Conference First Day, Wednesday, 23.03.2022

8:30 AM	9:45 AM	**Conference Check-in**	**DEC, Hall 2A South**

10:00 AM - 11:15 AM	**Opening Ceremony and Official Welcome**

11:15 AM	11:30 AM	**Morning Tea Break**

11:30 AM	12:00 PM	**Keynote Speech: Hon Karlene Maywald** **South Australian Water Ambassador and Conference Co-chair** The Australian Water Reform Journey, Key learnings for arid regions and where to from here?	**DEC, Hall 2A South**
12:00 PM	12:30 PM	**Keynote Speech: Prof. Sharon Megdal** **Director of the University of Arizona Water Resources Research Center** Managed Aquifer Recharge in Semi-Arid Regions	**DEC, Hall 2A South**

12:30 AM	2:00 PM	**Lunch - Transfer to technical sessions**

Parallel sessions 1 — 2:00 PM - 3:30 PM

Time		**Al Maktoum Ballroom I**	**Al Maktoum Ballroom II**	**Meeting Room 1**	**Opal Boardroom**
		D1-Track 1.2: Advanced technologies in Water Resources Management (Large scale water management, ASR, MAR, Hydroinformatics)	*D1-Track 1.3: Climate Change and Water Resources Resilience (Risk management, water conservation, provisioning)*	*D1-Track 1.1: Socio-Economic Water Studies (Governance, pricing, policy and regulation)*	*D1-Track 2.1: Non-Conventional Water Resources (desalinaton, water recycling, water reuse)*
		Chair: Prof. Ekkehard Holzbecher	*Chair: Prof. Vijay Singh*	*Chair: Prof. Manoj Shukla*	*Chair: Prof. Lourdes Vega*
2:00 PM	2:15 PM	**Keynote: Prof. Graham Fogg** Groundwater Basin Openness as A Determinant of Sustainability	**Keynote: Mr. Will Fargher** Governance and Investment Frameworks for Climate-resilient Urban Water Services: Insights from Australia for other Arid Regions	**Keynote: Prof. Basant Maheshwari** Sustaining the Invisible in Arid and Semi-Arid Regions: Participatory Monitoring and Management of Groundwater at the Local Level	**Ludovic Dumee** Atmospheric Water Generation in the Middle East – review of technologies and prospects
2:15 PM	2:30 PM				**Bernd Rusteberg, Jacob Bensabat and Philippe de Bourgoing** Seawater desalination and transboundary water transfer to meet freshwater needs in Jordan and Palestine
