



**1st UET Seminar on Membrane-based Cleaning Technologies (MCT-2022)
and
2nd PMS Congress on Membranes and Membrane Processes (PCOM-2022)**



Monday, October 24, 2022 at UET Lahore

START	END	ACTIVITY		
09:00	09:30	Reception and On-Desk Registration <i>Seminar Hall, Chemical Engineering Department, UET Lahore</i>		
09:30	10:00	Inaugural Ceremony		
09:30	09:35	Recitation from Holy Quran		
09:35	09:40	National Anthem		
09:40	09:45	Welcome Address by President Membrane Society		
09:45	09:50	Inaugural Address by Conference Chair-Prof. Dr. Naveed Ramzan		
09:50	10:20	Membrane-based Cleaning Technologies for Communities and Industry <i>Speaker: Prof. Dr. Asif Ali Qaiser, Department of Polymer and Process Engineering, University of Engineering & Technology, Lahore</i>		
10:20	10:30	Address by Chief Guest-Mr. Kashif Anwar, President LCCI		
10:30	10:40	Address by Vice-Chancellor/Dean, UET Lahore		
10:40	11:00	Tea Break cum Side Meetings <i>Chemical Engineering Department, UET Lahore</i>		
Session Chair: Prof. Dr. Saeed Gul (UET Peshawar) /Dr. Amir Muhammad (PAF-IAST)				
11:00	12:00	Plenary Talks on Membrane Cleaning Technologies		
11:00	11:30	Recent and Future Trends in Membrane Technology <i>Speaker: Dr. Ming Xie, Department of Chemical Engineering, University of Bath, UK</i>		
11:30	12:00	Membranes Applications in Pakistan: An Overview of Water Purification Technology <i>Speaker: Engr. Malik Saleem Ullah Saeed, Chief Operating Officer, Water Engineering & Management Services (Pvt.) Ltd., Lahore</i>		
12:00	13:15	Lunch-cum-Prayer Break <i>UET Staff Club</i>		
Session Chair: Dr. Asim Laeeq Khan				
13:15	15:00	Highlights of Membrane-based Research Activities		
13:15	13:30	Dr. Asim Laeeq Khan (<i>COMSATS University, Lahore</i>)		
13:30	13:45	Dr. Saeed Gul (<i>UET, Peshawar</i>)		
13:45	14:00	Dr. Sarah Farrukh (<i>NUST, Islamabad</i>)		
14:00	14:15	Dr. Abdul Mannan (<i>PU, Lahore</i>)		
14:15	14:30	Dr. Amir Muhammad (<i>PAF-IAST, Haripur</i>)		
14:30	14:45	Dr. Faheem Hassan Akhtar (<i>LUMS, Lahore</i>)		
14:45	15:00	Dr. Muhammad Sarfraz (<i>UET, Lahore</i>) [Membranes for carbon capture]		
15:00	16:30	Student Presentations		
		<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Desalination & Water Treatment</u> <i>Seminar Hall, Chemical Engineering</i> Session Chairs and Judges: (Dr. Asim Laeeq Khan (CUI), Dr. Sikander Rafiq (UET </td> <td style="width: 50%; vertical-align: top;"> <u>Emerging Materials in Membrane Technology</u> <i>Library, Polymer Engineering</i> Session Chair: Prof. Dr. Shahzad Maqsood Khan (PU), Dr. Sarah Farrukh (NUST), Dr. Fida Hussain (PAF-IAST) </td> </tr> </table>	<u>Desalination & Water Treatment</u> <i>Seminar Hall, Chemical Engineering</i> Session Chairs and Judges: (Dr. Asim Laeeq Khan (CUI), Dr. Sikander Rafiq (UET	<u>Emerging Materials in Membrane Technology</u> <i>Library, Polymer Engineering</i> Session Chair: Prof. Dr. Shahzad Maqsood Khan (PU), Dr. Sarah Farrukh (NUST), Dr. Fida Hussain (PAF-IAST)
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		LHR), Dr. Muhammad Sarfraz (UET LHR)	
15:00	15:10	Upcycling poly (ethylene terephthalate) by fabricating high-performance membranes for seawater desalination <i>Muhammad Hafi Wadgama (LUMS Lahore)</i>	Polyaniline (PANi) coated sulfonated polyvinyl alcohol (SPVA)-sepiolite composite membrane for fuel cell application <i>Fazila Ashraf (UET Lahore)</i>
15:10	15:20	Optimization of thin film composite nanofiltration (TFC-NF) membranes for the removal of heavy metals <i>Tooba Sahar (Lahore School of Economics)</i>	Porous composite cyclodextrin membrane for advanced molecular filtrations <i>Arooj Gul (LUMS Lahore)</i>
15:20	15:30	Optimized composite adsorbent development for desalination application <i>Sundus Khushnood (GIKI Swabi)</i>	First principle investigation of hydrophobic deep eutectic solvents for the separation of bioethanol from aqueous media using COSMO-RS model <i>Palwasha Khan (COMSATS, Lahore)</i>
15:30	15:40	Indigenous development of 1812 spiral wound module with novel PES-PVA/PANI membranes for arsenic removal from drinking water <i>Nida Abid (UET Lahore)</i>	WS ₂ nanosheets rooted in polyethylene terephthalate membrane for gas barrier properties improvement <i>Muhammad Salman Shah (NUST Islamabad)</i>
15:40	15:50	TiO ₂ embedded mixed-matrix nanofiltration PES membranes for water purification <i>Ayesha Bilal (COMSATS Lahore)</i>	Experimental and theoretical insights: novel hydrophilic ionic liquid-based pervaporation membranes for bioethanol dehydration <i>Zakawat Ali (Institute of Process Engineering, Beijing China, COMSATS Lahore)</i>
15:50	16:00	Desalination of highly saline wastewater using ion exchange membranes and electrolysers <i>Muhammad Farman (UET Lahore)</i>	Edible green food coatings composed of conjugated noble metal nanoalloys by gallic acid from plant extract <i>Sadia Mehmood (ak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Mang, Haripur)</i>
16:00	16:10	Solar photovoltaic assisted membrane technology for wastewater treatment <i>Dr. Saher Shakir (NUST Islamabad)</i>	High performance mixed-matrix membrane for CO ₂ capturing using polysulfone and ZIF-302 <i>Hafiza Sidra Nawaz (UET Lahore)</i>
16:10	16:20	Synthesis and characterization of hydrophobic geopolymeric membrane from metakaolin for water desalination	Biocompatible sulfonated penta block co-polymeric membrane for hemodialysis <i>Mashal Zahid (NUST Islamabad)</i>

