

UAEU

جامعة الإمارات العربية المتحدة
United Arab Emirates University



2nd INTERNATIONAL CONFERENCE
**WATER RESOURCES MANAGEMENT
& SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS**

26-28 February 2024,
Dubai, UAE

**CONFERENCE
PROGRAM**

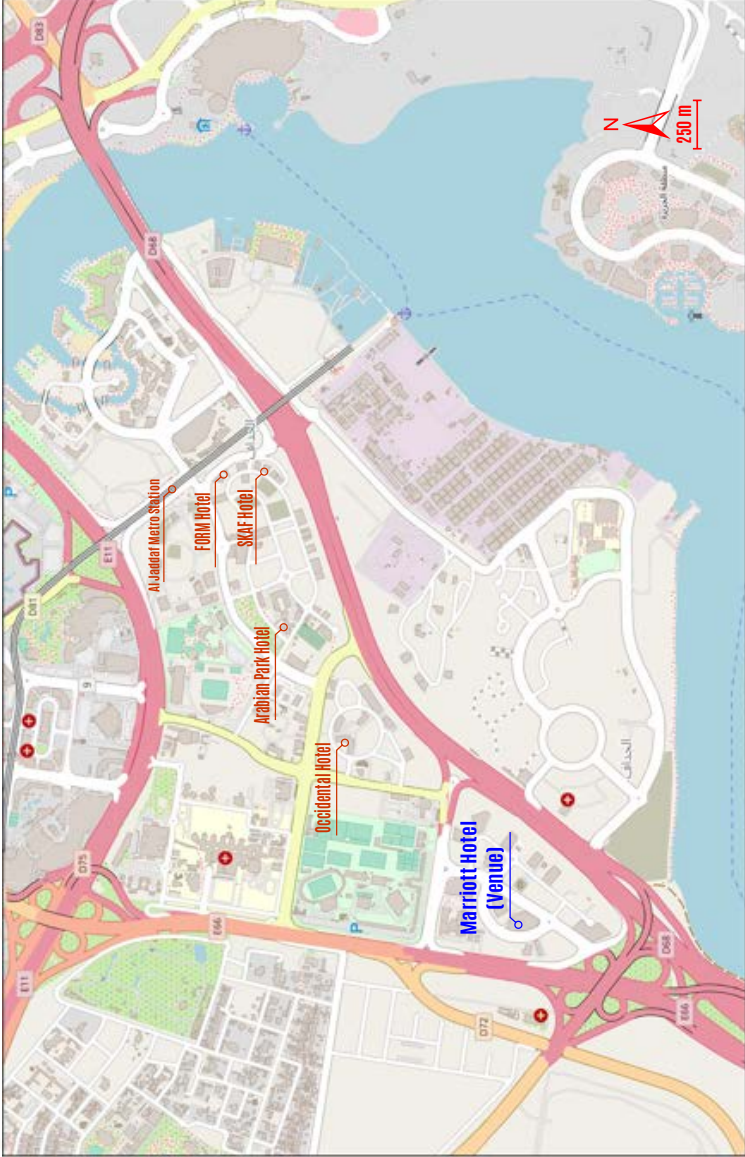


2nd INTERNATIONAL CONFERENCE

**WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:**

SOLUTIONS FOR ARID REGIONS

VENUE LOCATION



SESSIONS & THEMES

- **T1 SOCIO-ECONOMIC WATER STUDIES (GOVERNANCE, PRICING, POLICY, AND REGULATION)**
- **T2 CLIMATE CHANGE AND WATER RESOURCES RESILIENCE (RISK MANAGEMENT, WATER CONSERVATION, PROVISIONING)**
- **T3 WATER RESOURCES AND HYDROLOGICAL PROCESSES (HYDROINFORMATICS, RAINWATER HARVESTING, DROUGHTS, FLASH FLOOD PREDICTION AND MANAGEMENT, EARTH OBSERVATION)**
- **T4 ADVANCED TECHNOLOGIES IN WATER RESOURCES MANAGEMENT (LARGE SCALE WATER MANAGEMENT, ASR, MAR)**
- **T5 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT (DESALINATION, WATER RECYCLING, WATER REUSE)**
- **T6 WATER RESOURCES SUSTAINABILITY (SDGS, WATER-FOOD-ENERGY NEXUS,**



AGENDA OVERVIEW

TIME/DATE	25.02.2024	26.02.2024	27.02.2024	28.02.2024	29.02.2024
MORNING		OPENING CEREMONY	PARALLEL SESSION T5 T4 T3	PARALLEL SESSION T3 T6 T5	
			BREAK		
NOON		KEYNOTES	PARALLEL SESSION T5 T4 T3	PARALLEL SESSION T2 T6 T5	
			LUNCH		
AFTERNOON			POSTER SESSION		FIELD VISIT
			PARALLEL SESSION T-SQU T2 T1	PARALLEL SESSION T5 T6 T3	PARALLEL SESSION T2 T1 T4
EVENING			BREAK		
			PARALLEL SESSION T3 T2 T5	PARALLEL SESSION T5 T6 T3	CLOSING CEREMONY
		GALA DINNER (DESERT PARK)	CRUISE (MARINA DUBAI)	FREE TOURS (GLOBAL VILLAGE/ /BURJ KHALIFA)	
	WELCOME RECEPTION (MARRIOTT HOTEL)				

DATE: 25 FEB 2024

TIME: 2:00 PM - 6:00 PM

LOCATION: AL MAYDAN MEETING ROOM

2:00 PM - 3:30 PM

WORKSHOP 1:

**APPLICATIONS OF GIS AND RS IN WATER
RESOURCES MANAGEMENT**

CHAIR: PROF. AHMED SEFELNASR

MODERATOR: PROF. MOHAMED YAQOUB

4:00 PM - 6:00 PM

WORKSHOP 2:

PHYSICAL BASED RAINFALL RUNOFF MODELING

CHAIR: PROF. AHMED SEFELNASR

MODERATOR: PROF. MOHAMED SABER

7:00 PM - 9:00 PM

WELCOME RECEPTION



MONDAY
26 FEBRUARY 2024

2nd INTERNATIONAL CONFERENCE
**WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS**

OPENING CEREMONY

MONDAY 26 FEBRUARY 2024

- 8:00 AM - 9:45 AM
CONFERENCE CHECK-IN
- 10:00 AM - 11:00 AM
OPENING CEREMONY & OFFICIAL WELCOME
OPENING ADDRESS
HE ZAKI ANWAR NUSSEIBEH
CULTURAL ADVISOR TO THE UAE PRESIDENT
CHANCELLOR OF THE UNITED ARAB EMIRATES UNIVERSITY AND CONFERENCE PATRON

KEYNOTE SPEECH CHAIR: PROF. MOHSEN SHERIF
PROF. DAVE WHITE
GLOBAL INSTITUTE OF SUSTAINABILITY AND INNOVATION, ARIZONA STATE UNIVERSITY, USA
TITLE: CHALLENGES AND PATHWAYS FOR GLOBAL WATER SUSTAINABILITY IN ARID REGIONS
- 11:00 AM - 11:15 AM
MORNING TEA BREAK
- 11:15 AM - 11:45 AM
KEYNOTE SPEECH CHAIR: PROF. AHMED MURAD
PROF. VIJAY SINGH
DEPARTMENT OF BIOLOGICAL AND AGRICULTURAL SCIENCES, TEXAS A&M UNIVERSITY, USA
TITLE: EMERGING ISSUES IN ARID REGIONS HYDROLOGY
- 11:45 AM - 12:15 PM
KEYNOTE SPEECH CHAIR: PROF. AHMED MURAD
PROF. MOHSEN SHERIF
CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT, UAE UNIVERSITY, UAE
TITLE: WATER RESOURCE IN ARID REGIONS UNDER THE CONDITIONS OF CLIMATE CHANGE
- 12:15 PM - 1:00 PM
LUNCH



