

Curriculum Vitae

Shuhab D. Khan
Department of Geosciences
University of Houston
Houston, TX. 77204-5007

Tel: 713-743-3411
Fax: 713-748-7906
Email: sdkhan@uh.edu
Web page: www.uh.edu/~sdkhan

Education

- **Doctor of Philosophy**, Geosciences, University of Texas, Dallas, 2001
- **Master of Philosophy**, Geology, University of Peshawar, Pakistan, 1995
- **Master of Science**, Geology, University of Peshawar, Pakistan, 1991
- **Bachelor of Science (Hons.)**, Geology, University of Peshawar, Pakistan, 1990
- **GIS Graduate Certification**, University of Texas, Dallas, 1999

Appointments

- **Assistant Professor**, Dept. of Geosciences, Univ. of Houston, 08/2003-present
- **Assistant Professor**, Idaho State University, 08/2002 – 07/2003
- **Assistant Professor**, Roosevelt University, Chicago, 08/2001-07/2002
- **Visiting Scientist**, Argonne National Laboratory, Chicago, 08/2001–08/2002
- **GIS Analyst**, GIS/RF Engineering Group, Metricom Inc. Plano, 8/2000-7/2001
- **Industrial Research Associate**, City of Garland., TX Summer 2000
- **Teaching Assistant**, Department. of Geosciences, Univ. of Texas, Dallas, 1996-2000
- **Lecturer**, Department of Geology, University of Peshawar, Pakistan, 1991-1996

Graduate Students Supervision/ Postdoctoral Scholars Sponsor

Dr. Khalid Mahmood, Fulbright Scholar (09/2005-12/2005)

Topic, Remote sensing and geochemical studies of Muslim Bagh ophiolite complex, Pakistan

Dr. Noor Jehan, funded by Higher education Commission of Pakistan (02/2008-11/2008)

Topic: GIS-based environmental modeling of talc hazards and risks in NWFP, Pakistan

Dr. Irshad Ahmad, Fulbright Scholar, (05/2008-02/2009)

Topic: Structural analysis of the Indus Suture Zone and Indian Plate rocks from Swat and Peshawar basin, northern Pakistan

Ph.D. Student Advised

Dr. Richard Engelkemeir (Geology). Evaluating Houston area neotectonics using GIS and remote sensing techniques, graduated May 2008. Currently at Schlumberger Inc., Houston.

Current Ph.D. Students

1. Lize Chen (Geology). Application of remote sensing for neotectonic studies in northern Pakistan.

2. Damayanti Mukherjee (Geology). An integrated shallow reservoir analog study in Central Texas.
3. Yingqian Xiong (Geology). Emplacement of Bela and Muslim Bagh Ophiolites and timing of India-Asia Collision in Western Pakistan.
4. Aziz Ozyavas (Geology). Application of radar altimetry and multi-temporal satellite imageries to confirm the climatic changes effecting water level of Caspian Sea.
5. Ana Petrovic (Geology). Remote detection and geochemical studies for finding hydrocarbon-induced alterations in Lisbon Valley, Utah, and Garza oil field, Texas.
6. Sergio Sarmiento (Geology). Sergio

Master's Students Advised

1. Jaime Fernandez (Geophysics). Identifying subsurface stratigraphy with AIRSAR and GPR in Craters of the Moon National Monument, Idaho, graduated May 2006. Currently at GX Technologies, Houston.
2. Sarah Jacobson (Geology). Identifying surface alterations caused by hydrocarbon microseepages using hyperspectral remote sensing techniques in the Patrick Draw area of southwest Wyoming, graduated May 2006. Currently at ExxonMobil Inc., Houston.
3. Yardenia Martinez (Geology). Mapping Geology Using Remote Sensing Techniques and Evaluating Topographic Correction Methods for Rugged Terrains: Case Study, Salmon River Mountains, east-central Idaho, graduated May 2006. Currently at KMS Technologies, Houston.
4. Ana Petrovic (Geology). Remote Detection and Geochemical Studies for Finding Hydrocarbon-Induced Alterations in Lisbon Valley, Utah, graduated August, 2006. Currently continuing Ph.D. at UH.
5. Ron Mart (Geology). North American alkaline rock and carbonatite distribution and their relationship to rifts and suture zones: testing the Wilson cycle mode, graduated May 2007. Currently at Shell Inc. Houston.
6. Jana Gray (Geology). Establishing the temporal and compositional relationships among lava flows of the Craters of the Moon National Monument, Idaho through inferences from image spectroscopy and hyperspectral imaging, graduated Dec. 2007. Currently GX Technologies.

