

Two-Day International Conference on

Water Governance & Climate Resiliency - Enhancing Climate Resilience through
Integrated Water Governance,
WASH Initiatives, Water Quality Conservation, and Water Circular Economy

Conference Dates: June 24-25, 2025

Venue – USPCAS-W, Mehran UET, Jamshoro

Detailed Program

Day 1 | [24th June 2025]

0900 - 0930	Registration and Seating	Reception USPCASW
0930 - 1100	Inaugural session Recitation of Holy Quran National Anthem of Pakistan Welcome Address (Prof. Dr. Kamran Ansari, Director, USPCAS-W, MUET, Jamshoro) Address by Guest of Honor-I (Dr. Shaikh Tanveer Ahmed, Chief Executive of Health and Nutrition Development Society (HANDS), Pakistan) Address by Guest of Honor-II (Prof. Dr. Altaf Ali Siyal, Vice Chancellor, SAU, Tando Jam) Address by Guest of Honor-III (Prof. Dr. Rasool Bux Mahar, Vice Chancellor, BBSUTSD, Khairpur Mirs) Address by Chief Guest (Prof. Dr. Tauha Hussain Ali, Vice Chancellor, MUET, Jamshoro) Vote of Thanks (Dr. Ghulam Hussain Dars, Associate Professor/Conference Coordinator, USPCAS-W, MUET, Jamshoro) Presentation of Souvenirs	
1100 - 1130	Refreshment and Networking Break	
1130 – 1300	Plenary Session-I: Water Quality & WASH Practices Venue: Auditorium Chair: Prof. Dr. Altaf Ali Siyal, VC, SAU, Tando Jam Co-Chair: Dr. Uzma Bhanbhro, Associate Professor, USPCAS-W Facilitators: M. Ibrahim Shaikh and Ms. Rubab Baloch Keynote Speakers <ol style="list-style-type: none"> 1. Dr. Rasool Bux Mahar, VC, BBS-UTSD, Khairpur Mirs 2. Prof. Dr. Syed Imran Ahmed, Director, PHWI, NED, Karachi 3. Mr. Khalid Mehmood Shaikh, CEO, SPHF 4. Prof. Dr. Zubair Ahmed, Keyano College, Alberta, Canada (Online) 	
1300 - 1400	Lunch / Prayer Break	
1400 – 1530	Plenary Session-II: Water Governance & Climate Resilience Venue: Auditorium Chair: Prof. Dr. Syed Imran Ahmed, Director, PHWI, NED, Karachi Co-Chair: Dr. Arjumand Zaidi, Senior Research Fellow, USPCAS-W	

	<p>Facilitators: M. Ibrahim Shaikh and Ms. Rubab Baloch</p> <p>Keynote Speakers</p> <ol style="list-style-type: none"> 1. Dr. Altaf Ali Siyal, VC, SAU, Tando Jam 2. Mr. Ghulam Mustafa Ujjan, ADU, SWAT 3. Engr. Naseer Memon, World Bank 4. Dr. Zia Hashmi, Qatar (Online) 5. Dr. Asif Khan, ADB Consultant/UET Peshawar (Online)
1530 - 1600	Refreshment and Networking Break

Day 2 | [25th June 2025]