2:30 PM	2:45 PM	**Ekkehard Holzbecher, Thomas Berends, Angel Garcia and Ahmed Hadidi** Decision Support for Water Resources Management in Arid and Semiarid Environments, Example Oman	**Muhammad Liaqat, Ana Casanueva, Giovanna Grossi and Roberto Ranzi** Hydrological Response to Climate change under CORDEX-South Asia Experiments in Western Karakoram, Upper Indus Basin	**Hamed Assaf** Hydroeconomic Model for Managing Groundwater Resources in Arid Regions	**Mahmoud Seleiman, Nasser Al-Suhaibani and Salah El-Hendawy** Effects of Treated Wastewater and Synthetic Fertilizers on Productivity, Gross Energy, and Elements Analysis of Potential Bioenergy Crops
2:45 PM	3:00 PM	**Janardhana Raju Nandimandalam, Muniratnam P and Krishna Reddy Tv** Managed Aquifer Recharge (Mar) to Augment Depleted Aquifers in Water Scarcity Areas: Case Studies from Semi-Arid Regions of India	**Martina Zelenakova et al.** Analysis of Drought in the Eastern Part of Slovakia Using Standardized Precipitation Index	**M Peli, C Rapuzzi, E Romano, S Barontini, N Guyennon and Roberto Ranzi** Irrigation Deficit and Water Management In a Semiarid Mediterranean Agricultural District	**Daniel Janowitz et al.** Bartering Blue Water Vs. Green Energy – Innovative Swap-Options for Cooperation Between Israel and Jordan
3:00 PM	3:15 PM	**Chuck Cullom, Orestes Morfin, and Tami Shor** An Innovative Farmer – Water Utility Water Management Approach: Mechanism for Water-Efficient Agriculture and Drought Resilience	**Ali Akanda and Mohammed Alotaibi** Understanding Groundwater Depletion and Water Security Challenges in the Transboundary Aquifer Systems of the Arabian Peninsula	**Simone Stewart** Adaptive Management of the Groundwater Resources on Eyre Peninsula	**Harish Bhandary** Impact Assessment of Inland Desalination Units on Groundwater Quality and Levels in Kuwait
3:15 PM	3:30 PM	**Christoph Gerber et al.** Applying Environmental Tracers to Study a Karstified Aquifer in Semi-arid Australia	**Thian Yew Gan, Vijay Singh and Kai Ernn Gan** Enhancing the Resiliency of Drought Prone Regions of Africa and Canada Under Climate Warming Impact	**Nir Becker and Frank Ward** Integrated Water Management: A Planning Tool for Israel	**Mahmoud Elgendi et al.** Improving the solar still performance using nanomaterials: A review

