



Day 1-Tuesday, September 14th, 2021

Tehran Time (UTC+03:30)	Program
8:00 - 9:00	Meeting opening for connection
9:00 -12:00 Opening Ceremony Chairs: Prof. A. Samimi Sistan & Baluchestan University, Zahedan, Iran & Prof. S. Shokrollahzadeh Iranian Research Organization for Science and Technology, Tehran, Iran	<p>9:00 Quran and National Anthem</p> <p>Welcome Remarks:</p> <p>9:10 Scientific Secretaries (Prof. A. Samimi & Prof. S. Shokrollahzadeh)</p> <p>9:20 USB short film</p> <p>9:25 Chancellor of University of Sistan and Baluchestan, USB (Prof. G. Rezaei)</p> <p>9:35 IROST short film</p> <p>9:40 President of Iranian Research Organization for Science and Technology, IROST (Prof. A. Ashori)</p> <p>9:50 IRI Parliament member (Dr. F. Maleki)</p> <p>Keynote speakers:</p> <p>10:00 Prof. Ahmad Akbari <i>Former Vice-Minister of MSRT, President of IROST, and Chancellor of USB</i> “Water: the precious commodity that we must be more concerned about....”</p> <p>10:30 Mr. Eng. Alireza Daemi <i>Former Vice-Minister of Ministry of Energy, Head of Directory Board of Hoordad Water and Clean Energy Development Company, Tehran, Iran</i> “An overview of water resources management in IR of Iran: Focusing on the use of unconventional water resources”</p>
11:00-12:00	Virtual Exhibition Visit
12:00-13:15	Break
13:15 –14:15	Poster Room – Title <u>(P.01 – P.05)</u>
14:15 - 17 Moderator: Prof. J. Sadeghi	<p>Session 1. Energy in Water and Wastewater Treatment</p> <p>14:15 Keynote speaker Prof. Adel Sharif <i>Department of Mechanical Engineering Sciences, University of Surrey, UK</i> “The role of science and technology in addressing the global challenges of water, food and energy”</p> <p>15:00 (33137) Performance improvement of the MED via energy and exergy point of view Kasaeian, M., Abbasszadeh, M., and Ehyaei, M. A.</p>

<p style="text-align: center;">&</p> <p>Prof S. Shokrollahzadeh</p>	<p><i>Department of Environmental Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran Tender and Marketing Manager Water and Power Rosemond, Department of Mechanical Engineering, Pardis Branch, Islamic Azad University, Pardis, Iran</i></p> <p>15:30 (33102) Use of saline water for increase the turbine output power by connection of direct contact membrane distillation (DCMD) unit to a steam injected gas turbine (SIGT) Peymani, A., Sadeghi, J., Shahraki, F., and Samimi, A. <i>Department of Chemical Engineering, Faculty of Engineering, University of Sistan and Baluchestan, Zahedan, Iran</i></p> <p>16:00 (33128) Towards sustainable desalination by increasing energy efficiency Abdollahi-Nasab, A., Dowlatabadi, N., Taghipour Zarei, A., and Jabbari Gharebagh, S. <i>Technology Studies Institute, Tehran, Iran</i></p> <p>16:30 (33145) Clean water extraction from spentwash using compression based evaporation and scale study on modified steel surface with nanomaterials R. Nath Tiwari, V. Verma, G. Verma, S. Kumar, K. Dharamvir <i>Centre for Nanoscience & Nanotechnology, Panjab University, Chandigarh, India</i> <i>Spray Engineering Devices Limited, Mohali, Punjab, India</i> <i>Chemical Engineering Department, Panjab University, Chandigarh, India</i> <i>Department of Applied Sciences, Panjab University, Chandigarh, India</i> <i>Department of Physics, Panjab University, Chandigarh, India</i></p>
<p>17:00 – 17:30</p>	<p>Break</p>
<p>17:30 – 19:40</p> <p>Moderator:</p> <p>Prof. A. Samimi</p> <p style="text-align: center;">&</p> <p>Dr. N. Naseri</p>	<p>Session 2. Sustainable Water-Energy-Environment-Food Nexus</p> <p>17:30 Keynote speaker Prof. Marwan Alraggad <i>Executive Director, Inter-Islamic Network for Water Resources Development and Management (INWRDAM), Amman, Jordan</i> “The reuse of treated wastewater as a contribution to the WEF Nexus in Jordan”</p> <p>18:15 (33123) Performance evaluation of closed circuit and conventional reverse osmosis systems brine production rate, chemical and energy Niazi, S., Pendashteh, A. R., and Doostdari, T. <i>The Caspian Sea Research Center, University of Guilan, Rasht, Iran,</i> <i>Department of Chemical Engineering, Faculty of Engineering, University of Guilan, Rasht, Iran</i></p> <p>18:40 (33125) Utilization of polyethersulfone (PES) hollow fiber as the membrane of a milliliter-scale microbial fuel cell (MFC) Yousefi, V., Mohebbi-Kalhari, D., and Heydari, A. <i>Chemical Engineering Department, Faculty of Engineering, University of Sistan and Baluchestan, Zahedan, Iran</i></p> <p>19:05 (33127) Water and energy nexus of thermal power plant (case study: Tarasht Power Plant) Abedi, S., and Kazemi Namin, M. <i>Faculty of Mechanical and Energy Engineering, Shahid Beheshti University, Tehran, Iran</i></p>
<p>19:30 -19:40</p>	<p>Summary & Closing</p>