MONDAY

26 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T-USQU **SQU INVITED SESSION**
CHAIR: MOHSEN SHERIF
- **2:00 PM - 2:15 PM**
INTRODUCTORY STATEMENT
UAEU: Ahmed Murad
SQU:
- **2:15 PM - 2:30 PM**
DESIGN OF SOIL COMPOSITES AS WATER SAVING AND SOIL SALINITY PROTECTED CONSTRUCTOZEMS IN SHALLOW IRRIGATED COMPARTMENTS EXPOSED TO EVAPOTRANSPIRATION AND DEEP PERCOLATION
ANVAR KACIMOV, ANDREY SMAGIN AND NADEGHDA SADOVNIKOVA
- **2:30 PM - 2:45 PM**
TREATED WASTEWATER APPLICATION IN URBAN AGRICULTURE
AHMED AL-BUSAIDI AND MUSHTAQUE AHMED
- **2:45 PM - 3:00 PM**
IMPACT OF AQUIFER STORAGE AND RECOVERY PRACTICE ON CONTROLLING SEAWATER INTRUSION IN A LAYERED UNCONFINED COASTAL AQUIFERS USING SANDBOX EXPERIMENTS
MAWADA AL HINAI, ALI AL-MAKTOUMI, ANVAR KACIMOV AND AZIZALLAH IZADY
- **3:00 PM - 3:15 PM**
MODELLING OF VISCOUS FLOW IN PIPE CONJUGATED WITH DARCIAN SEEPAGE IN SAND TANK
SHAHAD AL-YAQOUBI, ANVAR KACIMOV AND ALI AL-MAKTOUMI
- **3:15 PM - 3:30 PM**
ANALYTICAL AND HYDRUS2D MODELS FOR PREFERENTIAL FLOW FROM IRRIGATED SOIL SURFACE TO SHALLOW WATER TABLE
ANVAR KACIMOV AND SAID AL-ISMAILY
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK

MONDAY

26 FEBRUARY 2024

- **3:45 PM - 5:00 PM**
T3.1 WATER RESOURCES AND HYDROLOGICAL PROCESSES
CHAIR: PROF. MICHAEL SCHNEIDER
KEYNOTE SPEAKER: PROF. VIJAY SINGH
- **3:45 PM - 4:15 PM**
IMPACTS OF DROUGHT ON INDIA AND PREPAREDNESS FOR DROUGHT UNDER GLOBAL WARMING
JEONGWOO HAN AND PROF. VIJAY SINGH
- **4:15 PM - 4:30 PM**
FREQUENCY ANALYSIS OF ANNUAL MAXIMUM DISCHARGE INTO LARGE RESERVOIR
DR. P V TIMBADIYA
- **4:30 PM - 4:45 PM**
FLOOD RISK HYDROINFROMATIC TOOLS FOR COMMUNITY APPLICATIONS
DR. EMAD HABIB
- **4:45 PM - 5:00 PM**
ASSESSING THE AGREEMENT BETWEEN FARMERS' PERCEPTION OF DROUGHT AND A REMOTE SENSING-BASED DROUGHT INDEX
NADIR AHMED ELAGIB, ABBAS E. RAHMA, MUHAMMAD KHALIFA, MARWAN M.A. ALI AND KARL SCHNEIDDER
- **6:00 PM - 8:30 PM**
GALA DINNER/ CULTURAL EVENT

MONDAY

26 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T2.1 CLIMATE CHANGE AND WATER RESOURCES RESILIENCE
CHAIR: PROF. EKKEHARD HOLZBECHER
KEYNOTE SPEAKER: PROF. DAVE WHITE
- **2:00 PM - 2:30 PM**
THE ARIZONA WATER INNOVATION INITIATIVE: TRANSFORMATIVE ADAPTATION FOR WATER SECURITY IN THE SOUTHWEST UNITED STATES
DAVE WHITE
- **2:30 PM - 2:45 PM**
WATER RESOURCES MANAGEMENT PRACTICE IN SEMI-ARID LAKE CHAD BASIN IN THE CONTEXT OF CLIMATE CHANGE AND LOCAL CHALLENGES
K SOLOMON ISIORHO, DAVID OMOLE, ISAAC AKINWUMI AND EDNA ISIORHO
- **2:45 PM - 3:00 PM**
PROJECTING SUB-NATIONAL WATER STRESS IN TROPICAL DRY FOREST REGIONS UNDER CLIMATE AND POPULATION CHANGE
KAYLA STAN, ARTURO SANCHEZ-AZOFEIFA AND HENDRIK HAMANN
- **3:00 PM - 3:15 PM**
REVIEW OF THE NILE BASIN HYDROLOGY, HYDROGEOLOGY AND POSSIBLE CLIMATE CHANGE IMPACTS
NAHED EL ARABI AND MOHAMED DAWOUD
- **3:15PM - 3:30 PM**
SUSTAINABLE INTENSIFICATION OF RICE- FALLOWS IN COMMAND AREA AND THEIR WATER AND CARBON FOOTPRINT ESTIMATION OF CROPPING SYSTEMS
B K DESAI, PRAMOD KATTI, M R UMESH, A G SREENIVAS, K NARAYANA RAO, SATYANARAYANA RAO AND HALIDODDI RAJKUMAR
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK

MONDAY

26 FEBRUARY 2024

3:45 PM - 5:00 PM

T2.2 CLIMATE CHANGE AND WATER RESOURCES RESILIENCE

CHAIR: PROF. FREDERIC HUNEAU

3:45 PM - 4:00 PM

VULNERABILITY TO MARINE INTRUSION OF COASTAL AQUIFERS: APPLICATION TO AN AQUIFER IN NORTH OF MOROCCO

MINA AMHARREF, FOUAD BEKKOUR, HIND ESSAOUINI, SIHAM ACHARKI AND ABDES SAMED BERNOUSSI

4:00 PM - 4:15 PM

OPTIMIZING WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE IN THE FACE OF EXTREME CLIMATE CONDITIONS

KELECHI IGWE, VAISHALI SHARDA AND IKENNA ONYEKWELU

4:15 PM - 4:30 PM

WATER PRODUCTIVITY AND WATER BALANCE ASSESSMENT IN FURFURO SMALL-SCALE IRRIGATION SCHEME USING AGROHYDROLOGICAL MODEL

KEDRALA WABELA, ALI HAMMANI, SIRAK TEKLEAB AND ABDELILAH TAKY

4:30 PM - 4:45 PM

FLOOD RISK MANAGEMENT EVALUATION AND CLIMATE CHANGE ADAPTATION IN TIMOR-LESTE AND WADI DERNA NE LIBYA

NAWAL ALFARRAH, ALEXANDER DE RUIJTER AND JUAN GARCÍA QUIJANO

4:45 PM - 5:00 PM

WATER CONSERVATION MEASURES ON CROP PERFORMANCE, WATER AND ENERGY USE OF RAINFED SUNFLOWER AND PIGEONPEA INTERCROPPING IN DEEP VERTISOL

R. AMRULLAH, M.R. UMESH, VIKAS KULKARNI, N. ANANDA, B.M. CHITTAPUR, ARUNKUMAR HOSAMANI AND VIJAYKUMAR GHANTE

6:00 PM - 8:30 PM

GALA DINNER/ CULTURAL EVENT

MONDAY

26 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T1.1 SOCIO-ECONOMIC WATER STUDIES
CHAIR: PROF. BILAL ACAR
- **2:00 PM - 2:15 PM**
THE RELATIONSHIP BETWEEN WATER RESOURCES, LAND USE, AND SOCIOECONOMIC CHANGES IN KHARGA OASIS, WESTERN DESERT (EGYPT): AN APPROACH USING REMOTE SENSING AND GEOSPATIAL ANALYSIS
ERINA IWASAKI, MOHAMMED HAGAGE AND SALWA ELBEIH
- **2:15 PM - 2:30 PM**
STAKEHOLDERS FORUM ON INTEGRATED FLOOD RISK MANAGEMENT IN CAGAYAN RIVER BASIN: BASIS IN WRITING POLICY RECOMMENDATIONS
ORLANDO BALDERAMA, LANIE ALEJO, JOFFREY LLOYD BARENG, JENNELYN RAYMUNDO AND CAROL JOY MANGADAP
- **2:30 PM - 2:45 PM**
DEMYSTIFYING THE MODELLING OF WATER IN COMPUTABLE GENERAL EQUILIBRIUM MODELS: A SYSTEMATIC REVIEW
SABA AL HOSNI, SCOTT MCGRANE, GIOELE FIGUS AND CECILIA TORTAJADA
- **2:45 PM - 3:00 PM**
WATER CONSERVATION IN JORDAN: CONNECTING THE DOTS FOR A SUSTAINABLE
MAJD AIDEH AND WAEEL SHETA
- **3:00 PM - 3:15 PM**
AN APPLIED METHODOLOGY FOR THE QUANTIFICATION OF SOCIO-ECONOMIC VALUATION OF GROUNDWATER RESOURCES IN MALTA
NICHOLAS ELLUL, JONATHAN SPITERI, DANIEL GRAVINO AND MANUEL SAPIANO
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK

