Muhammad Nawaz

Coordinator/Assistant Professor
GIS Centre, Department of Geography, University of the Punjab, Lahore, Pakistan.
Telephone: +92 (0) 42 5860659, 5271878 , 0333 - 4351248

E-Mail: nawaz@gis.pu.edu.pk, gets@wol.net.pk

Education

M.Sc Geoinformatics
ITC, Enschede, The Netherlands.

M.Sc Geography
University of the Punjab Lahore, Pakistan.

Certification

Environmental Impacts of Geological Hazards
Postgraduate Center for Earth Sciences, University of the Punjab. 14th May –13th June 2003.

Hazardous Waste Management
Atomic Energy Mineral Centre Lahore, University of the Punjab & Postgraduate Center for Earth Sciences, University of the Punjab 3rd –7th February, 2003.

Quaternary Geology of the Punjab Plains
Institute of the Geology, University of the Punjab. 20th -22nd June 2003.

Work/Teaching Experience (15 Years)

1. Serving as **Assistant Professor**, Department of Geography, University of the Punjab, Lahore, Pakistan**,** since June 26, 1999.
2. Serving as **Coordinator**, GIS Centre, Department of Geography, University of the Punjab, Lahore since September 25, 2001.
3. Served as **GIS Consultant**, International Water Management Institute (IWMI-Pakistan from July 19, 1999 to July 26, 1999.
4. Served as **Teaching Assistant** in Decision-Support Methodology for the Management of Spatial Conflicts, International Institute of Aerospace Survey and Earth Sciences (ITC), Enchede, Netherlands from July 5, 1998 to April 22, 1999.
5. Served as in **Lecturer** Geography, Department of Geography, University of the Punjab, Lahore, Pakistan**,** from April 7, 1993 to June 26, 1999.
6. Served as **Subject Specialist** in Geography, Education Department, Ministry of Education, Government of the Punjab from August 27, 1990 to April 7, 1993.

Research Papers

1. **Nawaz, M.**, Sattar, F. and Ahmad, D. (2004), “Location Based Services to Support Mobile Users” International GIS Conference “ Arab Map 2004” Information Technology Institute (ITI), Cairo Egypt, September 6-7,pp
2. **Nawaz, M.** and Sattar, F. (2004), "Intelligent Software Agent Based Information Architecture for the Development of SDI" The 10th International Conference on Information Systems Analysis and Synthesis: ISAS 2004 and International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2004, July 21-25, Orlando, Florida, USA.
3. Sattar, F. and **Nawaz, M.** (2004)"Intelligent Software Agents: A Promising Future Information Technology" The 10th International Conference on Information Systems Analysis and Synthesis: ISAS 2004 and International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2004, July 21-25, Orlando, Florida, USA.
4. Sattar, F. **Nawaz, M.** and Tahir, A. (2004), “Development of Online Land Information System (LIS) for Land Marketing: Case of Jublee Town Lahore” International Conference GISMAP 2004: "Protecting and Strengthening Communities in the Pacific" June 7 - 9**,**Waikiki Beach Marriott, 2552 Kalakaua Avenue, Honolulu, Hawaii 96815., USA.
5. **Nawaz, M.** and Sattar, F. (2004), “ Air Pollution Patterns Identification of Lahore City Using GIS” International Conference on Environmentally Sustainable Development, March 26-27, Kinnaired College for Women Lahore, Pakistan.
6. **Nawaz, M.** and Sattar, F. (2003), “A Note on Visualization of Pollution Pattern using GIS: Case of Lahore City” Pakistan Journal of Environmental Science Vol.3, No1. pp 68-75
7. **Nawaz, M.** and Sattar, F. (2003), “Dissemination of GIS for Sustainable Mountain Development in Hidu Kush-Himalayan Region”. Pakistan Journal of Environmental Science Vol.2, No.2, pp50 –54.
8. **Nawaz, M.** and Sattar, F.(2002), "Development of GIS as Collaborative Spatial-Decision Making Tools" Pakistan Journal of Geography, Vol. XI & XII, Nos. 1&2, pp 73-82.
9. **Nawaz, M.** and Sattar, F. (2001), "Beyond the Metaphor of Map" Third International GIS Conference on” Geographic Information Technology for Environmental Governance, Urban Management and Rural Development" Barki, Lahore, March 26-28.
10. **Nawaz, M.** and Sattar, F. (2001), "GIS-Based Information Infrastructure for Sustainable Tourism Development for Pakistan" Third International GIS Conference on” Geographic Information Technology for Environmental Governance, Urban Management and Rural Development" Barki, Lahore, March 26-28, 2001.
11. **Nawaz, M.** and Sattar, F. (2001), "Agent Oriented Spatial Data Infrastructure: Proposed Framework to Support Sustainable Land Use". International Conference on " Sustainable Management of Natural Resources" Department of Geography, Urban and Regional Planning, University of Peshawar, Pakistan, December 1-6, 1999.
12. Sattar, F. and **Nawaz, M.** (2000), “Agent Based Information Architecture for the Development of Spatial Data Infrastructure”. Second International Conference on “GIS in the New Millennium”. SUPARCO, Islamabad, Pakistan. April 5-7.

