

Syed Amer Mahmood

PhD (REMOTE SENSING/GIS)

ACADEMIC CAREER

Since Feb. 15, 2012 to date	Assistant Professor at Department of Space science, University of the Punjab, Lahore, Pakistan.
Since July, 1997-2012	Lecturer at Department of Space science, University of the Punjab, Lahore, Pakistan
1993 - 1997	(34 months) Coordinator, Digital Radio Paging limited, Lahore-Pakistan, responsible for the smooth operations of Paging division, Cable TV Network, and FM transmissions.
March 1993	M.Sc. "Space Sciences ", (rank: A/1st), Department of Space Sciences, University of the Punjab, Lahore, Pakistan
June 1989	B.Sc. "Space Sciences ", (rank: A/1st), Department of Space Sciences, University of the Punjab, Lahore, Pakistan

TEACHING ACTIVITIES

Since 1997 to date	Remote sensing and Image processing for Ph. D, M. Phill, master level students Atmospheric, Environmental and meteorological sciences Environmental Modeling in Geosciences Helping research students in RS/GIS applications
2006-2008	Teaching and guiding trainee students from different countries in Remote Sensing and Surface deformation at TU Bergakademie Freiberg

FIELD WORK/EXCURSIONS

Nov. 2006	(6 weeks) Field work in Hindukush-Pamirs (Remote Sensing, Neotectonics geomorphology)
Oct. 2007	(4 weeks) Field Chitral Valley, Northern Pakistan (Streams and Faults)

SCIENTIFIC RESPONSIBILITIES

- To deliver lectures to M. Phil., M.Sc and B.Sc. student at department of Space science university of the Punjab, Lahore, Pakistan in the field of remote sensing, meteorology and atmospheric sciences
- To help the students in their research work and practical work in the Lab.
- Facilitate and provide expertise in collection, extraction, assessment and management of DEM based topographical databases regarding surface deformation and natural disasters
- Coordinate with the academic institutions in Pakistan to carry out project activities, organize workshops and training programmes
- Assist in developing training materials on RS/GIS and conducting training courses.
- Provide support to active deformation studies using RS/GIS techniques

- Research supervision of Master level students in the field of Remote sensing,

SCIENTIFIC CRUISES

- Matlab Programming, short courses, held in Feb-2007 at **Technische Universität Bergakademie Freiberg, Germany.**
- Remote Sensing, Two week Intensive Short course, held from March, 19-30-2007, at **Technische Universität Bergakademie Freiberg, Germany.**
- Short course on “The Statistical Analysis of Compositional data” held from June 12-13, 2007, organized by IAMG Student chapter, at **Technische Universität Bergakademie Freiberg, Institut für Geologie, Freiberg, Germany.**
- Short Course on Fission Track Analysis, held on September 25-26, at **CNR-IGG, Pisa, Italy.**
- Workshop on IGCP project 543, Low-temperature thermochronology and its applications: world-wide transfer of knowledge and inter-laboratory calibration, organized by, **IUGS, UNESCO and THERMOCHRONE, held on 27-28, Pisa, Italy.**
- Remote Sensing and IDL, Two week Intensive Short course, held from March, 25-3-2008, at **Technische Universität Bergakademie Freiberg, Germany**
- An Intensive (40) days training course on “Digital Image Processing and GIS” organized by Prof. Dr. Waqar Ahmed (**From Charles Darwin University, Australia**) and GIS center, Punjab university college of information Technology, held at university of the Punjab, Lahore from Feb. 07, 2005 to March 15, 2005.
- A training course by (**UN/Pakistan-Sweden, SIDA**), in Remote sensing Education for Educators on “Natural environmental management and its Protection” held at **SUPARCO, Islamabad**, August 30 to September 04-2004.
- A training workshop on Environmental Management and Awareness in Pakistan, Vision-2000, organized by the Center for Integrated Mountain Research (CIMR), held at **Center for South Asian Studies, University of the Punjab, Lahore, (2000).**
- A training course on “Environmental Hydrology and Ground Water Contamination” held at Institute of Geology under **TOKTEN/UNDP Curtin University of Technology, Perth, Australia**, held at Punjab University Lahore.(Jan. 26 –Feb. 14, 1999).

LANGUAGE SKILLS

Urdu	Fluent (National Language)
Punjabi	Fluent (mother tongue)
English	Fluent (Official Language)
Hindi	Average
German	Very Basic

IT SKILLS

Operating systems
Windows 2007/XP, Mac OS X, LINUX
Applications and experience on diverse range of software for Remote sensing, Image Processing, geostatistics, Erosion Modeling [e.g. ArcGIS, ENVI, ER Mapper, Erdas Imagine, Global mapper, GMT (Generic Mapping Tools), Surfer, Matlab etc.