Day 2-Wednesday, September 15th, 2021

Tehran Time (UTC+03:30)	Program
7:30 - 8:30	Meeting opening for connection
<p style="text-align: center;">08:30–10:50</p> <p style="text-align: center;">Moderator:</p> <p style="text-align: center;">Prof. D. Mohebbi</p> <p style="text-align: center;">&</p> <p style="text-align: center;">Dr. Y. Bide</p>	<p>Session 3. Biological Processes in Water and Wastewater Treatment</p> <p>08:30 Keynote speaker Prof. Huang Zhiyong <i>Tianjin Institute of Industrial Biotechnology, CAS; Tianjin Key Laboratory of Industrial Biological Systems and Process Engineering, Tianjin, China</i> “Construction and application of halophilic microbiome for high salinity organic wastewater treatment”</p> <p>09:10 Keynote speaker Prof. Nasrin Moazami <i>Iranian Research organization for Science and Technology, Tehran, Iran</i> “Unconventional water: Microalgae products in the Context of Circular Economy”</p> <p>09:50 (33138) Microalgae-based wastewater dewatering by forward osmosis Yazdanabad, S. K., Samimi, A., Shokrollahzadeh, S., Mohebbi-Kalhari, D., Moazami, N., Sobczuk, T. M., Ibáñez González, M. J., and Grima, E. M. <i>Department of Chemical Engineering, University of Sistan and Baluchestan, Zahedan, Iran; Department of Chemical Technologies, Iranian Research Organization for Science and Technology, Tehran, Iran; Department of Biotechnology, Iranian Research Organization for Science and Technology, Tehran, Iran; Chemical Engineering Department, Agrifood Campus of International Excellence, University of Almeria, Almeria, Spain</i></p> <p>10:10 (33117) Simultaneous process of desalination and household wastewater treatment in microbial desalination fuel cell: Evaluation of different mixed cultures Kazemi, A., Danaee, S., and Naghoosi, H. <i>Department of Microbial Biotechnology, Faculty of Basic Sciences and New Biological Technologies, University of Science and Culture, Tehran, Iran. Infectious Diseases Research Center, AJA University of Medical Sciences, Tehran, Iran</i></p> <p>10:30 (43139) Effect of carbon source concentration on the performance of a microbial desalination cell containing a microbial consortium Rabiee, R., Zamir, S.M., and Sedighi, M. <i>Biotechnology Group, Faculty of Chemical Engineering, Tarbiat Modarres University, Tehran, Iran; Energy and Environment Research Center, Niroo Research Institute, Tehran, Iran</i></p>
10:50 – 11:00	Break
<p style="text-align: center;">11:00-13:10</p>	<p>Session 4. Monitoring, Collection, and Management of Water Resources</p> <p>11:00 Keynote speaker Prof. T. V. Ramachandra <i>Centre for infrastructure, Sustainable Transportation and Urban Planning</i></p>