3:30 PM	3:45 PM	**Afternoon Tea Break**

Parallel sessions 2 — 3:45 PM - 5:15 PM

Time		**Al Maktoum Ballroom I**	**Al Maktoum Ballroom II**	**Meeting Room 1**	**Opal Boardroom**
		D1-Track 1.2: Advanced technologies in Water Resources Management (Large scale water management, ASR, MAR, Hydroinformatics)	*D1-Track 1.3: Climate Change and Water Resources Resilience (Risk management, water conservation, provisioning)*	*D1-Track 2.2: Water Resources Sustainability (SDGs, water-food-energy nexus, social and economic growth and environmental sustainability in arid regions)*	*D1-Track 2.1: Non-Conventional Water Resources (desalinaton, water recycling, water reuse)*
		Chair: Prof. J. Raju	*Chair: Prof. Furat Al-Faraj*	*Chair: Prof. Minjie Chen*	*Chair: Prof. Rolando A. Flores Galarza*
3:45 PM	4:00 PM	**Declan Page, J Vanderzalm, D Gonzalez, O Barron and Michael Donn** Managed Aquifer Recharge for Water Security in Australia	**Keynote: Prof. Furat Al-Faraj** Groundwater Depletion in a Changing Climate and Human-Induced Interventions: A Case Study in Arid and Semi-Arid Region	**Keynote: Prof. Mohamed Dawoud** The Future of Water and Food Security in Arab Region	**Daniel Bahamon, Ki Ryuk Bang, Eun Seo Cho and Lourdes F. Vega** A Novel Pressure-Controlled Hybrid Graphene Oxide Membranes for Water Treatment: A Combined Experimental – Molecular Simulation Approach
4:00 PM	4:15 PM	**Pavitra Kumar et al.** Development of Long Short-Term Memory Model for Prediction of Water Table Depth in United Arab Emirates			**Abdullah Al-Mamun, Intisar Al Sulaimi and Jagdeep Kumar Nayak** A Study on The Influence of Volatile Fatty Acid on Biogas Production and Pathogen Destruction Using Thermophilic Anaerobic Digestion
4:15 PM	4:30 PM	**Jorge Isidoro, Ricardo Martins and João de Lima** Detection and Definition of the Free Surface with High Spatiotemporal Resolution Using Computer Vision	**Mohamed Meddi, Aicha Attaf and Hayet Saidi** Climate Changes Impact on Discharges in Five Basins of Northwest Algeria	**Sarah Cerra, Hui Yang, Akram Benali and Manoj Shukla** Irrigation With Brackish and Produced Waters: Benefits And Risks for Agricultural Sustainability of Arid Area	**Ahmed Yasir, Abdelbaki Benamor, Alaa Al Hawari and Ebrahim Mahmoudi** Chitosan-Graphene Oxide Composite Membrane for Fouling Reduction in Ultrafiltration
4:30 PM	4:45 PM	**Behailu Berehanu et al.** WEAP-MODFLOW model as an integrated water management Decision Support System (DSS), a case of the Middle Awash sub-basin, Central Ethiopia	**Eihab Fathelrahman, Timothy Green and Kenneth Strzepek** Climate Change Impacts and Adaptations for the Agricultural Sector in Ghana's Volta River Basin	**G Issanova, Amandyk Saduakhas, Aigerim Kalybayeva and K Tynybayeva** Shrinkage of the Aral Sea: Formation of The Aralkum Desert and Its Soil Cover	**Mohd Shariq Khan, Khursheed B. Ansari and Wahid Ali** Atmospheric Water Extractor and Space Cooling Unit
4:45 PM	5:00 PM	**Tomy-Minh Truong et al.** Fractured Rock Aquifers as A Storage Option of Desalinated Seawater for Improved Drought Resilience of Groundwater Resources	**Aarti Ghate and Dr. P. V. Timbadiya** Analysis of non-stationary return levels using extreme daily rainfall for Surat city, India	**Ganbaatar Khurelbaatar et al.** The Cost of Accomplishing SDG#6.2: A Country-Wide Planning and Assessment Tool for Wastewater Infrastructure	**Tarik Chfadi, Mohamed Gheblawi and Rafi Ullah Tasbih Ullah** An Appraisal of UAE Farmers' Perceptions and Valuation of Treated Wastewater Resources
5:00 PM	5:15 PM	**Javed Akhtar, Ahmad Sana and Syed Mohammed Tauseef** Application of Numerical Modelling to Predict the Ground Water Heads in Coastal Aquifers of Sultanate of Oman	**Modathir Zaroug, Michael Kizza and Sowed Wamala** Climate Change Adaptation at the Nile Basin Initiative	**Mingjie Chen, Aliya Al-Saidi, Ali Al-Maktoumi and Azizallah Izady** Numerical Simulation of CO2 Plume Geothermal Production in a Heterogeneous Reservoir Formation	**Tapas Biswas, Klaus Joehnk and Chris Williams** Growing Biofuel Crop (Arundo Donax) With Non-Conventional Saline Water in Arid Regions