MONDAY

26 FEBRUARY 2024

- **3:45 PM - 5:00 PM**
T5.1 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT
CHAIR: PROF. AKRAM ALSHAWABKEH
- **3:45 PM - 4:00 PM**
SUSTAINABLE WATER MANAGEMENT IN QATAR: A COMPREHENSIVE ANALYSIS OF NON-CONVENTIONAL WATER RESOURCES AND PRACTICES
SYED JAVAID ZAIDI AND HALEEMA SALEEM
- **4:00 PM - 4:15 PM**
BIOLOGICAL TREATMENT OF 4-NITROPHENOL CONTAMINATED WATER IN A PULSED PLATE COLUMN AS A TWO-PHASE PARTITIONING BIOREACTOR USING NOCARDIA HYDROCARBONOXIDANS
R PRIYANKA AND VIDYA SHETTY
- **4:15 PM - 4:30 PM**
WASTEWATER INDUSTRIAL DATABASE FOR SHUAIBA AREA IN KUWAIT
ADEL AL-HADDAD, HUSSAIN ABDULLAH, MOHAMMED AHMED,
ABDULLAH AL-MATOUQ, ABDALLA ABUSAM AND RASHED AL YASEEN
- **4:30 PM - 4:45 PM**
OFFSHORE FRESHENED GROUNDWATER: AN UNCONVENTIONAL WATER RESOURCE IN COASTAL REGIONS?
HIBA WAZAZ, AARON MICALLEF, CLAUDIA BERTONI, WEI-LI HONG, MICHELA GIUSTINANNI, KATRIN SCHWALENBERG, ARIEL THOMAS, JASPER HOFFMANN, ELIZABETH QUIROGA-JORDAN AND AMIN SHABAN
- **4:45 PM - 5:00 PM**
SUSTAINABLE USE OF TREATED WASTEWATER TO MITIGATE SEAWATER INTRUSION IN COASTAL AQUIFERS: LESSONS LEARNT FROM SALALAH, OMAN
AHMAD SANA, MAHAD BAAWAIN AND ABDULLAH AL-MAMUN
- **6:00 PM - 8:30 PM**
GALA DINNER/ CULTURAL EVENT

TUESDAY
27 FEBRUARY 2024

2nd INTERNATIONAL CONFERENCE
**WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS**

TUESDAY 27 FEBRUARY 2024

- **9:00 AM - 10:30 AM**
T5.2 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT
CHAIR: PROF. HAMIDREZA SHARIFAN
- **9:00 AM - 9:15 AM**
PERSPECTIVES ABOUT EFFECT OF MORINGA OLIFEIRA SEEDS FOR PERSONAL USED-WATERS TREATMENT
PHILIPPE LE COUSTOMER, NINI SANÉ, PERYSAMY SIVALINGAM, SERGE STOLL, JOHN POTE AND MALIK MBENGUE
- **9:15 AM - 9:30 AM**
PRODUCED WATER FROM GAS FIELDS AS A NON-CONVENTIONAL WATER RESOURCE
VIKTOR KOCHKODAN, SUHUR SAEED, LINSO VARGHESE AND JENNY LAWLER
- **9:30 AM - 9:45 AM**
HYPOXIA IN THE ARABIAN GULF: A CONSEQUENCE OF WASTEWATER-DRIVEN NUTRIENT LOADS?
LUCIA GASTOLDI AND JOHN BURT
- **9:45 AM - 10:00 AM**
A HYBRID MULTI-SOIL-LAYERING TREATMENT APPROACH FOR SUSTAINABLE WASTEWATER MANAGEMENT
AYA KAMMOUN, LAILA MANDI AND ABDELHAFID EL ALAOU EL FELS
- **10:00 AM - 10:15 AM**
FORWARD OSMOSIS MEMBRANES: SYNTHESIS AND APPLICATION IN BIO-ELECTROCHEMICAL SYSTEMS
ALKA MUNGRAY, MONALI CHHATBAR AND ARVIND KUMAR MUNGRAY
- **10:15 AM - 10:30 AM**
TREATMENT OF HUMAN WASTE FOR SUSTAINABLE SANITATION: A REVIEW
ZAVIN R. GAJERA, ALKA A. MUNGRAY AND ARVIND KUMAR MUNGRAY
- **10:30 AM - 10:45 AM**
MORNING TEA BREAK

TUESDAY 27 FEBRUARY 2024

10:45 AM - 12:15 PM

T5.3 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT

CHAIR: PROF. SHIV PRASHER

SESSION KEYNOTE SPEAKER: PROF. AKRAM ALSHAWAWABKEH

10:45 AM - 11:15 AM

COUPLING ELECTROCHEMICAL ADVANCED OXIDATION AND SORPTION FOR WATER TREATMENT

AKRAM ALSHAWAWABKEH

11:15 AM - 11:30 AM

IRRIGATION WITH BRACKISH WATER: IMPACTS ON TOMATO PHOTOSYNTHESIS, MINERAL NUTRITION, AND ROOT WATER UPTAKE

HUI YANG AND MANOJ SHUKLA

11:30 AM - 11:45 AM

FOG HARVESTING USING CHEMICALLY-FUNCTIONALIZED BIO-INSPIRED 3D-PRINTED MEMBRANES

AFRA ALHUMAIDI, AHMED GREISH, HESHAM EL-MAGHRABY, FATHY HASSAN, MOHAMED ALNAQBI, MOHSEN SHERIF AND YASER GREISH

11:45 AM - 12:00 PM

ASSESSING CROP WATER REQUIREMENT OF PROCESSING TOMATO BY INTEGRATING PROXIMAL AND REMOTE SENSING DATA

ANGELOLUIGI APRILE, OSCAR ROSARIO BELFIORE, ANNA PELOSI, GUIDO D'URSO AND GIOVANNI BATTISTA CHIRICO

12:00 PM - 12:15 PM

MULTIPLE ENSEMBLE MACHINE LEARNING MODELS FOR PREDICTING GROUNDWATER TDS IN COASTAL AQUIFER, OMAN

HUSSAM EL DIN ELZAIN, OSMAN ABDALLAH, ALI AL-MAKTOUMI AND KHALIFA AL-HIGGI

12:15 PM - 1:00 PM

LUNCH

TUESDAY

27 FEBRUARY 2024

● **2:00 PM - 3:30 PM**

TS.4 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT

CHAIR: PROF. PHILIPPE LE COUSTOMER

SESSION KEYNOTE SPEAKER: PROF. SHIV PRASHER

● **2:00 PM - 2:30 PM**

REDUCING SURFACE AND GROUNDWATER WATER CONTAMINATION USING NOVEL SOIL AMENDMENTS

SHIV PRASHER, JOBA PURKAYSTHA, MUHAMMAD AFZAL, RAMESH RUDRA, JASKARAN DHIMAN AND CHRISTOPHER NZEDIGWU

● **2:30 PM - 2:45 PM**

ENHANCING INDUSTRIAL WASTEWATER TREATMENT EFFICIENCY BY APPLICATION OF $Zn_{0.5}Mn_{0.5}Fe_2O_4$ /PMMA NANOCOMPOSITE MEMBRANE FOR THE REMOVAL OF COMPLEX ORGANIC POLLUTANTS

HAMIDREZA SHARIFAN, SOMAYEH MOHAMMADI, AMIRHOSSEIN MAHDAVI AND DARYOUSH SANAEI

● **2:45 PM - 3:00 PM**

SOIL MOISTURE STATUS AND RAINWATER USE EFFICIENCY AS INFLUENCED BY DIFFERENT LONG TERM NUTRIENT MANAGEMENT PRACTICES IN PIGEON PEA BASED CROP ROTATION SYSTEM

M VINAY KUMAR, SATYANARAYANA RAO, B K DESAI, PANDIT RATHOD, DHANOJI MAHALING, RAJU TEGGELLI AND M. R UMESH

● **3:00 PM - 3:15 PM**

HYBRID TREATMENT METHOD OF BIOFILTRATION PRECEDED WITH ADVANCED OXIDATION PROCESS FOR THE REMOVAL OF EMERGING CONTAMINANTS FROM THE WASTEWATER TREATMENT PLANT EFFLUENT