<p>Moderator:</p> <p>Prof. N. Moazami</p> <p>&</p> <p>Dr. M.M. Khalilipour-Langroudi</p>	<p>[CiSTUP], Indian Institute of Science, Bangalore, Karnataka, India “Optimal Management of water in Bangalore”</p> <p>11:40 (33144) Impact of effluent discharge and seasonal variations on Ekemazu stream in delta state, Nigeria Emmanuel-Akerele, H. A. <i>Department of Biological Sciences, Anchor University Lagos, Nigeria</i></p> <p>12:00 (33111) Assessing quality zoning of groundwater resources of Dez plain for agriculture with GIS Poursamsam, H. <i>Agricultural Jihad Management of Dezful, Dezful, Iran</i></p> <p>12:20 (33113) Modified nanofiltration membrane with graphene aerogel containing polyethyleneimine to remove lead from water: Experimental and simulation study Saeb, Z., Shokrollahzadeh, S., and Bide, Y. <i>Iranian Research Organization for Science and Technology, Tehran, Iran</i></p> <p>12:40 (33130) An overview on common strategies for brine solution disposal from desalination plants Gheshlaghi, P. <i>Fisheries Department, Faculty of Marine Sciences and Technology, University of Hormozgan, Bandar Abbas, Iran</i></p>
<p>13:00-13:10</p>	<p>Summary & Closing</p>
<p>13:10-13:40</p>	<p>Break</p>
<p>13:40-14:30</p>	<p>Poster Room – Title <u>(P.06 – P.10)</u></p>
<p>14:30 – 16:10</p> <p>Moderator:</p> <p>Prof. S. Shokrollahzadeh</p> <p>&</p> <p>Prof. A. Samimi</p>	<p>Session 5. Water Desalination</p> <p>14:30 Keynote speaker Prof. Jauad El Kharraz <i>Department of Thermodynamics and Earth Sciences, Global Change Unit, University of Valencia, Spain</i> “Desalination as a climate change adaptation option in water-scarce countries”</p> <p>15:10 (33124) An activated carbon/Zn-based metal-organic framework composite electrode for enhanced salt removal by capacitive deionization Ghorbanian, A.S., Rowshanzamir, S., and Mehri, F. <i>School of Chemical Engineering, Iran University of Science and Technology, Tehran, Iran; Fuel Cell Laboratory, Green Research Center, Iran University of Science and Technology, Tehran, Iran; Center of Excellence for Membrane Science and Technology, Iran University of Science and Technology, Tehran, Iran</i></p> <p>15:30 (33103) Fabrication and characterization of the thin film nanofibrous membrane with active layer incorporating multi-walled carbon nanotubes for desalination Beigmoradi, R., Samimi, A., and Mohebbi-Kalhari, D. <i>Chemical Engineering Department, Sahand University of Technology, Tabriz, Iran, Chemical Engineering Department, University of Sistan and Baluchestan, Zahedan, Iran</i></p> <p>15:50 (33131) Preparation of water softening membranes using a novel method of the functionalized UF membrane surface reaction with hyper-branched polymers Rajabzadeh, S., and Mohammadi, T. <i>Chemical Science and Engineering department, Kobe University, Japan; School</i></p>