5:30 PM	8:30 PM	**Gala Dinner/ Cultural Event**

Conference Second Day, Thursday, 24.03.2022

9:00 AM - 10:30 AM — Parallel sessions 3

	Al Maktoum Ballroom I	Al Maktoum Ballroom II	Meeting Room 1	Opal Boardroom
	D2-Track 1.1: Water Resources and Hydrological Processes (Rainwater harvesting, Flash Flood Prediction and Management) Chair: Prof. Anvar Kacimov	**D2-Track 1.3: Young Researchers (General Technical Themes)** Chair: Dr. Hamidreza Sharifan	**D2-Track 2.2: Spatial Technology, GIS, and RS in Water Resources** Chair: Mr Steve Morton	**D2-Track 2.1: Water Quality Management** Chair: Prof. Munjed Maraqa
9:00 AM – 9:15 AM	Giorgio Baiamonte, Carmelo Agnese and Vijay P. Singh — Multiple Non-Linear Reservoirs to Model Water Balance Components in Sandy Soils	**Keynote: Prof. Chong-Yu Xu** — Evaluation of 1 Hydrological Modeling Under Changing 2 Environmental Conditions	Marion Lux Castro et al. — Flood Mapping and Assessment During Typhoon Ulysses (Vamco) in Cagayan, Philippines Using Synthetic Aperture Radar Images	**Keynote: Dr. Carl Seubert** — Water Quality Monitoring from Space: Aquawatch Australia
9:15 AM – 9:30 AM	Eran Halfi, Johnathan B. Laronne, Avshalom Babad and Tom Kaholi — Measuring water velocity by LSPIV for accurate determination of water discharge and roughness coefficients in representative ephemeral streams		Waleed Al-Zubari, Ali Al-Shaabani and Nadir Abdulhameid — Upgrading Groundwater Monitoring Network in the Kingdom of Bahrain using Geostatistics and GIS	
9:30 AM – 9:45 AM	Renato Morbidelli, Carla Saltalippi, Jacopo Dari and Alessia Flammini — Temporal Aggregation of Rainfall Data and Its Influence on Trend Estimation for Annual Maximum Depths with Duration 24 Hours	Mark McDonnell et al. — Beach Sands as an Alternative Source of Freshwater Supply – Using Geophysics to Inform Well Design in Coastal Aquifers	Kate Williams, Eva R Rodriguez, D Woodrow, M Mattaboni, P Sheridan, D Evans, and Steven Morton — Enabling Automatic Ground Water Information Collection and Aggregation through Space and IoT in Australia (SIG Water)	Abdulnaser Aldarir, Peter-Wolfgang Graeber and Ian Desmond Gwiadowski — Using Numerical Model Pcsiwapro® For the Simulation of Infiltration System of Treated Wastewater and Rainwater in a Small Village
9:45 AM – 10:00 AM	João de Lima, S Zehsaz, J Isidoro, Isabel Lima and Ricardo Martins — Using Fluorescent and Thermal Tracers to Estimate Overland Flow Velocities	Afrah Al-Shukaili, Hilal Al-Mamari and Anvar Kacimov — Moisture-Vegetation Relationships of Omani Coastal Dunes; Nabkhas	Jonathan Jacobi — Satellite-based leak detection and cost benefit - Investing in existing water infrastructure	Hany Abd-Elhamid, Martina Zeleňáková, Akbar Javadi and Khalid Qahman — Assessment and Management of Seawater Intrusion in Gaza Aquifer in Response to Excessive Pumping and Sea Level Rise
10:00 AM – 10:15 AM	Gilbert Hinge, Mohamed Mohamed and Mohamed Hamouda — On The Use of Satellite Precipitation Products for Flood Application	Shoaib Ali, Mohamed Mohamed and Qasim Khan — Estimating groundwater drought at spatio-temporal scale improving GRACE resolution based on machine learning approach	Travis Wiederstein, Vaishali Sharda and Jonathan Aguilar — Evaluating spatial and temporal variations in sub-field level crop water demands	Zipho Samuel, Mike Ojemaye, Anthony Okoh and Omobola Okoh — Chelating nitrogenous groups grafted onto zinc oxide nanoparticles for the adsorption of methyl violet in aqueous solution
10:15 AM – 10:30 AM	Sahar Abidi, N Souid, A Kamel Toubal, M Achite and Lamia Lajili-Ghezal — Assessment of Soil Losses and Siltation of Sidi Salem Dam in Medjerda High Valley-Tunisia	Anwar Aljuwaisseri, Khawla Alshayji and Esra Aleisa — Life Cycle Assessment for Seawater Desalination Using Reverse Osmosis in Kuwait	Jorge Pena-Arancibia et al. — Landsat-based 30 m monthly actual evapotranspiration for Australia: development, implementation in Google Earth Engine and examples	Garba Ahmed, Ahmed Muhd Idris and Jibrin Gambo — Hydrogeochemistry to Assess the Groundwater Quality Using Multistatistical Methods