		<i>Naeem Ahmad (UET Peshawar)</i>	
16:20	16:30	Fabrication of asymmetric polyether sulfone/PANI nanofiltration membrane for heavy metal removal <i>Samrina Sharif (UET Lahore)</i>	Bio-composites based on PVC and walnut charcoal <i>Misbah (SBBWU Peshawar)</i>
16:30	16:40	The influence of interfacial tension on separation for oil/water system <i>Muhammad Amir Sarwar (UET Peshawar)</i>	Fabrication and characterization of polyetherimide and polyvinyl acetate blend membranes for CO ₂ separation <i>Adeel Mustafa (University of Engineering and Technology Lahore (New Campus) Lahore, Pakistan)</i>
		Treatment of Oily wastewater by Simultaneous Photocatalytic Oxidation and Adsorption Using TiO ₂ loaded Organophilic bentonite <i>Waqas Ahmed (University of Peshawar)</i>	
16:40	17:00	Poster Session-cum-Tea Break <i>Chemical Engineering Department, UET Lahore</i>	
		ZIF-67 porous liquid membranes for the dehydration of bio-ethanol <i>Hira Naveed (COMSATS Lahore)</i>	
		Green and sustainable membranes for dehydration of biofuels <i>Babar Saeed (COMSATS Lahore)</i>	
		Lignin based mixed matrix membranes for water purification <i>Azqa Arif (COMSATS Lahore)</i>	
		Machine learning as an aid for evaluating membrane separation performance for water vapor removal <i>Danish Barque (LUMS Lahore)</i>	
		Block-copolymer based thin film composite membranes for CO ₂ capture <i>Sajawal Masood (LUMS Lahore)</i>	
		Using membrane technology for the separation of hydrocarbons via pervaporation <i>Haider Iqbal (LUMS Lahore)</i>	
		Fabrication and analysis of mixed-matrix membrane utilizing metal organic framework (MOF-74) in PDMS for CO ₂ gas separation <i>Subhan Ali (NUST Islamabad)</i>	