ANJALI MOHAN PAYATHUPARAMBIL AND ASHRAF ALY HASSAN

● **3:15 PM - 3:30 PM**

IONIC LIQUIDS AND ACTIVATED CARBON EFFICIENT MATERIALS FOR MEMBRANE PROCESSES IN RECYCLING AND VALORIZATION OF SALT WATER (BRINE)

MILOUDI HLAIBI, RACHID OUCHN, YOUSSEF CHAOUQI, SAÂD OUKKASS, ISSAM MECHNOU AND EFREM CURCIO

● **3:30 PM - 3:45 PM**

AFTERNOON TEA BREAK

TUESDAY 27 FEBRUARY 2024

- **3:45 PM - 5:00 PM**
T5.5 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT
CHAIR PROF. MANOJ SHUKLA
- **3:45 PM - 4:00 PM**
EFFECT OF GLANDLESS COTTONSEED MEAL AS A MAIN PROTEIN SOURCE OF EXTRUDED SHRIMP FEED
JORGE CARLOS GALARZA PRIETO, VICTOR VELAZQUEZ MARTINEZ, PATRICIA CABRALES ARELLANO, WIEBKE BOEING AND EFREN DELGADO
- **4:00 PM - 4:15 PM**
IRRIGATION TECHNIQUE AND SALINE WATER EFFECT ON YIELD, WATER PRODUCTIVITY, AND QUALITY OF TOMATO (SOLANUM LYCOPERSICUM) AND SIMULATION OF SOIL WATER USING HYDRUS MODEL
R. H. RAJKUMAR, M. NEMICHANDRAPPA, B. K. DESAI, ANILKUMAR T DANDEKAR, M. S. AYYANAGOWDAR, B. S. POLISGOWDAR, SATYANARAYANA RAO, J. VISHWANATHA AND M. J. KALDHONKAR
- **4:15 PM - 4:30 PM**
MnO₂ BIOINSPIRED HYDROPHILIC-HYDROPHOBIC NANOSTRUCTURED-ARCHITECTURE FOR FOG HARVESTING ON MESH
AHMED EL SIR, HESHAM EL-MAGHRABY, YASER GREISH, MOHSEN SHERIF AND FATHY HASSAN
- **4:30 PM - 4:45 PM**
PROGRESS ON THE DEVELOPMENT OF OPTIMIZED WATER MANAGEMENT SCHEMES FOR ENHANCED AGRICULTURAL PRODUCTION OF INTEGRATED FARMS IN KUWAIT
ABDALLAH ABUSAM, HUSSAIN ABDULLAH, ADEL AL-HADDAD, JASSIM AL-KANDARI, SALEH AL-HADDAD, SARA AL-HADDAD, FARAH AL-AJEEL, NORAH ALAYYADHI, BEDOUR ALSABTI, FATEMAH DASHTI, MOSAB AL JERI, SHABBIR SHAHID, AHMED AL-KHAYAT AND AMJAD AL-RASHIDI
- **4:45 PM - 5:00 PM**
PRODUCED WATER FROM THE OIL AND GAS INDUSTRY: PROBLEMS, CHALLENGES AND OPPORTUNITIES
FERAS AL SALEM, VIJO POULOSE, KAZUYUKI KAWAMURA, ARATA NAKAMURA, HAKIM SAIBI, YOSEF AL JASEM AND THIES THIEMANN
- **7:30 PM - 9:30 PM**
DHAW MARINA CRUISE

TUESDAY

27 FEBRUARY 2024

- **9:00 AM - 10:30 AM**
T4.1 ADVANCED TECHNOLOGIES IN WATER RESOURCES MANAGEMENT
CHAIR: PROF. N. J. RAJU
- **9:00 AM - 9:15 AM**
GROUNDWATER AND SUSTAINABLE AGRICULTURAL SYSTEMS NEXUS UNDER A CHANGING CLIMATE
ISAYA KISEKKA
- **9:15 AM - 9:30 AM**
IRRISAT ©: EFFICIENT MANAGEMENT OF IRRIGATION BASED ON REAL-TIME FULL SPECTRUM ELABORATION OF SENTINEL-2 DATA AND CLIMATIC MODELS
GUIDO D'URSO, OSCAR ROSARIO BELFIORE, CARLO DE MICHELE AND FRANCESCO VUOLO
- **9:30 AM - 9:45 AM**
Advanced Monitoring Network in the Vadose Zone for Nitrate Contamination
Manuel Sapiano, Michael Schembri, Luke Galea and Luca Laudi
- **9:45 AM - 10:00 AM**
STUDY ON FEASIBILITY OF RAINWATER HARVESTING USING MAR MODEL IN DRY LAND BARIND TRACT, BANGLADESH
JAHAN CHOWDHURY SARWAR, HOSSAIN MD. ARIF, MAZUMDER QUAMRUL HASAN AND RAHAMAN MD. FERUZUR
- **10:00 AM - 10:15 AM**
FORECASTING OF AN HOURLY WATER TABLE RISE USING ENSEMBLE STACKED SHALLOW AND DEEP LEARNING MODELS
OSMAN ABDALLAH, HUSSAM ELDIN ELZAIN, ALI AL-MAKTOUMI AND ANVAR KACIMOV
- **10:15 AM - 10:30 AM**
LOW-COST SOLUTIONS FOR MONITORING AND CONTROLLING AGRO-INDUSTRIAL WASTEWATER TREATMENT SYSTEMS
ARTUR SARAIVA, JOANA PORTUGAL PEREIRA, JOSÉ MELO E ABREU AND MARGARIDA CORREIA DE OLIVEIRA
- **10:30 AM - 10:45 AM**
MORNING TEA BREAK

TUESDAY 27 FEBRUARY 2024

- **10:45 AM - 12:15 PM**
T4.2 ADVANCED TECHNOLOGIES IN WATER RESOURCES MANAGEMENT
CHAIR: PROF. ISAYA KISEKKA
- **10:45 AM - 11:00 AM**
WATER RESOURCES, USES AND ITS INTEGRATED MANAGEMENT
MOHAMED ALZAABI, MOHSEN SHERIF, AHMED SEFELNASR AND ABDEL AZIM EBRAHEEM
- **11:00 AM - 11:15 AM**
SUSTAINABLE WATER MANAGEMENT BASED ON INNOVATIVE SYNERGIC APPROACH, NEW TECHNOLOGY AND COLLECTIVE INTELLIGENCE: INSIGHTS FROM MOROCCO
LHOUSSAINE BOUCHAOU, MOHAMMED HSSAISOUNE, SALAH ER-RAKI, YASSINE AIT BRAHIM, YOUSSEF BROUZIYNE, SALWA BELAQZIZ, ABDELGHANI BOUDHAR AND ABDELGHANI CHEHBOUNI
- **11:15 AM - 11:30 AM**
ROBUST IRRIGATION CANAL OPERATION USING RATIO FEEDBACK CONTROL
BLAIR STRINGAM
- **11:30 AM - 11:45 AM**
GROUNDWATER MANAGEMENT OF THE QUATERNARY AQUIFER USING THREE-DIMENSIONAL GROUNDWATER FLOW MODELING, EAST NILE DELTA, EGYPT
ABDULAZIZ MOHAMED ABDULAZIZ, ALAA AHMED, AMIR GABR AND DALAL ALSHAMSI
- **11:45 AM - 12:00 PM**
BIOACTIVE MEMBRANE SYSTEM FOR EFFICIENT EMERGING POLLUTANTS TREATMENT
AYAT HASSAN
- **12:00 PM - 12:15 PM**
EVOLVING STRATEGIES FOR GROUNDWATER SUSTAINABILITY IN SEMI-ARID ENVIRONMENT
ASHOK K. KESHARI
- **12:15 PM - 1:00 PM**
LUNCH