0900 - 1000	<p>Conserving Indus River water quality through pollution source tracking, economical treatment systems, and water circular economy (CoE-37-HEC): Key achievements of the Project</p> <hr/> <p>Chair – Prof. Dr. Sheraz Memon, MUET</p> <p>Co-Chair – Dr. Arjumand Zaidi, Senior Research Fellow, USPCAS-W</p> <p>Facilitator – Momina and Alishba</p> <ul style="list-style-type: none"> • Urban Wastewater Discharges and Chemical Contaminants in the Indus River: Investigating Sources and Water Quality Impacts (Dr. Tanveer) • Microbial source tracking of Indus River Water (Dr. Naveed) • Water Quality Assessment of Indus River and its Tributaries in Pakistan (Dr. Uzma) • Health care cost and economic burden of waterborne diseases in six major cities of Pakistan due to wastewater discharge into the River Indus (Dr. Rizwan) • Wastewater quality and impact assessment for the selected cities across Indus River (Bilal Bashir). 	
1000 - 1530	Technical Sessions	Auditorium, Conference Room, & Room No. 05
1530 - 1600	<p>Closing Ceremony</p> <p>Facilitator: Ms. Rubab Baloch, Ms. Momina Ahmed, Ms. Alishba</p> <p>Conference Report (Dr. Tanveer Gadhi, Assistant Professor, USPCAS-W, MUET, Jamshoro)</p> <p>Recommendations of the Conference (Dr. Naveed Ahmed, Associate Professor, USPCAS-W, MUET, Jamshoro)</p> <p>Speech by the Chief Guest (Prof. Dr. Rizwan Ali Memon, Dean, Faculty of Architecture and Civil Engineering, MUET)</p> <p>Vote of Thanks (Prof. Dr. Kamran Ansari, Director, USPCAS-W, MUET, Jamshoro)</p> <p>Certificates Distribution Ceremony</p>	

Technical Sessions 1 – Water Quality Monitoring

Time: 1000 – 1130, Venue – Auditorium

Chair - Prof. Dr. Abdul Razzaque Sahito, MUET

Co-Chair - Dr. Tanveer Gadhi, MUET

Rapporteur - Momina, USPCAS-W Student

Facilitator - Tauqir Ahmed, USPCAS-W Student

S. No.	Title of the Paper	Presenter
1.	Spatial variability and hydrochemical quality of groundwater of Hyderabad Rural, Sindh, Pakistan	Laeq Ahmed Khan Khokhar
2.	Design And Development of Water Treatment Prototype for Use in Emergency Situation	Mehwish Fatima
3.	Water Quality and Public Health: A Case Study of Physicochemical and Microbial Parameters in Jamshoro, Pakistan	Faiza Ashraf
4.	Evaluation of Physicochemical Properties of Water Against WHO Standards: A Case Study of HDA Water Treatment Plant, Jamshoro Road, Hyderabad	Ghulam Qadir Memon
5.	Evaluation of Groundwater quality in different villages of Mirpurkhas	Gian Chand
6.	Water Quality Assessment of Jamshoro	Irfan Ali
7.	Assessment of Heavy Metal Contamination in Surface Waters of Hyderabad: An Emerging Environmental Concern	Jawad Ahmed
8.	Evaluation of Groundwater Quality Indicators in Taluka Lakhi Ghulam Shah, District Shikarpur	Ms Fatima Naz
9.	Physiochemical Analysis of Mixed Water Source and its Influence on Irrigated soil	Hafiz Muhammad Faisal Khan

Technical Sessions 2 – Innovative Water Governance & Technological Innovations

Time: 1000 – 1130, Venue – Conference Room

Chair - Prof. Dr. Qazi Suleman Memon, MUET

Co-Chair - Dr. Muhammad Ali Nizamani, MUET

Rapporteur - Alishba Khan, USPCAS-W Student

Facilitator - M. Ibrahim Shaikh, USPCAS-W Student

S. No.	Title of the Paper	Presenter
1.	Innovative Policies and Governance Models for Sustainable Water Management	Amna Naaem
2.	Addressing Urban Waste Management Challenges through Improved Municipal Service Delivery in Bahawalpur (Online)	Mudassar Maqbool
3.	Integrating climate Resilience into water governance: A policy Gap Analysis of Pakistan's National water policy 2018 (Online)	Muhammad Islam
4.	Climate Change and Water Scarcity: Sino-Indian Water projects and Implications for Pakistan	Fakhra Altaf
5.	Revolutionizing Water Governance through Digital Innovation: AI, IoT, and Big Data Insights	Laiba Shehzadi