10:30 AM – 10:45 AM — Morning Tea Break

10:45 AM - 12:15 PM — Parallel sessions 4

	Al Maktoum Ballroom I	Al Maktoum Ballroom II	Meeting Room 1	Opal Boardroom
	D2-Track 1.1: Water Resources and Hydrological Processes (Rainwater harvesting, Flash Flood Prediction and Management) Chair: Prof. Giorgio Baiamonte	**D2-Track 1.3: Young Researchers (General Technical Themes)** Chair: Dr. Mohamed Hamouda	**D2-Track 2.2: Spatial Technology, GIS, and RS in Water Resources** Chair: Prof. Vijay P. Singh	**D2-Track 2.1: Water Quality Management** Chair: Dr. Carl Seubert
10:45 AM – 11:00 AM	Anvar Kacimov, Yurii Obnosov and Jiri Šimůnek — Subterranean holes in the arid vadose zone as perturbations of descending pore water fluxes: J. R. Philip's legacy revisited	Halidu Abu-Bakar, Leon Williams and Stephen Hallett — A framework for predicting household water consumption patterns	**Keynote: Prof. Rao S Govindaraju** — Estimation of Measurement Uncertainty Due to Errors in Rainfall and Streamflow Measurements using Random Forest	Klaus Joehnk et al. — Moving from Local Monitoring to Regional and Continental Scale Early Warning and Forecasting of Water Quality Risks
11:00 AM – 11:15 AM	Ghaida Bait Kulaib, Khaula Al-Mamari, Marwa Al-Mahdori and Ahmad Sana — Statistical Analysis of Flow for Selected Rivers in Pakistan	Asmaa Al-Mutiri, Esra Aleisa and Mohamed Hamoda — Life Cycle Assessment for Tertiary Wastewater Treatment in Kuwait		Jasem Alkandari — Effect of the Blending of Desalinated Seawater with Groundwater on the Formation of Trihalomethane Species in Drinking Water
11:15 AM – 11:30 AM	Mohammed Abdel-Fattah, Sameh Kantoush, Tetsuya Sumi and Atef Badr — Flood Risk Reduction in Arid and Semi Arid Regions: Case Studies from Egypt and Oman	Mark McDonnell et al. — Four-Dimensional Electrical Resistivity Imaging in Monitoring Saltwater Intrusion in a Nearshore Aquifer	Sivan Isaacson, Yosef Avrahami, Stanley R. Rotman and Yael Storz-Peretz — Mapping and monitoring flash floods spatial distribution and frequencies in arid regions using remote sensing spectral indices	Mohammad Faiz Alam, Karen G. Villholth and Joel Podgorski — Human Arsenic Exposure Risk Via Crop Consumption and Global Trade from Groundwater-Irrigated Areas
11:30 AM – 11:45 AM	Muheeb Awawdeh, Kh Al-Qudah, H Rwashdeh and Monther Jamhawi — GIS-based Flood Risk Assessment in Urban Areas: Case study Amman City	Firas Alsilibe, Katalin Bene, Ghada Bilal and Khaled Alghafli — Validation of CHIRPS-based satellite rainfall estimates in Damascus basin, Syria	Qasem Abdelal and Abdalrhman Alayan — Wireless Sensor Networks for hydrological monitoring, helpful tools for accurate models	Samia Saad, Akbar Javadi, Raziyeh Farmani and Mohsen Sherif — Optimal Management of Seawater Intrusion Using Infiltration Pond
11:45 AM – 12:00 PM	H El-Maghraby, A Alhumaidi, M Alnaqbi, M Sherif, F Hassan and Y Greish — Development of Chemically-functionalized Galvanized Aluminum Meshes for Efficient Fog Harvesting	Ihsanullah R Khan, Rabee Rustum, Qasim Khan and Mohamed M Mohamed — Estimation of flash flood in urban area of Dubai using Hydrologic Modeling System (HEC-HMS)	Lala El Hoummaidi and Abdelkader Larabi — Automatic Extraction of Water Bodies from High-Resolution Remote Sensing Imagery Using Deep Learning and GIS in Dubai	Rajesha Alambi, Mansour Ahmed, G Bhadrachari, Ali Al-Naser and Jibu Thomas — Brine Management Using Hydrophobic Nanocomposite Membranes
12:00 PM – 12:15 PM	Khalid Almheiri and Rabee Rustum — The Effect of Cloud-seeding Operations on Intensity-Duration-Frequency (IDF) curves A Comparative Study on Three Meteorological Satiations in Sharjah Emirate, UAE		Marwa Ali, A Badawy, A Elmahdi, Dubravka Bojic and Domitille Vallee — Implementing Water Accounting and Water Governance Analysis to Support Water – Energy- Food Nexus in the Mena Region: The Lessons Learned and the Way Forward	Hamidreza Sharifan et al. — Groundwater Contamination by PFAS Around Airports in The USA: Identification, Source and Commonality