	<i>of Chemical Engineering, Iran University of Science and Technology, Tehran, Iran</i>
16:10 - 16:20	Break
16:20 - 18:10	<p>Session 6. Challenges and Opportunities in Water Desalination</p> <p>16:20 Keynote speaker Prof. Noman Ahmed, Dr. Atif Mustafa <i>Faculty of Architecture and Planning; Panjwani Hisaar Water Institute, NED University of Engineering and Technology, Karachi, Pakistan</i> “Desalination as an alternative for developing countries: Challenges and opportunities”</p> <p>Moderator: Prof. M. Zivdar & Prof. M. Mazaheri</p> <p>17:00 (33100) The forward osmosis desalination and water treatment: High permeable GO-PAAm thin active layer membrane HussainZadeh, M., Mighani, H., and Shakeri, A. <i>Golestan University, Science Faculty, School of Chemistry, Gorgan, Iran</i> <i>Tehran University, Science Faculty, School of Chemistry, Tehran, Iran</i></p> <p>17:20 (33141) Membrane distillation process as supplementary purification of oil refining wastewater in order to industrial reuse - A case study Jalayer, M., and Alizadehfard, M. R. <i>Research and Technology Department, Bandar Abbas Oil Refining Co., Bandar Abbas, Iran; Osmosis Technology & Engineering Company (OSMOTEC), Sydney, Australia</i></p> <p>17:40(33112) Toward sustainable water desalination projects through active leakage control (case study: Bushehr city) Qaderi Bayeh, M. <i>Razi University of Kermanshah, Kermenshah, Iran</i></p>
18:00-18:10	Summary & Closing
18:10-19:00	Virtual Exhibition Visit



Day 3-Thursday, September 16th, 2021

Tehran Time (UTC+03:30)	Programme
7:30 - 8:30	Meeting opening for connection
08:30 - 10:30 Moderator: Dr. A. Alamolhoda & Dr. M. Arab	<p>Technical Session 7: Technological Achievements in Water Sector-1</p> <p>08:30 Keynote speaker Dr. A. Akbarzadeh <i>Water and Wastewater Research Center, Water Research Institute, Tehran, Iran</i> “Bright future of water using desalination as an unconventional water source in the Islamic Republic of Iran”</p> <p>09:10 Dr. M.R. Alizadehfard <i>Osmotec Co., Australia</i> “Seawater desalination by modified EDR and low-pressure RO”</p> <p>09:30 Mr. M.R. Mazaheri <i>Mega Co., Iran</i> “Electro-Membrane Technologies for Zero Liquid Discharge”</p> <p>09:50 Dr. M. Kambarani <i>Academic Center for Education, Culture and Research, Iran</i> “Research results in unconventional water treatment”</p> <p>10:10 Mr. Mir Durandish <i>Consultant and mentor in feasibility study of European industrial projects in Germany</i> “Two applicable technologies for water extraction and desalination”</p>
10:30 - 10:50	Break
10:50 - 12:50 Moderator: Prof. T. Miremadi & Prof. H. Hajihoseini	<p>Technical Session 8: Technological Achievements in Water Sector-2</p> <p>10:50 Keynote speaker Dr. Sudeh Dehnavi <i>Institute for Technology and Resources Management in Tropics and Sub-tropics (ITT), University of Applied Sciences, Cologne, Germany</i> “Development of a platform for data, information, and knowledge transfer in the water sector”</p> <p>11:30 Mr. Eng. A.R. Hadad <i>Spray Engineering Devices Limited, India</i> “Low Temperature Evaporator ”</p> <p>11:50 Dr. M.A. Kazemian <i>Taftan Accelerator Co., Iran</i> “New technologies in the field of water and how to commercialize them”</p> <p>12:10 Dr. A. Malekzadeh <i>K. N. Toosi University of Technology, Tehran, Iran</i> “Ocean, thermal potential, and desalination (OTPD)”</p>

	<p>12:30 Mr. Eng. A. Rahimi <i>SPINAS Co., Tehran, Iran</i> “Introduction of MBR Services by SPINAS Water Reuse Solution”</p>
12:50 – 13:20	Break
13:20 -14:20	Poster Room – Title <u>(P.11 – P.15)</u>
<p>14:20–17:20</p> <p>Moderator:</p> <p>Prof. S. Shokrollahzadeh</p> <p>&</p> <p>Prof. A. Samimi</p>	<p>14:20 Ms. Sama Tajasosi <i>Sama Gostaran Co., Iran</i> “Development of sustainable water treatment methods using local resources, modern crust, traditional core”</p> <p>14:40 Mr. Eng. M. Abbaszadeh <i>Rosemond Group, Tehran, Iran</i> “Multi-effect distillation (MED)”</p> <p>15:10 Final Discussion & Conclusions</p> <p>17:10 Declaration</p>
17:20 - 17:40	Closing Ceremony