6.	Utilizing 5S Principles for Construction Site Management in Sindh	Safeer Ahmed
7.	Development of solvent microextraction procedures for preconcentration, separation and atomic absorption spectrometry and high-performance Liquid chromatography for determinations of trace metals in Environmental Samples	Waheed Ali Soomro
8.	Analysis of platinum-based anticancer injections cisplatin and carboplatin in blood serum and urine of cancer patients by photometry, fluorometry, liquid chromatography using a Schiff-base as derivatizing reagent	Faiz Muhammad Khokhar
9.	Extraction of Atrazine herbicide pesticide from water using Transition Metal Oxide Decorated Chitosan Nanostructures (TMOD-Ch NSs) Loaded Solid Phase Extraction Cartridge	Safina Kamboh
10.	Design, fabrication, and Testing of a Cost-Effective Fume Hood for Water Quality Analysis Laboratories	Saroop Chand
11.	Pharmaceutical Residues in Wastewater of Hyderabad, Sindh Government Hospitals: Implications for Public Health and Water Governance	Faiza Ashraf

Technical Sessions 3 – Wastewater Treatment, Recycling & Reuse

Time: 1000 – 1130, Venue – Room No. 05

Chair - **Prof. Dr. Tanweer Hussain Phalpot, HW&SC Hyderabad**
Co-Chair - **Dr. Uzma Bhanbhro, MUET**
Rapporteur - **Rubab Baloch, USPCAS-W Student**
Facilitator - **Areena Marri, USPCAS-W Student**

S. No.	Title of the Paper	Presenter
1.	Utilization of Coal Fly Ash into Zeolite Synthesis for Enhancing Water Softening processes	Abeer Yaseen
2.	Optimization of N: P & Mg: P ratio for struvite recovery from molasses based distillery spent wash	Aliza Arain
3.	Photocatalytic removal of organic dye by cobalt doped zinc oxide nanoparticles: A Sustainable Approach for Wastewater Treatment	Ansa Latif
4.	Wastewater Treatment and Recycling: Challenges and Future Prospects	Asif Ali Thebo
5.	Photocatalytic Removal of Indigo Carmine Dye from Water using Clay Filter Coated with Zinc Oxide (ZnO)	Danish Ahmed khokhar
6.	Multiwalled Carbon Nanotubes based Photocatalysts for Tetracycline Antibiotic Removal from Contaminated Water	Dr. Shoaib Ahmed
7.	The Role of Wastewater Treatment, Recycling, and Reuse in Sustainable Water Management	Maryam
8.	Innovative Approach to Wastewater Treatment: Integrating Membrane Bioreactors with Bio-electrochemical Systems	Muhammad Mubashar Hanif
9.	Impact of Coal Power Plant on Soil Health and Water Quality of Sahiwal	Muzammal Hussain
10.	Water Pollution and Source Tracking	Shahzad Hussain

Technical Sessions 4 – Nature-Based Treatment Technologies

Time: 1130 – 1300, Venue – Auditorium

Chair - Prof. Dr. Awais Khatri, Textile Engg, MUET
Co-Chair - Dr. Naveed Qambrani, MUET
Rapporteur - Momina, USPCAS-W Student
Facilitator - Tauqir Ahmed, USPCAS-W Student

S. No.	Title of the Paper	Presenter
1.	Nature-Based Solutions for Water Governance and Climate Resilience	Hiba Zafar
2.	Development of catalyst for effective lignin degradation	Mahabash
3.	Nature-Based Treatment Technologies for Sustainable Water Management	Umar Hussain Khokhar
4.	Restoring Urban Canals with Riparian Vegetation Buffers to Control Nutrient and Sediment Pollution	Muhammad Mubashar Hanif
5.	Determination of Selected Organic Contaminants in Groundwater of District Naushero Feroz to Assess the Flashflood Impact.	Parvez Zaman
6.	Study of Ligand Effect on Catalytic Properties of Nanoclusters	Sitara
7.	Development Of Catalysts for Effective Lignin Degradation	Sitara Rajper
8.	Nature based solutions for the treatment of wastewater	Tasbeeha Noor
9.	Effect Of Biochar and Endophytic Bacteria on Phytoremediation of Oil Contaminated Soil Using Brachiara Mutica (Online)	Marwa Aymen

Technical Sessions 5 – Wastewater Treatment, Recycling & Reuse

Time: 1130 – 1300, Venue – Conference Room

Chair - Prof. Dr. Najma Memon, Sindh University
Co-Chair - Dr. Syeda Sara Hassan, MUET
Rapporteur - Alishba Khan, USPCAS-W Student
Facilitator - M. Ibrahim Shaikh, USPCAS-W Student