13. **Nawaz, M.** and Sattar, F. (2000), “GIS as an Effective Platform for Collaborative Spatial Decision Making”. Second International Conference on “GIS in the New Millennium”. SUPARCO, Islamabad, Pakistan, April 5-7.
14. Sattar, F. and **Nawaz, M.** (2000), “Intelligent Software Agents: a new dimension for the new millennium” I.T. Conference on " Information Technology - The Key to Development in 21st Century", Pakistan Computer Bureau I.T & Telecom Division, Islamabad, Pakistan, November 13-14.
15. **Nawaz, M.** and Sattar, F. (1999), "Collaborative Spatial Decision-Making and Conflict Resolution to Support Sustainable Land Use". International Conference on Sustainable Management of Natural Resources" Department of Geography, Urban and Regional Planning, University of Peshawar, Pakistan, December 1-6.
16. Sattar, F. and **Nawaz, M.** (1999), “Agent Oriented Spatial Data Infrastructure: Proposed Framework to Support Sustainable Land Use” International Conference on Sustainable Management of Natural Resources" Department of Geography, Urban and Regional Planning, University of Peshawar, Pakistan, December 1-6.

GIS Training Courses and Workshop Conducted

1. Served as Resource Person for short Training Course “Introduction to GIS” organized by International Water Management Institute (IWMI), Thokar Niaz Baig, Lahore. June 1999.
2. Served as Resource Person for Training course “Application of GIS for Hydropower Engineering” organized by Center of Excellence Water Resource Engineering, University of Engineering and Technology, Lahore, 2001.
3. Served as Resource Person for Short Training Course “Principles of GIS” organized by Institute of Environmental Sciences (IES), Punjab University, New Campus, Lahore. November 2001.
4. Served as Resource Person for Workshop on GIS organized by Pakistan Society of Geographic Information System (PSGIS) 2000.
5. Served as Resources Person for short training courses “GIS: Concept and techniques” organized by GETS, 1999-2001.
6. Served as Resource Person for short training courses on “Remote Sensing and GIS” GIS Centre, Punjab University College of Information Technology (PUCIT), February 7 – March 12, 2005.

Booklets on Geographic Information System

1. **Nawaz, M.** and Sattar, F. (1999), “ Geographic Information Systems: Basic Concepts ”, GETS Publications, Lahore.
2. **Nawaz, M.** and Sattar, F. (2000), “Application of GIS in Geographic Decision-Making”, GETS Publications, Lahore.
3. **Nawaz, M.** and Sattar, F. (2001), “ Geographic Analysis”, GETS Publications, Lahore.
4. Sattar, F., and **Nawaz, M.** (2002), “ GIS Hands on Practice: Geographic Analysis”, GETS Publications, Lahore.
5. Sattar, F., and **Nawaz, M.** (2003), “ GIS Hands on Practice: Spatial Data Visualization”, GETS Publications, Lahore.

6. **Nawaz, M.** and Sattar, F. (2004), "Fundamentals of Multicriteria Evaluation and Decision-making" GETS Publications, Lahore.

Research Work

1. **Collaborative Spatial Decision-Making in Resolving the Land Use Conflicts (1998),** M.Sc Thesis, International Institute of Aerospace Survey and Earth Sciences (ITC), Enschede, Netherlands.