12:15 PM – 1:00 PM — Lunch

1:00 PM – 2:00 PM — Poster Session (All themes) - Al Maktoum Ballroom I&II

2:00 PM - 3:30 PM — Parallel sessions 5

	Al Maktoum Ballroom I	Al Maktoum Ballroom II	Meeting Room 1	Opal Boardroom
	D2-Track 1.1: Water Resources and Hydrological Processes (Rainwater harvesting, Flash Flood Prediction and Management) Chair: Dr. Mohamed Al-Rashed	**D2-Track 1.3: Young Researchers (General Technical Themes)** Chair: Prof. Hamed Assaf	**D2-Track 2.2: Spatial Technology, GIS, and RS in Water Resources** Chair: Prof. Marion Lux Castro	**D1-Track 2.3: Emerging Water Issues in UAE and KSA** Chair: Prof. Mohsen Sherif
2:00 PM – 2:15 PM	**Keynote: Dr. John Xiaogang Shi** — Effects of Hydroclimate Variability on Groundwater Recharge Trends for Arid Regions	Alina Buber, V Shevchenko, A Buber, Y Dobrachev and E Ratkovich — Improvement of Rice Agricultural Complexes Water Supply in Conditions of Water Scarcity	Sivan Isaacson et al. — Monitoring Flash Floods in Arid Environments Using Bgusat; A Single Band Nano Satellite	Abdulmalek Alsheikh — The Role of the Prince Sultan Institute for Environmental, Water and Desert Research in Supporting Water Sustainability in the Kingdom of Saudi Arabia
2:15 PM – 2:30 PM		Khalid Elhaj, Salem Issa, Dalal Alshamsi and Biruk Abera Cherkose — Modeling and Prediction of Groundwater Level Fluctuations Using Geoinformatics and Artificial Neural Networks in Al Ain city, UAE	Jibrin Gambo, Ahmad Muhammad Idris, Garba Ahmed and Yusuf Ahmad — A Geospatial Statistical Approach for Seasonal Comparisons of Ground Water Quality Using Interpolates Grid-Based Mapping	Abdulaziz Alghamdi — The use of natural and synthesized soil amendments to improve soil properties and irrigation water saving
2:30 PM – 2:45 PM	Rachel Armoza-Zvuloni, Y Shlomi, I Abadi, R Shem-Tov and J Laronne — Floodwater harvesting and sediment deposition in reservoirs, a case study from the Arava Valley, Israel	Muhagir Elkamali, Abdelgadir Abuelgasim and Ahmed Sefelnasr — Monitoring of Land Surface Subsidence over Agricultural Areas in AL Ain Region UAE	Mutawakil Obeidat, Farah Al-Hantouli and Muheeb Awawdeh — Soil Erosion Prioritization of Yarmouk River Basin, Jordan Using Multiple Approaches in a GIS Environment	Hany Al-Ansary — Desolination: An EU-GCC Partnership for Innovative Solar Thermal Seawater Desalination
2:45 PM – 3:00 PM	O Abudraz, N Alkaabi, H El-Maghraby, M Sherif, F Hassan and Y Greish — Nano-architecture of Nanostructured Copper Oxides Decorated with Polyvinyl Alcohol as Efficient Water Harvester	Shahad Al-Yaqoubi, A Al-Maktoumi, A Kacimov, S Ismaily and A Al-Mayahi — Field Bailout Experiments, HYDRUS-2D and Analytical Modeling for Determination of Hydraulic Parameters of Porous Bed of Ephemeral Stream	Marwa Ali, Amgad Elmahdi, Ahmed Tawfik, Omar Ismail and Alaa Albably — Using ICT in Agricultural Water Management: IRWI as a Case Study from Egypt	Hassan Alzahrani — Hydrochemistry of groundwater samples from Wadi Fatima, Western Saudi Arabia with special emphasis on silica geothermometry
3:00 PM – 3:15 PM	Magdy Mohssen — Flood Forecasting, The New Zealand Experience	Mo'Ath Etoom, Ehab Aletoum, Ali Olimat and Taha Masarweh — Estimating crop evapotranspiration of dates trees based on SEBAL algorithm using Landsat 8 satellite imagery —A Case Study: Al Zarqa-Jordan	Mohsen Alarabawy, Modathir Zaroug and Sowed Wamala — Enhanced River Nile River Basin Monitoring For Improved Water Resources Collaborative Management and Development	Faisal Alfaisal — Model for Optimal Regional Wastewater Systems Planning with Uncertain Wastewater Treatment Capacity
3:15 PM – 3:30 PM	S M Anwar Hossain, Ataur Rahman and Ouarda Taha B. M. J. — Trend Analysis in Australian Flood Data: A Case Study for New South Wales Using Latest Information		Deepak Tiwari, H. L. Tiwari and V. P. Singh — Flash drought assessment for India river basins	Mohamed Dawoud, Saleh Al Aswad, H Abdel Rahman and Nahed Al Arabi — Sustainable Water Resources Management Under Climate Chnanges in KSA