PERSONAL DETAILS

Date of birth	12.12.1968
Place of Birth	Lahore-Pakistan
Nationality	Pakistani

STUDENT SUPERVISION

1997	Shahid Rafique: Remote Sensing Technology and its Application to Urban Landuse/Landcover Studies – A Case Study Faisalabad. University of the Punjab, Lahore, Pakistan Iftekhhar Abbas: Urban Features Mapping and Area Estimation of Peshawar city Using Spot Imagery, University of the Punjab, Lahore, Pakistan.
1998	Mohammad Safder: Landuse/Landcover Classification of Karachi city Using Cloud free Panchromatic Digital SPOT Satellite Image. University of the Punjab, Lahore, Pakistan Muhammad Wakeel: Monitoring water Quality in Pollutional Loads Assesments in River Ravi along Lahore Periphery. University of the Punjab, Lahore, Pakistan Muhammad Akmal: Determination of Bacteriological Drinking Water Quality of Different Areas of Lahore City. University of the Punjab, Lahore, Pakistan Saeed Ahmed: Characterization and Wastewater Management of a Tannery along Shahdara Lahore. University of the Punjab, Lahore, Pakistan
2001	Sohail Ahmed: Monitoring aerosols in Punjab Province. University of the Punjab, Lahore, Pakistan
2002	Saira Bano: Interpretation of Monochromatic and Polychromatic images of GOES satellite. University of the Punjab, Lahore, Pakistan
2003	khola Naseer: Detection of Thunderstorm and Precipitation estimation using Doppler Radar. University of the Punjab, Lahore, Pakistan
2004	Urooj Saeed: Comparison of Results of Land-cover using LANDSAT, ASTER & Quick Bird Satellite Data-Mangrove Mapping near Sandpit Karachi City. University of the Punjab, Lahore, Pakistan
2005	Aasia Bano: Flood Monitoring in Jehlum River Using Landsat data. University of the Punjab, Lahore, Pakistan.
2012	Mr. Jahanzeb Qureshi: M. Phil (continued).
2012	Mr. Amer Masood: M.Phil. (Continued).
2012	Ms. Maria Yameen: M.Phil. (Continued).
2012	Mr. Kashif Ph. D (Continued)
2012	Mr. Shaukat Ph.D (Continued).

International/National Journals/Conferences

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Remote Sensing Analysis of Quaternary Deofrmation using River Systems along Konar-Tirch Mir Fault System in Hindukush Region. In International Geoscience and Remote Sensing Symposium (IGARSS), July 2009, Cape Town, South Africa

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Remote Sensing Analysis of Quaternary Deformation in the Hindukush Region along Chitral-Yarkun River; River Profile Approach, IAG 2009-Australia.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Surface Deformation Analysis by Means of Fractal Dimension and Lacunarity Approaches, American Geophysical Union, AGU-Joint Assembly-Canada.

S. A. Mahmood and R. Gloaguen. Remote Sensing Analysis of Active Deformation Using River Networks In Remote Sensing and photogrammetry society, RSPSoc Annual Conference 2009, 8-11 September 2009, Leicester, UK. 2009.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Appraisal of neotectonics and geomorphic parameters using Landsat and Digital Elevation Model Data-examples from Pamir-Hindukush-Karakorum, Proceedings of the Remote sensing and photogrammetry society conference 2008 “ Measuring change in the earth system” held from 15-17 September 2008, Cornwall campus, Falmouth, University of Exeter, UK.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Remote sensing analysis of quaternary deformation in the hindukush-pamir region. In 33rd International Geological Congress 2008, Oslo, Norway, 2008.

S. A. Mahmood, and R. Gloaguen. Fractal behavior of a fold system in upper Indus basin (Pakistan). In 33rd International Geological Congress 2008, Oslo, Norway, 2008.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Remote sensing analysis of neotectonics in Pamir using dem: River profile approach. In International Geoscience and Remote Sensing Symposium (IGARSS), July 2008, Boston, USA, 2008.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Appraisal of neotectonics in pamir syntaxis: Inferences from remote sensing. In Canadian Geological Conference 2008, Quebec, Canada, 2008.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Remote sensing and fractal analysis of drainage network in the zeravshan and jagnob valleys, northern tajikistan. In 3èmes JTGA 2008 Troisièmes Journées Tunisiennes de Géologie Appliquée 21-23 Mars 2008, 2008.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Understanding active internal deformation in southeastern pamir using remote sensing and geophysical techniques. In 10th International Symposium on high mountain remote sensing cartography, Kathmandu, Nepal, 2008.

S. A. Mahmood, F. Shahzad, and R. Gloaguen. Statistical behaviour of earthquake occurrence in Pamir- Hindukush –Karakoram and region. In 4th International Conference on Statistical Sciences, University of Gujrat, Pakistan, 2008.

S. A. Mahmood, R. Gloaguen, and P. Lu. Analysis of regional uplift rate in tarbela seismic zone (northern Pakistan). In ICEST2007, Third International Conference on Environmental Science and Technology, American Academy of Sciences, August 6-9, 2007, Houston, USA., 2007

P. Lu, R. Gloaguen, and **S. A. Mahmood**. Monitoring surface deformation using remote sensing techniques in southeast tibet, geomonitoring in the energy and mineral resources industry using remote sensing methodologies. In 58. Berg- und Hüttenmännischer Tag - Freiburger Forschungsforum, Freiberg, Germany, June 2007., 2007.