S. No.	Title of the Paper	Presenter
1.	Probing of nanostructured sulfonic dye carriers based on cationic-nonionic surfactants: mixed micellar solubilization	Muhammad Mushahid Zafar
2.	Life Cycle Assessment of Electrocoagulation Technique for Textile Wastewater Treatment (Online)	Sonam Devi
3.	DFT-Leveraged Designing of Novel Sodium Alginate-Based Hydrogel for the Efficient Adsorption of Model Pollutant	Muhammad Umar
4.	Wastewater Treatment, Recycling, and Reuse: Pathways to Global Water Security	Nayyab Nisar
5.	Synthesis and Characterization of Titanium Dioxide Nanoparticles via Sol-Gel Method for Photocatalytic Degradation of Atrazine.	Saira Sidhu
6.	Removal of Atrazine Herbicide using Polymeric Modified Nanofibers Membrane in water	Saira Sidhu

7.	Photocatalytic degradation capability of SnO ₂ nanoparticles as a catalyst versus Malachite Green Dye	Sanjna
8.	Closing the Loop: Wastewater to Resource	Sayed Mazhar Ali
9.	Recycling of Wastewater with Canal Water: Effects on Soil Health and Vegetable Yield under Climate Change	Shaukat Ali Abro

Technical Sessions 6 – IWRM and GIS & RS Applications

Time: 1130 – 1300, Venue – Room No. 05

Chair - **Dr. Habibullah Abbassi, Sindh University**
Co-Chair - **Dr. Arjumand Zaidi, MUET**
Rapporteur - **Rubab Baloch, USPCAS-W Student**
Facilitator - **Areena Marri, USPCAS-W Student**

S. No.	Title of the Paper	Presenter
1.	Integration of GIS and Remote Sensing for Advanced Water Resource Management and Environmental Sustainability	Abdul Wahab
2.	Optimizing Nutrient Use to Prevent Groundwater Contamination Using Remote Sensing and GIS	Abdullah Ikram
3.	Leveraging Satellite Imagery and GIS for Water Governance in Pakistan	Ambreen Shabbir
4.	Impacts of Urbanization on Water Resources and Environmental Health in Pakistan: An RS and GIS Approach.	Ameer Umar Kharal
5.	Harnessing Remote Sensing and GIS for Sustainable Water Resource and Environmental Management.	Dr. Mushtaque Ahmed Rahu
6.	Integrating Deep Learning and Google Earth Engine for Enhanced Water Resource Monitoring Using Remote Sensing and GIS	Muhammad Mubashar Hanif
7.	Comparative Study Of Bottle Drip and Pitcher Irrigation Method for Okra Crop	Amir Khan
8.	Urban Water Security: Adapting to Climate Extremes and Rapid Urbanization	Ayesha Moeen
9.	Integrated Water Resource Management in Soon Valley Issues Options and Challenges	Dr. Farooq Ahmed
10.	Smart Irrigation for Sustainable Agriculture: Integrating IoT-Based Soil Moisture Monitoring and Sprinkler Systems to Optimize the Water-Energy-Food Nexus	Murad Ali

Technical Sessions 7 – Water Quality Monitoring & Water Circular Economy

Day 2, Time: 1400 – 1530, Venue – Auditorium

Chair - **Prof. Dr. Zeeshan Khatri, MUET**
Co-Chair - **Dr. Tanveer Gadhi, MUET**
Rapporteur - **Momina, USPCAS-W Student**
Facilitator - **Tauqir Ahmed, USPCAS-W Student**