3:30 PM – 3:45 PM — Afternoon Tea Break

3:45 PM - 5:15 PM — Parallel sessions 6

	Al Maktoum Ballroom I	Al Maktoum Ballroom II	Meeting Room 1
	D1-Track 1.2: Advanced technologies in Water Resources Management (Large scale water management, ASR, MAR, Hydroinformatics) Chair: Prof. Waleed Zubari	**D1-Track 2.2: Water Resources Sustainability (SDGs, water-food-energy nexus, social and economic growth and environmental sustainability in arid regions)** Chair: Prof. Mohamed Dawoud	**D1-Track 1.1: Socio-Economic Water Studies (Governance, pricing, policy and regulation)** Chair: Prof. Basant Maheshwari
3:45 PM – 4:00 PM	Abhishek Goyal, Renato Morbidelli, Alessia Flammini, Corrado Corradini and Rao Govindaraju — Uncertainty in estimation of field-scale variability of soil saturated hydraulic conductivity	Eric Vanweydeveld — What Lessons Can Remote Australia Learn from the Middle East in Terms of Water Management Solutions	Huw Pohlner and Will Fargher — WaterGuide: Setting a Path to Improved Water Management and Use Under Scarcity
4:00 PM – 4:15 PM	Trudy Green et al. — WaterTools: A guide to three national level platforms that support the management of Australia's scarce water resources	Bivin Pradeep and Parag Kulkarni — Technology Enabled Data Driven Solution for Enhancing Efficiency of Water Use in Buildings	Khaled Alshaibani — Investigating Household Consumption Patterns before and During The Covid-19 Pandemic
4:15 PM – 4:30 PM	Alexander Buber and Mikhail Bolgov — Formation of Reservoir Operation Modes in Real Time Based on Long-Term Hydrological Forecast and Multicriteria Optimization Methods, "Lake Baikal - Irkutsk Reservoir" Case Study	Avshalom Babad, Ilan Stavi, Yoav Avni and Noa Aviel-Avni — Native plants as indicators of soil quality in deserts: Consequences for dryland agriculture	Angus MacGregor and Glenn Shimmin — Valuing Community and First Nations Voices in Restoring the Coorong, South Australia
4:30 PM – 4:45 PM	Martin Klein, Emad Al-Karablieh and Stephan Theobald — Optimization of Transboundary Lake Operation and Conception of a Hydropower Plant at Lake Tiberias	Timothy Munday et al. — An Interdisciplinary Approach to Groundwater Resource Assessment for Sustaining Community, Environment & Economic Development in a Remote Arid Region of S. Australia	Soe Htun Aung and Takuya Igawa — Economic-Based Operation of Agricultural Water Distribution in Irrigation Districts without Water Marketing Mechanism
4:45 PM – 5:00 PM	Sebastian Schär et al. — Techno-Economic Assessment of Integrated Water Resources Management Infrastructure Projects	Mohamed Ibrahim Kizhisseri and Mohamad Mostafa Mohamed — Use of Decision Support System for Optimizing Long Term Water Resources Planning In Terms of Economic and Environmental Outcomes	Michael Kizza, Sowed Wamala and Mudathir Zaroug — State of Basin Reporting: A Tool for Cooperative Management of Transboundary Water Resources
5:00 PM – 5:15 PM	Mariana Damova et al. — ISME-HYDRO – an Integrated System for Monitoring of Water Resources for Sustainable Exploitation of Dams and Rivers	Jorge Peña Arancibia et al. — Development of a drought management plan in a regulated arid basin in southern Peru	Berhanu Degefa, Elke Neumann and Mohamed Al Muhairi — The Role of Hydroponic Technology in Economic Use of Water and Enhancing Productivity of Farms in the UAE

5:30 PM – 6:30 PM — Concluding Remarks - Awards - Recommendations - Closing Ceremony - Al Maktoum Ballroom I&II

International Conference on Water Resources Management and Sustainability: Solutions for Arid Regions

March 22-24, 2022 | Dubai, UAE

1:00 PM 2:00 PM	Poster Session (All themes) - Al Maktoum Ballroom I&II

Chair: Dr. Mohamed Hamouda

Talib Butt, Munjed Maraqa, Omar Alharbi, Cara Beal and Xenia Christodoulou
SUDS encapsulates climate change mitigation and climate change adaptation – One stone killing two birds

Nicolae Costin Mociu and Carmen Elena Maftei
The Application of Satellite Imagery And GIS Software to the Study of Waterfront Cities' Development

Tala Maksoud, Qasim Khan and Mohamed M. Mohamed
Groundwater Budget Analysis in Abu Dhabi Emirate Using Modflow

Qasim Khan and Mohamed M. Mohamed
Machine Learning: An interesting tool in studying groundwater