S. A. Mahmood, F. Shahzad, R. Gloaguen, and P. Lu. Appraisal of surface deformation using remote sensing techniques- examples from postwar plateau- northern pakistan, geomonitoring in the energy and mineral resources industry using remote sensing methodologies. In 58. Berg- und Hüttenmännischer Tag - Freiburger Forschungsforum, Freiberg, June 2007., 2007.

S. A. Mahmood, R. Gloaguen, and F. Shahzad. Remote sensing analysis of recent active tectonics in pamir using dem and lansat data: Streams gradient approach. In proceedings of the 3rd International Conference on Emerging Technologies (ICET 2007), 2007.

S. A. Mahmood and R. Gloaguen. Remote sensing analysis of neotectonics development along pyanj river in pamirs. In IAMG'2007, August 26-31, 2007, Beijing, China., 2007.

S. A. Mahmood, R. Gloaguen, and F. Shahzad. Remote sensing analysis of darvaz fault zone based on geomorphic indices and active tectonics using digital elevation models in pamir syntaxis. In 3rd International Conference on Emerging Technologies (ICET 2007), 2007.

S. A. Mahmood, Amjed S. Almas, and I. Abbas. Urban Features Mapping and Area Estimation Using Spot Imagery-A Case Study Peshawar", presented in 2nd PSGIS International Conference titled "GIS in New Millennium" organized by Pakistan Society of Geographic Information Systems in collaboration with Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), Health Services Academy and GTZ(German aid to Pakistan), held during April 05-07, 2000 at AEROSPACE Institute Islamabad, Pakistan.

Amjed S. Almas and **S. A. Mahmood** "Appraisal of drainage impact In the Left Bank Outfall Drainage (LBOD) Using IRS-1C Imagery", Presented at 14th International Conference on applied Geological Remote Sensing, Las Vegas, Nevada-USA, 6-8 November-2000

S. A. Mahmood "Landuse/Landcover Classification of Karachi city Using Cloud free Panchromatic Digital SPOT Satellite Image" Published at International conference on GIS-2001 at Vancouver, British Columbia, Canada.

S. A. Mahmood "Monitoring Aerosol Concentrations In Pakistan Leading to Reduction in Visibility and Causing Aviations Hazards" Published at International conference on GIS-2001 at Vancouver, British Columbia, Canada.

Muhammad Azam Khan, Amjed, S Alams, Mohsin Jamil Butt and **S. A. Mahmood**. "Exploitation of Geo-spatial techniques for the Study of Snow and run-off Parameters" Geoinformatics 2004, Proc. 12th Int. Conf. on Geoinformatics – Geospatial Information Research: Bridging the Pacific and Atlantic, University of Gävle, Sweden, 7-9 June 2004.

Urooj Saeed, Salman Ashraf, Asim Daud, **S. A. Mahmood**, "Estimation and Quantification of Mangrove Forest Extent by Using Different Spatial Resolution Satellite Data for the Sandpit of Karachi Coast" presented and published at First International Conference on Environmental Sustainable Development held at Comsat Institute of Information Technology, Abbotabad-2005 Pakistan.

Mahmood, S. A., Liesenberg, V., Gloaguen, R., and Rahnama, M.,(2011). "Remote sensing analysis of active deformation in Hindu Kush using river profiles and polynomial trend surfaces". (In revision): Geomorphology

Mahmood, S. A., and Gloaguen, R. (2011). Analysing spatial autocorrelation for hypsometric integral to discriminate neotectonics and lithologies using DEMs. *GIScience & Remote Sensing*, 2011, 48, No. 4, p. 1–XXX. DOI: 10.2747/1548-1603.48.4.1

Mahmood, S. A., and Gloaguen, R. (2011). Fractal Measures of Drainage Network to Investigate Surface Deformation from Remote Sensing Data: A Paradigm from Hindukush (NE-Afghanistan). *J. Mt. Sci.* (2011) 8: 641–654, DOI: 10.1007/s11629-011-1030-1.

S. A. Mahmood, Jahanzeb Qureshi and Shaukat Ali Awan. "Detection of Intense Meteorological Systems and Their Movement through Satellite Pictures". Published in *Journal of Research (Science)* , Bahauddin Zakriya University, Multan, Pakistan, Vol.15.No.4, December 2004, pp. 351-359., ISSN 1021-1012.

S. A. Mahmood, Hafiz M. Rafique, S. Rafiqie "Appraisal of Landuse/Land Cover of Faisalabad City Using Spot Digital Imagery"Published in *Journal of Science International, Sci.int.(Lahore)*, 17(2)-117-123,2005, ISSN 11013-5316;CODEN: SINTE 8.

S. A. Mahmood, Shaukat Ali Awan, Jahanzeb Qureshi. "Monitoring bifurcation of Monsoon System through Satellite Imagery and Synoptic Data." Published in *Journal of Science International, Lahore-Pakistan*.