TUESDAY 27 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T6.1 WATER RESOURCES SUSTAINABILITY
CHAIR: PROF. ROKO ANDRICEVIC
- **2:00 PM - 2:15 PM**
RADIOACTIVITY AND SUSTAINABLE GROUNDWATER MANAGEMENT IN THE UAE
DALAL ALSHAMSI
- **2:15 PM - 2:30 PM**
TIME SERIES ANALYSIS OF THE DECLINING UNDER-GROUND WATER RESERVES OF THE UAE USING REMOTE SENSING DATA
MUHAMMAD USMAN AND KOSUKE HEKI
- **2:30 PM - 2:45 PM**
RECHARGE TO BRACKISH/FRESHWATER AQUIFERS IN ARID AND SEMI-ARID ENVIRONMENTS OF THE ARAB COUNTRIES: MORE INSIGHTS TO THE CONCEPT
AMJAD ALIEWI, MUHAMMAD AL-RASHED, FAWZIA AL-RUWAIH, KHALID HADI AND AHMED ABDULHADI
- **2:45 PM - 3:00 PM**
SOLUTIONS AND STRATEGIES FOR MANAGEMENT OF WATER RESOURCES IN KUWAIT – TARGETING UN SUSTAINABLE GOALS
AMJAD AL-RASHIDI, CHIDAMBARAM SABARATHINAM, BEDOUR ALSABTI AND DHANU RADHA SAMAYAMANTHULA
- **3:00 PM - 3:15 PM**
DEVELOPING A GEOSPATIAL MODEL TO PREDICT FUTURE WATER DEMAND IN THE AL AIN REGION
MAHMOUD AHMED, SALEM ISSA AND MOHAMED HAMOUDA
- **3:15 PM - 3:30 PM**
IMPACT OF GEOLOGICAL AND STRUCTURAL CONTROLS ON ALLUVIAL AQUIFER DISTRIBUTION IN ARID LANDS USING GEOINFORMATICS AND GEOPHYSICAL TECHNIQUES: A CASE STUDY FROM WADI AL BAROUD, EASTERN DESERT, EGYPT
SALEM ISSA, ABDELHALIM ALI, AHMED GAD, MOHAMED ATTWA, MOHAMED EL-BASTAWESY, AHMED ABD-EL-FATTAH AND MONA KAISER
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK

TUESDAY

27 FEBRUARY 2024

- **3:45 PM - 5:00 PM**
T6.2 WATER RESOURCES SUSTAINABILITY
CHAIR: PROF. JENNY LAWLER
- **3:45 PM - 4:00 PM**
CONTINENTAL WATER RESOURCES CONCERNED BY MICRO AND NANOPLASTICS?
PHILIPPE LE COUSTOMER, HANDE OKUTAN, BEDRI TURKULUS AND MOUNTAZ RAZACK
- **4:00 PM - 4:15 PM**
IMPACT PROJECTIONS OF AGGREGATE FOOD PRODUCTION SYSTEM AND WATER STRESS ON WATER PRODUCTIVITY IN GCC COUNTRIES: A REVIEW-BASED ANALYSIS
MOHAMED FARIG, MOHAMED DAWOUD AND WALEED ABOU EL HASSAN
- **4:15 PM - 4:30 PM**
ENVIRONMENTAL VALUATION FOR APPRAISING THE ECONOMIC LEVEL OF LEAKAGE IN ARID ENVIRONMENTS: A CASE OF QASSIM, SAUDI ARABIA
HUSNAIN HAIDER
- **4:30 PM - 4:45 PM**
WATER SAVING THROUGH IMPROVED DESIGN OF EVAPORATIVELY COOLING SYSTEM FOR GREENHOUSES IN ARID REGIONS
ILIAS TSAFARAS, JOUKE CAMPEN, FEIJE DE ZWART, WIM VOGT, HESSEL VAN DER HEIDE AND MUIEN QARYOUTI
- **4:45 PM - 5:00 PM**
ENERGY EFFICIENCY MONITORING SYSTEM OF OPERATED IRRIGATION PUMPING STATIONS IN UZBEKISTAN
NAZIR IKRAMOV, FARKHOD KASIMOV AND MEKHRIBONU RAKHIMOVA
- **7:30 PM - 9:30 PM**
DHAW MARINA CRUISE

Tuesday 27 FEBRUARY 2024

- **9:00 AM - 10:30 AM**
T3.2 WATER RESOURCES AND HYDROLOGICAL PROCESSES
CHAIR: PROF. ORLANDO BALDERAMA
SESSION KEYNOTE SPEAKER: PROF. RAO S. GOVINDARAJU
- **9:00 AM - 9:30 AM**
MULTIVARIATE ANALYSIS OF COMPOUND EXTREMES FOR CORRELATED HYDROLOGIC TIME SERIES
SUCHISMITA SUBHADARSINI, NAGESH KUMAR DASIKA AND RAO GOVINDARAJU
- **9:30 AM - 9:45 AM**
MACHINE LEARNING APPROACHES AND HYDROLOGICAL MODELING FOR FLOOD RISK ASSESSMENT
MOHAMED SABER, SAMEH KANTOUSH, TETSUYA SUMI, EMAD MABROUK
- **9:45 AM - 10:00 AM**
RAINFALL HARVESTING PROJECTS IN SUDAN
AHMED ADAM
- **10:00 AM - 10:15 AM**
BUILD A GEOSPATIAL MODEL TO CHARACTERIZE THE CHANGES IN THE YELLOW RIVER DELTA (CHINA) BETWEEN 1996 - 2020 AND PREDICT ITS FUTURE TRAJECTORY
XUN ZHAO AND SALEM ISSA
- **10:15 AM - 10:30 AM**
A NOVEL MACHINE LEARNING APPROACH TO GROUNDWATER MANAGEMENT: UNSUPERVISED TIME-SERIES CLUSTERING FOR AQUIFER DELINEATION
KHALID ELHAJ AND DALAL ALSHAMSI
- **10:30 AM - 10:45 AM**
MORNING TEA BREAK

Tuesday

27 FEBRUARY 2024

- **10:45 AM - 12:15 PM**
T3.3 WATER RESOURCES AND HYDROLOGICAL PROCESSES
CHAIR: PROF. VIJAY P. SINGH
- **10:45 AM - 11:00 AM**
INTEGRATED FLOOD AND WATER RESOURCES MANAGEMENT IN THE ASEAN BASINS: THE CASE OF CAGAYAN RIVER BASIN IN THE PHILIPPINES
ORLANDO BALDERAMA, LANIE ALEJO, GEOFFREY LLOYD BARENG, ARLEN ALEJANDRO, CARLO ABLAN, SAMEH KANTOUSH, TETSUYA SUMI AND DOAN VAN BINHA
- **11:00 AM - 11:15 AM**
ASSESSING THE ROLE OF INCOMPLETE DATA ON HARMFUL ALGAL BLOOM (HAB) PREDICTION MODELS
WIJI ASTUTI AND RAO S. GOVINDARAJU
- **11:15 AM - 11:30 AM**
ADVANCING HYDROLOGICAL DROUGHT PREDICTION IN THE TOPLA RIVER, SLOVAKIA: A DEEP LEARNING APPROACH WITH SMOTE ENHANCEMENT
WAEI ALMIKAEEL, LEA ČUBANOVÁ AND ALEXANDRA VIDOVÁ
- **11:30 AM - 11:45 AM**
EFFICIENCY APPRAISAL OF ADVANCED MACHINE LEARNING ALGORITHMS FOR EVALUATING GROUNDWATER POTENTIAL IN SELECTED COASTAL URBAN CLUSTERS OF SOUTHERN INDIA
JESIYA N P AND GIRISH GOPINATH
- **11:45 AM - 12:00 PM**
EVALUATING THE DROUGHT-MONITORING UTILITY OF SATELLITE-BASED QUANTITATIVE PRECIPITATION ESTIMATION PRODUCTS IN MOROCCO
ABDESSAMAD HADRI, KAOUTAR IAZZA, EL MAHDI EL KHALKI, MARIAME RACH-DANE AND MOHAMED EL MEHDI SAIDI
- **12:00 PM - 12:15 PM**
COMPREHENSIVE EVALUATION OF SATELLITE PRECIPITATION PRODUCTS AND BIAS CORRECTION TECHNIQUES OVER THE WESTERN PART OF SAUDI ARABIA
ALI ALNAHIT, ATEF KAWARA AND IBRAHIM ELSEBAIE
- **12:15 PM - 1:00 PM**
LUNCH