Current Master's Student

Cecilia Ramirez (Geophysics). Study of active surface faults in Fort Bend County, expected graduation May 2009.

Publications (*Indicates Khan's student co-author)

- 2009 **Khan, S. D.**, Walker, D. J., Hall, S., Burke, K., Shah, M. T., and Stockli, L. Did Kohistan-Ladakh island arc collide first with India? Geological Society of America Bulletin, 121 (3/4), 366-384.
- 2008 Burke, K., Khan, S. D., *Mart, R. Grenville province and Montereian carbonatite and nepheline syenite distribution related to rifting, collision and plum passage. *Geology*, 36(12), 983-986.
- 2008 *Ozyavas, A., **Khan, S. D.** Assessment of recent short-term water level fluctuations in Caspian Sea using Topex/Poseidon. *IEEE Geoscience and Remote Sensing Letters*, 5(4), 720-724.
- 2008 *Petrovic, A., **Khan, S.D.**, Chafetz, H. Remote detection and geochemical studies for finding hydrocarbon-induced alterations in Lisbon Valley, Utah. *Journal of Marine and Petroleum Geology*, 25, 696-705.
- 2008 **Khan, S. D.**, Mahmood, K. The application of remote sensing techniques to the study of ophiolites, *Earth-Science Reviews*, 89, 135-143.
- 2008 *Engelkemeir R., and **Khan S. D.** LiDAR Mapping of Faults in Houston, Texas, USA. *Geosphere*, 4(1), 170-182.
- 2008 **Khan, S. D.**, *Jacobson, S. Remote Sensing and Geochemistry for Detecting Hydrocarbon Microseepages. *Geological Society of America Bulletin*, 120(1-2), 96-105.
- 2007 **Khan, S.D.**, Heggy, E., *Fernandez, J. Mapping exposed and buried lava flows using synthetic aperture radar and ground-penetrating radar in Craters of the Moon lava field. *Geophysics*, 72(6), 161-174.
- 2007 **Khan. S. D.**, Mahmood, K., Casey, J. Mapping of Muslim Bagh Ophiolite complex (Pakistan) using remote sensing and field data. *Journal of Asian Earth Sciences*, 30, 333-343.
- 2007 *Engelkemeir R., and **Khan S. D.** Near Surface Geophysical Studies of Houston Faults. *The Leading Edge*, 26 (8), 1004-1008.
- 2006 **Khan, S. D.** Flower, M. F. J., Sultan, M. I. Sandvol. E. Introduction to TETHYS- An Interdisciplinary GIS Database for Studying Continental Collisions. *Journal of Asian Earth Sciences*, 26(6), 613-625.
- 2006 **Khan, S. D.**, Glenn, N. New Strike Slip Faults and Litho-Units Mapped in Chitral (N. Pakistan) Using Field and ASTER Data Yield Regionally Significant Results. *International Journal of Remote Sensing*, 27(2), 4495-4512.