S. No.	Title of the Paper	Presenter
1.	Public Health and Economic Burden of Microbiological	Shakir Ali

	Contamination in Water Sources	
2.	Who is more water insecure? Gendered evidence from urban Pakistan (Online)	Sohaib Aqib
3.	Quality Assessment of Groundwater in a coastal region district Thatta, Sindh, Pakistan	Taj Muhammad Jahangir
4.	Effects of water ecological restoration on river water quality: a study	Abdul Munim Sahito
5.	The Significance of circular economy in Agriculture	Maryam
6.	Enhanced Biogas Production from Edible Oil Sludge and Cattle Manure via Mesophilic Anaerobic co-digestion.	Ayaz Ali
7.	Calculating Total Water Cost for Controlling Water Shortage In District Peshawar, Khyber Pakhtunkhwa Pakistan	Suleman Amin
8.	Isolation of PHA accumulating bacteria by utilization of corn cob for environmentally sustainable PHA production (Online)	Bakhtawar Javed
9.	The Future of Water Sustainability in Pakistan: Circular Economy Approaches to Reduce Scarcity (Online)	Noreen Kousar

Technical Sessions 8 – Climate Change Resiliency Mitigation & Adaptation

Day 2, Time: 1400 – 1530, Venue – Conference Room

Chair - **Prof. Dr. Qazi Suleman Memon, MUET**
Co-Chair - **Dr. Muhammad Ali Nizamani, MUET**
Rapporteur - **Alishba Khan, USPCAS-W Student**
Facilitator - **M. Ibrahim Shaikh, USPCAS-W Student**

S. No.	Title of the Paper	Presenter
1.	Reimagining Water Solutions with Innovation, Climate Adaptation, and Wastewater Recycling in Shaping a Resilient Future	Hassam Ahmed Ramay
2.	Roadside Air Purifier with Real-Time Monitoring and Adaptive Control for Urban Air Quality Improvement	Abdullah Ateeq
3.	Climate justice (Gilgit-Baltistan)	Ahbab Ullah
4.	A data driven approach: Integrating Artificial Intelligence in Climate Change Mitigation	Areeba Sajid Mahmood
5.	Water Governance and Climate Resilience in Lower Sindh: Empowering Communities through Integrated WASH	Basit Ali Talpur
6.	Development and Assessment of a Coal Ash- Based Ceramic membrane	Beenish jatoi
7.	Climate Change and Natural Disaster Effect on Food Security and Resiliency	Ghulam Nabi
8.	Climate change Resiliency Mitigation and Adaptation	Hasan Tariq
9.	Emission characteristics and performance optimization of coal-Biomass co-combustion systems	Hasnat Ali
10.	Water Governance integrating Climate Change Resilience Mitigation and Adaptation	Jawaid Hussain

Technical Sessions 9 – Climate Change Resiliency Mitigation & Adaptation

Day 2, Time: 1400 – 1530, Venue – Room No. 05

Chair - Prof. Dr. Kamran Ansari, MUET
Co-Chair - Dr. Ghulam Hussain Dars, MUET
Rapporteur - Rubab Baloch, USPCAS-W Student
Facilitator - Areena Marri, USPCAS-W Student

S. No.	Title of the Paper	Presenter
1.	Effectiveness of Mitigation Measures in Reducing Vulnerabilities of Flood-Affected Communities of District Nowshera	Junaid Jalil
2.	Sustainable Recycling Solutions: A Strategic Approach to Plastic Bottle and Eggshell Waste Collection in Hyderabad and Jamshoro	Mariam Mir Memon
3.	Assessing Spatiotemporal Precipitation Variability Under Climate Change in Sindh, Pakistan	Muhammad Hannan
4.	Community-led resilience for flood prevention: Evaluating the strategies at gross root level initiatives for sustainable flood management and adaptation in the wake of climate change in Pakistan.	Shafique Ahmed Khaskheli
5.	Valorization of Banana Waste for Fiber Extraction & Value-Added Bio-Products for Circular Economy under Changing Climate	Shaukat Ibrahim Abro
6.	Community Engagement & Mobilization through Art: A Climate Change Awareness Initiative	Muhammad Rajub
7.	Community-based Institutional Building: Processes and Actions for Sustainable Impact in the Water, Sanitation and Hygiene Program of Al-Khidmat Foundation Pakistan	Hafsa
8.	Sustainable Eco-Tourism and Water Conservation: A Global Approach to Community Engagement in WASH & Responsible Tourism	Hamza Khan