Tuesday 27 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T3.4 WATER RESOURCES AND HYDROLOGICAL PROCESSES
CHAIR: PROF. NADIR AHMED ELAGIB
- **2:00 PM - 2:15 PM**
ASSESSING THE IMPACT OF LONG-TERM DROUGHT ON WATER RESOURCES IN ARID REGIONS UNDER CLIMATE CHANGE CONDITIONS
HANY ABD-ELHAMID, MOHSEN SHERIF, MARTINA ZELENÁKOVÁ, AHMED SEFELNASR, TATIANA SOLÁKOVÁ AND MOHAMED MAHDY
- **2:15 PM - 2:30 PM**
FLOOD INUNDATION MODELLING IN THE NETRAVATI-GURUPURA BASIN: A 2D HEC-RAS APPROACH FOR COMPREHENSIVE MAPPING
RAMESH HONNASIDDAIAH, DEV ANAND THAKUR AND VIJAY SURYAWANSHI
- **2:30 PM - 2:45 PM**
HYDROGEOPHYSICAL STUDIES IN THE UAE: INSIGHTS FROM AL-AIN REGION
HAKIM SAIBI
- **2:45 PM - 3:00 PM**
ASSESSING THE UTILITY OF FLOOD PROTECTION MOBILE INFRASTRUCTURES IN URBAN ENVIRONMENTS DURING EXTREME RUNOFF EVENTS
ELENI TZANOU, ANTONIOS CHATZIGIANNIS AND GEORGIOS TSAKOUMIS
- **3:00 PM - 3:15 PM**
DISTRIBUTED MANNING'S ROUGHNESS APPROACH IN CALIBRATION AND VALIDATION OF 1-D HYDRODYNAMIC MODEL OF LOWER TAPI RIVER, INDIA
SANDIPKUMAR RAJPUT AND PREM LAL PATEL
- **3:15 PM - 3:30 PM**
HYDRO-AGRICULTURAL INNOVATIONS IN THE FERKLA OASES, MOROCCO
YASSINE Khardi, Ali Hammami, Abdelilah Taky, Sami Bouarfa, Guillaume Lacombe and Marcel Kuper
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK

Tuesday 27 FEBRUARY 2024

- **3:45 PM - 5:00 PM**
T3.5 WATER RESOURCES AND HYDROLOGICAL PROCESSES
CHAIR: PROF. MOHAMED SABER
- **3:45 PM - 4:00 PM**
GROUNDWATER RESOURCE ASSESSMENT AND DEVELOPMENT OPPORTUNITIES IN THE MA'AN REGION, SOUTH JORDAN
BRINDHA KARTHIKEYAN, CARINA GREINER, MICHAEL SCHNEIDER, MOHAMMAD ALQADI, SUDEH DEHNAVI, MARWAN AL-RAGGAD AND LARS RIBBE
- **4:00 PM - 4:15 PM**
STUDYING THE RELATIONSHIP BETWEEN SATELLITE DERIVED EVAPOTRANSPIRATION AND CROP YIELD: A CASE STUDY OF CAUVERY RIVER BASIN
ANISH ANAND, VENKATA REDDY KEESARA AND VENKATARAMANA SRIDHAR
- **4:15 PM - 4:30 PM**
MONITORING OF SATELLITE-DERIVED CHL-A AND SSHA FOR THE SEA WATERS OF THE WESTERN ARABIAN SEA AND THE PERSIAN GULF AROUND THE ARID LAND COUNTRIES DURING 2018-2022
FAISAL AHMED KHAN, MENGMENG YANG AND TARIQ MASOOD ALI KHAN
- **4:30 PM - 4:45 PM**
USING ISOTOPIC AND CHEMICAL TRACERS TO INVESTIGATE GROUNDWATER RESIDENCE TIME AND RECHARGE MECHANISMS IN A SEMI-ARID CLIMATE: INSIGHTS FROM NORTHERN MOROCCO
MOHAMMED HSSAISOUNE, LHOUSSAINE BOUCHAOU, MOHAMED QURTOBI AND YASSINE AIT BRAHIM
- **4:45 PM - 5:00 PM**
COMPUTATION OF VERTICAL FLOWS FOR GROUNDWATER MODELLING IN MULTI-AQUIFER SETUP
HEMA VANAR AND PRADEEP MAJUMDAR
- **7:30 PM - 9:30 PM**
DHAW MARINA CRUISE

**WEDNESDAY
28 FEBRUARY 2024**

2nd INTERNATIONAL CONFERENCE
**WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS**

WEDNESDAY

28 FEBRUARY 2024

● 9:00 AM - 10:30 AM

T3.6 WATER RESOURCES AND HYDROLOGICAL PROCESSES

CHAIR: PROF. GUIDO D'URSO

● 9:00 AM - 9:15 AM

SUSTAINABLE WATER RESOURCES MANAGEMENT IN A COASTAL AQUIFER IN ARID CONDITIONS: CASE STUDY FROM SOUTHWEST SAUDI ARABIA

MILAD H. Z. MASOUD, KARTHIKEYAN BRINDHA, MICHAEL SCHNEIDER, JALAL BASAHI, ABDULAZIZ ALQARAW AND BURHAN NIYAZI

● 9:15 AM - 9:30 AM

FLASH FOOD FORECASTING AND RISK ASSESSMENT USING HYDROLOGICAL MODELS, REMOTE SENSING AND ADVANCED GIS TECHNIQUES, A CASE STUDY: MEKERRA BASIN, ALGERIA

YACINE ABDELBASET BERREZEL, CHERIFA ABDELBAKI, MOHAMED SABER, SAMEH AHMED KANTOUSH, TETSUYA SUMI AND KENSUKE NAITO

● 9:30 AM - 9:45 AM

BRIDGING THE WATERS OF TIME: INTEGRATING TRADITIONAL WATER MANAGEMENT IN SEMI-ARID REGIONS - CASE STUDY OF JAIPUR, INDIA

KANIKA BIMRAH AND IZURU SAIZEN

● 9:45 AM - 10:00 AM

EVALUATING PLANETSCOPE AND SENTINEL-2 DATA IN REPRESENTING CHANGES IN LAND USE AND LAND COVER IN AN ARID, UNGAUGED WATERSHED

MOHAMED HAMOUDA, GILBERT HINGE AND CHITHRIKA ALAWATHUGODA

● 10:00 AM - 10:15 AM

DELINEATION OF GROUNDWATER RECHARGE POTENTIAL ZONES USING GIS AND AHP APPROACHES (CASE STUDY: YALAMLAM AREA, SAUDI ARABIA)

IBRAHIM ELSEBAIE, ATEF KAWARA AND ALI ALNAHIT

● 10:15 AM - 10:30 AM

DROUGHT CHARACTERIZATION USING METEOROLOGICAL DROUGHT INDICES FOR ARID REGIONS IN INDIA

SIDDHANT PANIGRAHI AND VIKAS KUMAR VIDYARTHI

● 10:30 AM - 10:45 AM

MORNING TEA BREAK

WEDNESDAY

28 FEBRUARY 2024

10:45 AM - 12:15 PM

T2.3 CLIMATE CHANGE AND WATER RESOURCES RESILIENCE

CHAIR: PROF. DAVE WHITE

10:45 AM - 11:00 AM

THE 3RD PHASE OF SEAWATER INTRUSION IN COASTAL AQUIFERS

EKKEHARD HOLZBECHER

11:00 AM - 11:15 AM

DRIVERS OF ENVIRONMENTAL FRAGILITY IN THE SAHEL: WHAT IMPLICATIONS FOR COMMUNITY LIVELIHOODS?