Muhammad Abrar Faiz, Mohsen Sherif and Faisal Baig
Exploring the drought propagation from meteorological to hydrological and soil moisture drought using time series analysis

Khaled Alghafli, Waleed Saeed, Warren Wood, Mohsen Sherif and Xiaogang Shi
Coupling Global Land Data Assimilation System (GLDAS) with In Situ Data to Monitor Groundwater Resources at Sabkha Matti, Middle East

Assaad Kassem, Joanna Doummar and Jason Gurdak
Sensitivity of an Integrated Groundwater Flow Model to Model Parameters - Application to Vulnerability Assessment of Karst Aquifers

Mohamed Elhag, Jaka Budiman, Jarbou Bahrawi, Asep Hidayatulloh and Mansour Almazroui
Volumetric Quantification of Flash Flood Using Microwave Data on a Watershed Scale in Arid Environments, Saudi Arabia

Aysar Al-Shamaa and Khalid Al-Marsumi
Flood Water Harvesting in A Flood Prone Area Using Remote Sensing And GIS – Case Study

Nadia Lahlou and Mohamed El Ghachi
The impact of flash floods on the extreme functioning of undeveloped basins: case of the Srou catchment (Février 2010 flood) (Oum Er-Rbia Basin, Morcco)

Mishal Alsehli
Thermal storage system as an alternative to the brine heater in a desalination plant: An experimental study

Juliet Nakasagga, Maha Abdelraheem Ismail and Sowed Wamala
Knowledge Products for the Nile Basin Initiative

Zahra Noorisameleh, William A Gough and M. Monirul Qader Mirza
Spatial variability of summer droughts and heatwaves in southern Canadian

Omer Ekmekcioglu and Mehmet Ozger
Advanced Soft Computing Applications for Hydraulic Efficiency Assessment of Storm Water Drain Inlets

Eyyup Ensar Basakin and Mehmet Ozger
Missing Data Imputation for Solar Radiation by Deep Neural Network

Shubham Tiwari
Factors Influencing the Site Selection Criteria for Efficient Aquifer Storage and Recovery (Asr) System in Saline Regions

Chair: Dr. Hamidreza Sharifan

Ali Al-Maktoumi, Anvar Kacimov and Mustafa El-Rawy
Managed Aquifer Recharge as a Reliable and Sustainable Water Supply In Duqm Area, Sultanate of Oman

Dinumol Varghese, Ahmed Thaher, Fadi Alnaimat and Bobby Mathew
Parametric Study Analysis of A 3-D Printed Solar Reciever in A Multi-Stage Flash Desalination Plant

Jose Manuel Murillo, Alberto Padilla, Joaquin Delgado and José Manuel Gómez-Fontalva Gómez-Fontalva
Recharge to Aquifers Located in Arid Zones Through the Application of the Renata Code. Distribution According to the Watershed and the Groundwater Divides

Khaled Alghafli et al.
Remote Sensing Applications for Water Managements Under Data Acquisition Challenges in Transboundary Basin, Case Study: Grand Ethiopian Renaissance Dam, Ethiopia

Abdel Azim Ebraheem et al.
Mapping Groundwater Potential Zones in UAE Using GIS-Based Hydrogeological Modeling

Faisal Baig, Mohsen Sherif, Abrar Faiz, Ahmed Sefelnasr, Abdel Azim Ebraheem and Khaled Alghafli
Evaluation of a Conceptual Rainfall-runoff Model Using Generalized Likelihood Uncertainty Estimation Approach

Swathi Mohandas Surekha et al.
Management of Seawater Intrusion in Coastal Aquifers: Past And Future Challenges

Khouldia Nafia and Mohamed El Ghachi
Low flow in the Oued el Abid basin (Morocco): better understand it to better manage it (Oum Errbia Basin - Morocco)

Michele Ferri et al.
Exploring the Potential of Innovative Methods for Integrated Water and Flood Risk Management in the Oriental Alpes River District: The Aqua3s Approach

Dia El Din El Qousy
Lessons to learn from the Australian Water Resources Management Case Study: The Murry Darling Basin and Some Arab Countries

C. Dionisio Pérez-Blanco and Francesco Sapino
Price Discrimination in Water Banks to Enhance The Effectiveness and Efficiency of Agricultural Water Buyback

Pankaj Kumar
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