- 2006 Burke. K. and **Khan, S. D.**, A Geoinformatics System for Global Nepheline Syenite and Carbonatite Distribution: Testing a Wilson Cycle Model. *Geosphere*, 2(1), 53-60.
- 2005 **Khan, S. D.** Urban Development and Flooding in Houston Texas, Inferences from Remote Sensing Data using Neural Network Technique. *Environmental Geology*. 47(8), 1120-1127.
- 2004 **Khan, S. D.**, Stern, R. J., Manton, W. I., Copeland, P., Kimura, J. I. Khan, M. A. Age, geochemical and Sr-Nd-Pb isotopic constraints for mantle source characteristics and petrogenesis of Teru Volcanic Formation, Northern Kohistan terrane, Pakistan. *Tectonophysics*, 393, 263-280.
- 2003 Shah, M.T. and **(Khan) Danishwar, S.** Potential fluoride pollution and its source of contamination in the drinking water of Naranji area, N.W.F.P., Pakistan. *Environmental Geochemistry and Health*, 25 (4), 475-481.
- 2003 Sultan, M., Gheith, H., Sturchio, N. C., El Alfy, Z., **(Khan) Danishwar, S.**, Origin and recharge rates of alluvial ground waters, Eastern Desert, Egypt. In, *Proceedings of the International Conference on Water Resources Management in arid regions (WaRMAR)* edited by Sherif, Singh and Al-Rashed. *Hydrology and Water Resources Swets & Zeitlinger B. V., Lisse, The Netherlands*, 5, 121-134.
- 2002 Rubin, D., Davila, N., **Khan, S.**, and Tzoumis, K., EPA Region Five's Planning Process for Determining a Potential Environmental Justice Community. *Projections: The MIT Journal of Planning*, 3(1), 172-189.
- 2001 **(Khan) Danishwar, S.** Stern, R. J., Khan, M.A., Field Relations and Structural Constraints on the Teru Volcanic Formation, northern Kohistan terrane, Pakistani Himalayas. *Journal of Asian Earth Sciences*, 9(5), 683-695.
- 1997 Stern, R. J., Yamazaki, T., **(Khan) Danishwar, S** & Sun, H., Back-Arc Basin Lower Crust and Upper Mantle in the Northern Mariana Trough studied with Shinkai 6500. *JAMSTECH Jour. of Deep Sea Research*, 13, 47-61.
- 1995 **Khan-Danishwar, S.**, Shah, M. T., Leghari, A., Status of drinking water quality in western part of the Thar Desert, Sindh, Pakistan. *Geol. Bull. Univ. of Peshawar*, 28, 39-47.
- 1995 **(Khan) Danishwar, S.**, Majid, M., Shah, M. T., Haq, N., Abundance of fluoride and its sources in drinking water of Khashki and surrounding area, district Nowshera, N.W.F.P., Pakistan. *Geol. Bul. Univ. of Peshawar*, 28, 31-37.
- 1995 **(Khan) Danishwar, S.**, Majid, M., & Shah, M. T., Mineralogy and geochemistry of lacustrine deposits of Khashki area, N.W.F.P., *Pakistan Journal of Science & Technology*, 19, 31-39.
- 1995 **(Khan) Danishwar, S.**, Shah, M.T., & *Baig, Z., M. Sources of high sulfate in drinking

- water of Gadoon, Amazai area, N.W.F.P., Pakistan. Geol. Hazards: Predication, mitigation and control: Proceedings of the National Symposium on Environmental Geology, 167-172.
- 1995 *Ahmad, A., (Khan) Danishwar, S., Ahmad, I., & Ahmad, Z. Environmental impact Assessment of coal mining in Jhanger valley, Distt. Chakwal, Punjab, Pakistan. Geological Hazards: Predication, mitigation and control: Proceedings of the National Symposium on Environmental Geology, 173-182.
- 1994 **(Khan) Danishwar, S.**, Majid, M., Shah, M. T., & Haq, N., Fluoride abundance in drinking water and related health hazards: A case study from Kheski area, Nowshera district, N.W.F.P., Pakistan. Geological Bulletin, University of Peshawar, 27, 113-116.
- 1992 Majid, M., **(Khan) Danishwar, S.**, Hameedullah, S., Petrographic and chemical variations in the rift-related basic dikes of the Malka area (Lower Swat), N.W.F.P., Pakistan. Geological Bulletin, University of Peshawar, 24, 1-23.