NYONG PRINCELY AWAZI

11:15 AM - 11:30 AM

RISK ASSESSMENT ANALYSIS RELATED TO MANAGED AQUIFER RECHARGE (RYE ISLAND PILOT AREA, SLOVAKIA)

ANDREJ ŠOLTÉSZ, MICHAELA ČERVEŇANSKÁ, DANA BAROKOVÁ, ANDREA VRANOVSKÁ AND JAKUB MYDLA

11:30 AM - 11:45 AM

PREDICTION OF NEXT-DAY RAIN USING RANDOM FOREST

MOHAMMED SHARIF

11:45 AM - 12:00 PM

CLIMATE EXPOSURE AND ADAPTIVE MANAGEMENT OPPORTUNITIES FOR AGRICULTURE IN THE SOUTHWESTERN UNITED STATES

LAUREN PARKER, NING ZHANG, JOHN ABATZOGLOU, ISAYA KISEKKA, ANDREW MCELDRONE AND STEVEN OSTOJA

12:00 PM - 12:15 AM

ADAPTATION STRATEGIES FOR WATER MANAGEMENT IN A TANK SYSTEM OF SEMI-ARID REGION UNDER CHANGING CLIMATE

SRI LAKSHMI SESHU VANI JAYANTHI, VENKATA REDDY KEESARA AND VENKATARAMANA SRIDHAR

12:15 PM - 1:00 PM

LUNCH

WEDNESDAY

28 FEBRUARY 2024

● 2:00 PM - 3:15 PM

T2.4 CLIMATE CHANGE AND WATER RESOURCES RESILIENCE

CHAIR: PROF. ANVAR KACIMOV

● 2:00 PM - 2:15 PM

COMBINING MULTI-ISOTOPE TRACING WITH ORGANIC COMPOUNDS TO IMPROVE POLLUTION-SOURCES TRACKING OF GROUNDWATER IN SEMI-ARID AND ARID REGIONS OF THE MEDITERRANEAN, IMPACT ON AQUIFER MANAGEMENT STRATEGIES

FREDERIC HUNEAU

● 2:15 PM - 2:30 PM

GARONNE RIVER BEHAVIOR UNDER CLIMATE CHANGE AND THE ROLE OF ITS SURROUNDING ALLUVIAL AQUIFER FOR POTENTIAL ADAPTATION

NAZEER ASMAEL, ALAIN DUPUY AND JEAN-FRANÇOIS BERTHOUMIEU

● 2:30 PM - 2:45 PM

PRECIPITATION IN THE DESERT: RISING TO THE CHALLENGE OF PROBABLE MAXIMUM PRECIPITATION ESTIMATION UNDER CLIMATE CHANGE

CARLA GUZMAN AND DESANA STAMBUK

● 2:45 PM - 3:00 PM

RISKS, EXTERNALITIES, AND ADAPTIVE MANAGEMENT TO WATER RESOURCES SCARCITY IN AFRICA'S SAHEL REGION

NYONG PRINCELY AWAZI

● 3:00 PM - 3:15 PM

SCREENING OF SUNFLOWER GENOTYPES FOR MOISTURE STRESS TOLERANCE USING PHYSIOLOGICAL PARAMETERS FOR SUSTAINABLE PRODUCTION OF EDIBLE OILS IN RAINFED ECOSYSTEM

VIKAS KULKARNI, M. R. UMESH, T. C. SUMA, G.Y. LOKESHA AND B.V. TEMBURNE

● 3:30 PM - 3:45 PM

AFTERNOON TEA BREAK

● 4:00 PM - 5:00 PM

CONCLUDING REMARKS - AWARDS - RECOMMENDATIONS
CLOSING CEREMONY, ZABEEL BALLROOM

● 6:00 PM - 10:00 PM

FREE TOUR

WEDNESDAY 28 FEBRUARY 2024

- **9:00 AM - 10:30 AM**
T6.3 WATER RESOURCES SUSTAINABILITY
CHAIR: PROF. EMAD HABIB
- **9:00 AM - 9:15 AM**
A GROUNDWATER FLOW MODELING STUDY TO CONSERVE THE AZRAQ WETLAND RESERVE (JORDAN) ECOSYSTEM
BERKER BAYIRTEPE, ALPER ELÇI, ALSHARIFA HIND MOHAMMAD, KHALDOUN SHATANAWI, QAMAR AL-MIMI AND HAZEM KHREISHA
- **9:15 AM - 9:30 AM**
ASSESSING ECOLOGICAL QUALITY FOR TRANSITIONAL AND COASTAL WATERS WHILE ACCOUNTING FOR UNCERTAINTY
ROKO ANDRICEVIC
- **9:30 AM - 9:45 AM**
DETECTING GROUNDWATER RECHARGE ZONES BY ANALYZING SATELLITE IMAGES, EXAMPLES FROM NORTHERN OMAN
AHMED HADIDI, HUMAID AL BADI AND EKKEHARD HOLZBECHER
- **9:45 AM - 10:00 AM**
SUBMARINE GROUNDWATER DISCHARGE (SGD) ALONG THE DROUGHT PRONE COASTAL ANDHRA PRADESH, INDIA ADOPTING THREE-TIER VALIDATION: A PRELIMINARY STUDY
JANARDHANA RAJU NANDIMANDALAM
- **10:00 AM - 10:15 AM**
WATER RESOURCES, GEOLOGY AND URBANIZATION ARE IN A DIRECT DISCIPLINE: THE CASE STUDY OF JORDAN
TALEB ODEH, ALSHARIFA HIND MOHAMMAD, FATEN ALSLATY AND TINO RÖDIGER
- **10:15 AM - 10:30 AM**
STUDY OF FEASIBILITY AND SCOPE OF MANAGED AQUIFER RECHARGE (MAR) FOR GROUNDWATER AUGMENTATION IN NCT, DELHI
GOPAL KRISHAN AND NARAYAN C GHOSH
- **10:30 AM - 10:45 AM**
MORNING TEA BREAK

WEDNESDAY 28 FEBRUARY 2024

- **10:45 AM - 12:15 PM**
T6.4 WATER RESOURCES SUSTAINABILITY
CHAIR: PROF. DALAL ALSHAMSI
- **10:45 AM - 11:00 AM**
THE GLOBAL DIMENSION OF NATIONAL WATER RESOURCE MANAGEMENT THROUGH WATER-FOOD NEXUS
AMIN ELSHORBAGY, YOSHIHIDE WADA AND AHMED ABDELKADER
- **11:00 AM - 11:15 AM**
WATER SAVING PRODUCTION STRATEGIES TO TRANSPLANTED RICE: EXPERIENCES FROM TUNGABHADRA IRRIGATION COMMAND OF KARNATAKA STATE, INDIA
SREENIVAS A.G., M.R. UMESH, S. SUDHARANI, B.K. DESAI AND SATYANARAYANA RAO
- **11:15 AM - 11:30 AM**
VALIDATING THE INFLUENCE OF FEED WATER TEMPERATURE ON REVERSE OSMOSIS PERFORMANCE IN A BOREHOLE WATER DESALINATION PLANT: A COMPARATIVE NUMERICAL AND EXPERIMENTAL STUDY
OMKALTOUME EL FATNI, ABDERRAHIM MAFTOUH, TARIK BAHAJ AND ILIAS KACIMI
- **11:30 AM - 11:45 AM**
WATER PRODUCTIVITY AND SUSTAINABLE USE IN HYDROPONIC FARMING IN THE UAE
BERHANU A. DEGEFA AND ELKE NEUMANN
- **11:45 AM - 12:00 PM**
SEBOU WATER FUND: A MODEL FOR WATER SECURITY AND SUSTAINABILITY IN MOROCCO'S SEBOU BASIN
OUSSAMA BELLOULID, YOUSRA MADANI AND MEHDI AIT LACHGUER
- **12:00 PM - 12:15 PM**
INTEGRATED AND TAILORED SOLUTIONS TO ENSURE SAFE AND ACCESSIBLE WATER FOR THE SOUTHERN MEDITERRANEAN COUNTRIES IN A CONTEXT OF CLIMATE CHANGE AND RESOURCE DEPLETION
HAJER ENNOURI, FATMA AROUS, KHADIJA KRAIEM, MARWA MEKNI, SAFA EL TOUMI AND ATEF JAOUANI
- **12:15 PM - 1:00 PM**
LUNCH

