminated drinking water—evidence of enhanced alpha radioactivity: Geological Society of America Abstracts with Programs, v. 37, no. 7, p. 170.
- Mukherjee, A.**, and Fryar, A.E., 2004. Regional-scale hydrostratigraphy and groundwater chemistry in the western Bengal basin, India. Geological Society of America Abstracts with Programs, vol. 36, no. 5, p. 566.
- Mukherjee, A.**, and Fryar, A.E., 2004. Trends in arsenic and other solutes in deep groundwater along a topographic gradient within the western Bengal basin, India. In Proceedings of the Kentucky Water Resources Annual Symposium, Kentucky Water Resources Research Institute, 9-10.
- Mukherjee, A.**, Fryar, A.E., and Chakrabarti, A., 2004. Study on spatial distribution of arsenic in Bengal groundwater as a function of regional groundwater flow and palaeo-geomorphology: A curtain raiser. In Proceedings, 91st Session, Indian Science Congress. Earth System Sciences, Indian Science Congress Association.
- Mukherjee, A.**, 2003. An overview of probable mechanism of arsenic mobilization in Bengal basin groundwater. In Proceedings, 90th Session, Indian Science Congress. Earth System Sciences, Indian Science Congress Association.
- Mukherjee, A.**, and Fryar, A.E., 2003. Evaluating natural attenuation of contaminants along a first order coastal plain stream. Geological Society of America Abstracts with Programs, vol. 35, no. 6, p. 375.
- Mukherjee, A.** and Fryar, A.E., 2003. Identification of natural attenuation of trichloroethene and technetium along Little Bayou Creek, Kentucky, by tracer tests. Geological Society of America Abstracts with Programs, vol. 35, no. 1, p. 73.
- Mukherjee, A.**, and Fryar, A.E., 2003. Natural attenuation of trichloroethene and technetium along Little Bayou Creek, Kentucky by tracer tests. In Proceedings of the Kentucky Water Resources Annual Symposium, Kentucky Water Resources Research Institute.
- Mukherjee, A.**, 2002. Hydrogeological study on causes and effects and remediation of arsenic contamination of Bengal basin ground water. In Proceedings, 89th Session, Indian Science Congress. Earth System Sciences, Indian Science Congress Association.
- Ghosh, A.R., and **Mukherjee, A.**, 2002. Arsenic contamination and human health impacts in Burdwan district, West Bengal, India. Geological Society of America Abstracts with Programs, vol. 34, no. 2, p. 107.

Mukherjee, A., 2001. Assessment of causal factors and suggested remedial measures for the landslides of the west slope of Kalimpong hills. In Proceedings, 88th Session, Indian Science Congress, Earth System Sciences.

Dissertations and Theses

Mukherjee, A., 2006. Deeper groundwater chemistry and flow in the arsenic affected western Bengal basin, West Bengal, India. Ph.D. dissertation, University of Kentucky, Lexington, 248 p. <http://lib.uky.edu/ETD/ukygeol2006d00469/abmdissertation.pdf>

Mukherjee, A., 2003. Identification of natural attenuation of trichloroethene and technetium-99 along Little Bayou Creek, McCracken County, Kentucky. M.S. thesis, University of Kentucky, Lexington, 177 p.

<http://lib.uky.edu/ETD/ukygeol2003t00080/abmthesis.pdf>

Mukherjee, A., 2001. Geotechnical study of landslides in and around the approach road to Kalimpong, Darjeeling district, West Bengal. M.Sc. thesis, University of Calcutta, Kolkata, 126 p.

Popular Science Articles

Mukherjee, A., 1999. Triggering the ages of ice. Breakthrough, vol. 8, no. 2.

Mukherjee, A., 1995. March toward extinction. Scan, vol. 8.

Invited Lectures

- International Association of Hydrogeologists-Canadian National Chapter, Calgary and Edmonton, Canada, January to March 2009: Hydrogeologic investigation of arsenic contamination of deeper groundwater in Bengal basin, India.
- Alberta Geological Survey, March 2009: Study of natural attenuation of VOC and radiogenic contamination by tracer tests.
- Lecture series in India and Bangladesh (November 2006 to November 2007): Department of Geology, University of Calcutta, November 2006, Department of Environmental Science, A.N. College, Patna, and Department of Geology and Geophysics, Indian Institute of Technology, Kharagpur, Department of Geology, University of Dhaka, Bangladesh, November, 2007: Arsenic contamination of deeper groundwater of West Bengal.
- Bureau of Economic Geology, University of Texas at Austin, Austin, USA, Friday Seminar Series, October, 2006: Groundwater contamination of arsenic in India.
- Hydrogeology brown-bag lecture series, Department of Geological Sciences, University of Texas at Austin, Austin, USA, September 2006: Is deeper groundwater of the arsenic affected western Bengal basin a safe drinking water alternative?—a contradiction for current hypothesis.
- School of Chemistry, Physics and Earth Sciences, Flinders University, Adelaide, Australia, May 2006: Arsenic contamination of western Bengal basin.
- Rast-Holbrook Lecture Series, Department of Earth and Environmental Sciences, University of Kentucky, Lexington, USA, February 2006: Hydrologic characterization of the arsenic contaminated western Bengal basin, India.
- Kentucky Geological Survey, Lexington, USA, November 2004: Regional Quaternary hydrostratigraphy, groundwater flow, hydrochemistry and arsenic contamination of the Indian part of the Bengal basin: interim results.

- Arsenic Core Committee, Government of West Bengal, Kolkata, India, October 2004: Study of hydrogeochemical evolution of groundwater and fate of arsenic along regional flow path in the western Bengal basin, India.
- Indian Science Congress Association, Young Scientist Award, New Delhi, India, January 2001: Assessment of causal factors and suggested remedial measures for the landslides of the west slope of Kalimpong hills.

Extracurricular Activities

- Chairman, University of Kentucky Graduate and Family Housing Resident Council, 2005-2006
- Vice-Chairman, University of Kentucky Graduate and Family Housing Resident Council, 2004-2005
- Committee member, Student Activity Board, University of Kentucky, 2002-2003
- Publicity Secretary, Jubamaitry (a social organization), Calcutta, India, 1994-2001
- Member, Indian Kyo-Kushin Karate Association, 1997-2001