2. **Spatial Decision Support System: Components and Functions,** Research Project, International Institute of Aerospace Survey and Earth Sciences (ITC), Enchede, Netherlands, October 1998.

3. **Concept of Collaborative Spatial Decision Support System in the Context of Land Use Planning,** Research Project, International Institute of Aerospace Survey and Earth Sciences (ITC), Enchede, Netherlands, December 1998.

4. **Spatial Dynamics of Crime (1989) ,** M.Sc Thesis, Department of Geography, University of the Punjab Lahore, Pakistan.

5. **Demographic Survey of Bhopatian [Kashmir] and Ali Raza Abad [Lahore](1989),** Comparative Demographic Analysis, M.Sc Research Project, Department of Geography, University of the Punjab Lahore, Pakistan.

Supervision of Research Work

1. Ahmad, D. (2004), " Development of Location Based Services for Mobile Users" M.Sc Thesis, GIS Centre, Department of Geography, University of the Punjab.
2. Zafar, S., B.(2004), "Spatial Analysis of Mountain Forest Cover in Pakistan" M.Sc Thesis, GIS Centre, Department of Geography, University of the Punjab.
3. Shezad, K. (2004)"Agricultural Development in Toba Takesingh District" M.Sc Thesis, Department of Geography, University of the Punjab.
4. Hamid, M. (2003), "Decision Support System for Water Resource Management" M.Sc Thesis, GIS Centre, Department of Geography, University of the Punjab..
5. Dar, U., G. (2003), "Identification of Air Pollution Pattern Using GIS Technique in Lahore City" M.Sc Thesis, GIS Centre, Department of Geography, University of the Punjab.
6. Kanwal, S. (2003), " Identification and Classification of Wetlands of Pakistan" M.Sc Thesis, Department of Geography, University of the Punjab.
7. Shaheen, K.(2002), " Spatial Distribution of ISP's in Pakistan" M.Sc Thesis, Department of Geography, University of the Punjab.
8. Shoaib, A. (2001), " Growth of Information Technology (IT) as Industrial Segment in Lahore" M.Sc Thesis, Department of Geography, University of the Punjab.
9. Amana, Z. (2001), " ISP's as Information Technology (IT) Growth Indicator: Case Study of Lahore" M.Sc Thesis, Department of Geography, University of the Punjab.
10. Sadaf, A. (2001), " Growth of Information Technology (IT) Institutes in Lahore" M.Sc Thesis, Department of Geography, University of the Punjab.
11. Qureshi, K. "Information Infrastructure for Sustainable Tourism Development: Case Study of Muree District, M.Sc Thesis, Department of Geography, University of the Punjab, 2000.

Experience with GIS/DSS/MCE/NSS Software Tools

1. DEFINITE (software for Multi-Criteria Evaluation)
2. GeoChoicePerspective (software for Collaborative Spatial Decision-Making).
3. INSPIRE (Web-Based Negotiation Support System)
4. ChoiceExplorer (Multi-Criteria Evaluation /GSDSS tool)
5. GorupFacilitator (Consensus Support System)
6. ILWIS
7. EARDAS Imagine
8. ARCINFO
9. ARCVIEW

Programming Experience

1. AML
2. Pascal
3. HTML
4. Avenue

National /International Organization Membership

1. Member, Higher Education Commission (HEC) Curriculum Revision Committee for Remote Sensing & GIS.
2. Member, National Advisory Board for Remote Sensing & GIS
3. Member, National GIS Task Force, Technology Resource Mobilization Unit (TReMU), Ministry of Science and Technology.
4. Member, Pakistan Society for Geographic Information System (PSGIS).
5. Alumni, International Institute of Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands.
6. Member, International Centre for Integrated Mountain Development (ICIMOD), Nepal.

References

Prof. Dr. Waqar Ahmad
Head of Remote Sensing and GIS Programme
Chales Darwin University, Darwin, Australia.
& Incharge GIS Centre, University of the Punjab.
Email: waqar@cdu.au, waqar@gis.pu.edu.pk
Tel: 111 –923 –923 Ext.36, 0300 – 8873808

Dr. Ali Sharifi
Associate Professor,
Decision Support System and Conflict Management
International Institute of Aerospace Survey and Earth Sciences (ITC), Netherlands.
Email: alisharifi@itc.nl
Tel: +31 (0)53 4874444