Fabrication of mixed matrix membrane utilizing iron oxide magnetic nanoparticles for arsenic removal from industrial wastewater

Sidra Liaquat (NUST Islamabad)

CFD simulation of a proton exchange membrane for the application in fuel cells

Ashfaq Ahmad (PAF-IAST, Haripur)

Bioenergy production from wastewater using cost-effective ceramic membranes: recent trends, challenges, and commercialization

Syed Taufiq Ahmad (PAF-IAST, Haripur)

Membranes

Saman Ashraf (SBBWU Peshawar)

Improving proton conductivity and reducing hydrogen crossover in polymer electrolyte membranes by incorporating polyaniline-coated cation exchange resin particles

Bushra Ameer (UET Lahore)

Post-combustion CO₂ capture by MXene based mixed-matrix membrane

Shazain Khan (UET Peshawar)

Development of a novel thin film composite nanofiltration membrane incorporated with magnetic nano bio-sorbent for wastewater treatment

Muhammad Ayaz (UET Lahore)

Modelling and experimental studies of novel PES-PANI membranes synthesized by in-situ oxidative polymerization

Zumar Ahmad (UET Lahore)

Usage of nano-filtration membrane for the large-scale production of sustainable water supply in rural areas

Maryam Munir (UET Peshawar)

MXene nano composite nanofiltration membrane for water desalination

Hikmat Ullah (UET Peshawar)

Synthesis and desalination performance of biomimetic UF-NF membrane

Qazi Iqra Shafi (UET Peshawar)

MXene nano adsorbent used for removal of heavy metals from wastewater

Muhammad Ilyas (UET Peshawar)

		<p><i>Recent Advances & Applications of Bio Metal-Organic Frameworks</i> Azlan Kashif (University of engineering and technology, Lahore)</p> <p><i>Muhammad Wasif (University of Engineering and Technology Lahore)</i></p> <p><i>Development of highly permselective Mixed Matrix Membrane comprising of Polyimide and Ln-MOF for CO2 Capture</i> Ahsan Saleem (UET Lahore)</p> <p><i>Experimental Investigations to Optimize DADA-descaling Chemicals in RO Membrane Water Treatment Technologies</i> Maryam Saleem (Polymer and Process Engineering Department, UET Lahore)</p> <p><i>Recovery and treatment of Cooling tower Blow down saline water: Recent Advancement, challenges, and Future perspectives</i> Ashfaq Ahmad (Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Haripur)</p> <p><i>Thin-film composite DADA-MOFs membranes for dyes removal: a way forward to industrial applications</i> Dr. Aqsa Yasmin (DADA Water, Energy, & Environment Technologies (Private) Limited)</p> <p><i>Recent advancements and challenges in As(III) rejection through modified pressure driven membranes and membrane distillation: A review</i> Furqan Mahmood Awan (Pak-Austria Fachhochschule Institute of Applied Sciences and Technology, Haripur)</p>
Session Chair: Dr. Faheem Hassan Akhtar		
17:00	17:30	<p>PMS Award Ceremony</p> <p>Closing Speech by Conference Chair</p> <p>Closing Remarks by Chief Guest (Engr. Almas Hyder, Chairman EDB)</p>