

RESEARCH MAP — ARJUMAND Z. ZAIDI

COMPLETED RESEARCH	FUTURE RESEARCH	
FUNDED PROJECTS		
<p>Topic: Indus River Flow Monitoring using Satellite Radar Altimetry Data and 2D Flood model PI: Arjumand Zaidi Co-PI: Sumaira Zafar Funding Agency: HEC (on-going)</p> <p>Topic: Indus River Water Level Monitoring in Sindh using Satellite Radar Altimetry PI (Academia): Arjumand Zaidi PI (Industry): Engineer Zarif Khero (SID) Co-PI: Dr. Badar Ghauri (IST) Funding Agency: USPCASW. Completed: 2019</p> <p>Topic: Sindh Water Balance PI: Arjumand Zaidi Co-PI: Bakhshal Khan Lashari Research Consultant: Mr. Nabeel Ali Khan Collaborator: Water Sector Improvement Project (WSIP). Completed: 2019</p> <p>Topic: Drought Management Decision Support System (DM-DSS) in Sindh using Remote Sensing Techniques. PI: Dr. Badar Ghauri, Institute of Space Technology (IST) Co-PI: Arjumand Zaidi Funding Agency: Pakistan Higher Education Commission (HEC). Completed: 2018</p> <p>Topic: Impact Assessment of Canal Rehabilitation Programs in Sindh using Geospatial Techniques. PI: Arjumand Zaidi Co-PI: Dr. Snan Ullah Shah (SUPARCO) Funding Agency: Pakistan HEC Completed: 2015</p>	<p>Topic: Seaweed mapping and stock assessment along Karachi Coast PI: Arjumand Zaidi Collaborators: Center of Excellence Marine Biology, Karachi University & Pakistan Fisherfolk Forum (PFF). Funding Agency: Small Grant Facilities, Mangrove for the Future (MFF), IUCN URL: https://www.mangrovesforthefuture.org/grants/small-grant-facilities/pakistan/assessment-of-stock-and-market-potential-of-consumable-seaweeds-in-on-and-very-near-shore-waters-along-karachi-coast/</p> <p>Topic: Vulnerability Assessment for Potential Glacial Lakes Outburst Floods (GLOFs) Events in Passu and Bagrot Valley, Pakistan Role: Mentor Students: Muhammad Danish Siddiqui and Zeenat Yasmeen Initiated/Funded By: ICIMOD under MyCOE / SERVIR Himalayas Fellowship Program</p>	<p>Topic: GLOF studies in the HKH region of Pakistan using Advanced Remote Sensing Data and Techniques. PI: Arjumand Zaidi Co-PI: Ms. Sumaira Zafar & Asmat Ullah Collaborators: IST and ICIMOD Funding Agency: IDRC-CRDI</p> <p>Topic: Climate-smart irrigation management to enhance Crop Water Productivity using Geospatial and IoT Solutions (CCWP-GIS) PI: Arjumand Zaidi Co-PI: Asmat Ullah Funding Agency: Sindh HEC (submitted)</p> <p>Topic: To develop improved floodplain maps for the Indus River Basin, considering future changes in the landuse/cover and weather parameters due to climate change</p> <p>Topic: Suitable sites for small run-of-the-river hydropower plants: An optimization approach</p> <p>Topic: Urban-induced changes to the Hydrology of Malir and Hub Basins: Problems and their Solutions</p> <p>Topic: Comparison of Crop Water Productivity in Sindh and Punjab (District Level Analysis) using temporal satellite-based ET products</p>
STUDENTS' THESES		
<p>Topic: Impact of Landuse/landcover Change on Streambed of Malir River Basin. Student: Ms. Sumaira Zafar (MS-IST) Supervisor: Arjumand Zaidi</p> <p>Topic: Potential of marginal land of the Thatta District for Jatropha cultivation using geospatial techniques. Student: Mr. Muhammad Arslan (MS-IST) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Saad Malik (IST)</p> <p>Topic: Seaweed mapping along Karachi Coast using GIS techniques. Student: Mr. Muhammad Danish Siddiqui (MS-IST) Supervisor: Arjumand Zaidi</p> <p>Topic: Hydrologic Modeling of Tarbela Catchment Student: Ms. Zeenat Yasmeen Supervisor: Arjumand Zaidi</p> <p>Topic: Suitable locations for run-of-the-river (RoR) hydropower plants along a stream using geospatial data and tools: A case study of the Kunhar River Student: Mr. Majid Khan Supervisor: Arjumand Zaidi</p> <p>Topic: Geospatial dengue risk mapping of the Lahore District: Case study of 2011 Student: Mr. Bilal Tariq Supervisor: Arjumand Zaidi</p>	<p>Topic: Agricultural water use optimization using the CropSyst model Student: Mr. Faris Bhatti (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Asmatullah</p> <p>Topic: Crop water stress detection using RS Student: Mr. Nabeel Ali Khan (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Asmatullah</p> <p>Topic: Performance evaluation of check dams in the Potohar region of Punjab Student: Ms. Vengus Panhwar (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Asmatullah</p> <p>Topic: Risk and Environmental Impact Assessment of GLOF Events in District Ghizer and Policy Implications Student: Mr. Imran Khan (MS) Supervisor: Dr. Asmat Ullah Co-Supervisor: Arjumand Zaidi</p> <p>Topic: Manchar Lake Measurements using Optical and Altimetry Remote Sensing Student: Ms. Ramsha Zafar (MS-IST) Supervisor: Mr. Saad ul Haq (IST) Co-Supervisor: Arjumand Zaidi</p>	<p>Topic: Monitoring of sea-level rise using gauge and altimetry data along the Karachi Coast Student: Talal Naseer (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Stefano Vignudelli</p> <p>Topic: Estimating the crop water productivity of major crops on the Rohri canal command area using remote sensing Student: Zenobia Talpur (MS) Supervisor: Arjumand Zaidi</p> <p>Topic: Watershed Modeling of Pishin Lora Basin of Balochistan Student: Ms. Rabia Bajoi (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Latif Qureshi</p> <p>Topic: Influence of soil salinity on crop productivity and people's livelihood of Malwah Distributary Shaheed Benazirabad, Sindh Student: Ms. Preh Gulshan (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Latif Qureshi</p> <p>Topic: Tarbela Dam water level monitoring using Sentinel 3 satellite radar altimetry data Student: Ms. Jasra Rehman (MS) Supervisor: Arjumand Zaidi</p> <p>Topic: Mekong River water level monitoring using Sentinel 3 satellite radar altimetry data Student: Mr. Touqeer Ali (MS) Supervisor: Arjumand Zaidi Co-Supervisor: Dr. Sumaira Zafar</p>