WEDNESDAY

28 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T1.2 SOCIO-ECONOMIC WATER STUDIES
CHAIR: PROF. ERINA IWASAKI
- **2:00 PM - 2:15 PM**
HOW CAN WATER RESOURCES BE USED ECONOMICALLY FOR AGRO-IRRIGATION IN WATER-LIMITED REGIONS? : EXAMPLE OF SEMI-ARID KONYA ECOLOGY, TURKEY
BILAL ACAR AND YASEMIN DEMIR YURTERI
- **2:15 PM - 2:30 PM**
FARMERS' BEHAVIOR INVESTIGATION TOWARDS PARTICIPATORY GROUNDWATER MANAGEMENT POLICIES IN ARID REGIONS: CASE STUDY FROM AL-HAOUZ MEJJATE AQUIFER IN MOROCCO
RACHIDA EL MANSOUM, TARIK CHFADI AND RODNEY SMITH
- **2:30 PM - 2:45 PM**
LOCAL ENHANCED MANAGEMENT OF WATER RESOURCE IN KANSAS
JONATHAN AGUILAR, BILL GOLDEN AND SUSAN METZGER
- **2:45 PM - 3:00 PM**
THE EFFECT OF ORIFICE SIZE AND RETENTION TIME OF LOCAL TANK ON WATER DISTRIBUTION NETWORK
SYED RIZVI AND RABEE RUSTUM
- **3:00 PM - 3:15 PM**
NAVIGATING FARMERS PERCEPTION AND ADAPTIVE STRATEGIES TO WATER SALINITY AND SCARCITY IN MOROCCO: IN DEPTH SOCIOECONOMIC INTERVIEW ANALYSIS
AMINA BOUYMAJJANE, ABZETTA SANA AND TARIK CHFADI
- **3:15 PM - 3:30 PM**
WATER REUSE IN ALGERIAN OASIS REGION: INSTITUTIONAL MANAGEMENT BOTTLENECKS AND DEMONSTRATION OF OPERATIONAL FEASIBILITY
SARA BEKADDOUR, TARIK HARTANI, PIERRE-LOUIS MAYAUX AND NASSIM AIT MOUHEB
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK
- **4:00 PM - 5:00 PM**
CONCLUDING REMARKS - AWARDS - RECOMMENDATIONS - CLOSING CEREMONY, ZABEEL BALLROOM
- **6:00 PM - 10:00 PM**
FREE TOUR

WEDNESDAY 28 FEBRUARY 2024

- **9:00 AM - 10:30 AM**
T5.6 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT
CHAIR: PROF. SYED JAVAID ZAIDI
SESSION KEYNOTE SPEAKER: PROF. MOHAMED DAWOUD
- **9:00 AM - 9:30 AM**
THE ROLE OF INNOVATION IN THE GROWTH OF DESALINATION IN THE GCC COUNTRIES
MOHAMED DAWOUD
- **9:30 AM - 9:45 AM**
WATER & ENERGY HYBRIDIZED INTEGRATED PRODUCTION PROCESSES
MOHAMMED AL-SOFI
- **9:45 AM - 10:00 AM**
BIODESALINATION OF SEAWATER AND CO2 BIOFIXATION USING MICROALGAE AS AN ENVIRONMENTALLY FRIENDLY DESALINATION TECHNOLOGY
AMIN ESMAEILI, NADA ABOUZEINEH, ALYA HAJ ALI, FAISAL ALQAHTANI, MANAR ALABOUD, HAYAM AHMED AND SHIMAA GHAKARI
- **10:00 AM - 10:15 AM**
UTILIZING CARBON FIBER WASTE IN BRINE DESALINATION AND CO2 CAPTURE THROUGH THERMAL AND CHEMICAL ACTIVATION PROCESS
FATEMEH BHAHAEDDIN, SALEM AL ZAHMI AND AMEERA MOHAMMAD
- **10:15 AM - 10:30 AM**
BIPOLAR MEMBRANE ELECTRODIALYSIS: A CASE STUDY IN THE VALORIZATION OF INDUSTRIAL WASTE
JAWAD MUSTAFA, NAYEF GHASEM, MUFTAH H-EL NAAS, BART VAN DER BRUGGEN AND ALI AL MARZOUQI
- **10:30 AM - 10:45 AM**
MORNING TEA BREAK

WEDNESDAY 28 FEBRUARY 2024

- **10:45 AM - 12:00 PM**
T5.7 NON-CONVENTIONAL WATER RESOURCES AND WATER QUALITY MANAGEMENT
CHAIR: PROF. MOHAMED DAWOUD
- **10:45 AM - 11:00 AM**
ASSESSING SALINITY CHALLENGES OF IRRIGATED AGRICULTURE IN THE CENTRAL VALLEY: AN INTEGRATED MODEL FOR CROP YIELD AND PROFIT OPTIMIZATION IN ARID REGIONS
FLOYID NICOLAS AND ISAYA KISEKKA
- **11:00 AM - 11:15 AM**
A META-DATA ANALYSIS OF THE TYPES AND CONCENTRATIONS OF STORMWATER POLLUTANTS IN ARID REGIONS
FAIZ ANWAR, HILAL EL-HASSAN AND MOHAMED HAMOUDA
- **11:15 AM - 11:30 AM**
CERAMIC MEMBRANE FILTRATION OF CARWASH WASTEWATER SAMPLE FROM AL-AIN CITY, UNITED ARAB EMIRATES
HAKIM SAIBI, NOUF ALBLOOSHI, AMIRA ALNAQBI, SHAMMA ALZAABI, RAUDA ALMAZROUEI, FIDHA ISMAIL, NAKAMURA ARATA AND KAWAMURA KAZUYUKI
- **11:30 AM - 11:45 AM**
EFFICIENCY ENHANCEMENT OF ELECTROCOAGULATION TREATMENT OF CATIONIC DYE USING RAW BENTONITE CLAY
MANISHA KOTHARI, KINJAL VEGAD, KOSHA SHAH AND ASHRAF ALY HASSAN
- **11:45 PM - 12:00 PM**
GREY WATER AS A POTENTIAL, ENERGY EFFICIENT SOLUTION FOR DIVERSE WATER REQUIREMENTS OF THE UAE: INSIGHTS FROM RESEARCH INVOLVING GREY WATER FOR IRRIGATING SELECTED FODDER CROPS OF THE UAE
YASMIN SHAMEEM AND TAOUFIK KSIKSI
- **12:00 PM - 1:00 PM**
LUNCH

WEDNESDAY

28 FEBRUARY 2024

- **2:00 PM - 3:30 PM**
T4.3 ADVANCED TECHNOLOGIES IN WATER RESOURCES MANAGEMENT
CHAIR: PROF. LHOUSSAINE BOUCHAOU
- **2:00 PM - 2:15 PM**
CAN MPB SYSTEM PROTECT GROUNDWATER FROM SEAWATER INTRUSION IN HETEROGENEOUS COASTAL AQUIFERS?
ANTOIFI ABDOULHALIK, ASHRAF AHMED AND ISMAIL ABD-ELATY
- **2:15 PM - 2:30 PM**
WATER RESOURCES MANAGEMENT: THE POTENTIAL OF UNDERGROUND STORAGE TO SUSTAIN FUTURE WATER SUPPLY
MOHAMED ELFLEET
- **2:30 PM - 2:45 PM**
WATER DEMAND FORECAST USING MACHINE LEARNING
WALEED EL DAMATY, MOHAMMED ABDALLAH AND KHALID AL ZAABI
- **2:45 PM - 3:00 PM**
MANAGED AQUIFER RECHARGE (MAR) ON THE RYE ISLAND, SLOVAKIA
MICHAELA ČERVEŇANSKÁ, JAKUB MYDLA, ANDREJ ŠOLTÉSZ AND ANDREA VRANOVSKÁ
- **3:00 PM - 3:15 PM**
AQUIFER RECHARGE TECHNIQUE: AN APPLIED SOLUTION TO IMPROVE GROUNDWATER CONDITIONS IN CLIMATE VULNERABLE DROUGHT PRONE AREAS OF BANGLADESH
MD TORIQUIL ISLAM AND ASIB AHMED
- **3:15 PM - 3:30 PM**
EXPLORING THE EVOLUTION OF INLAND WATER BODIES IN THE UAE (1972-2021) THROUGH REMOTE SENSING AND GIS ANALYSIS
MUBBASHRA SULTAN AND SALEM ISSA
- **3:30 PM - 3:45 PM**
AFTERNOON TEA BREAK
- **4:00 PM - 5:00 PM**
CONCLUDING REMARKS - AWARDS - RECOMMENDATIONS - CLOSING CEREMONY, ZABEEL BALLROOM
- **6:00 PM - 10:00 PM**
FREE TOUR

POSTER SESSION

2nd INTERNATIONAL CONFERENCE
WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS

MONDAY

26 FEBRUARY 2024

POSTER SESSION 1 (T1 & T2) - ZABEEL BALLROOM FUNCTION AREA

CHAIR PROF. CHÉRIFA ABDELBAKI & PROF. TARIK CHFADI

1:00 PM - 2:00 PM

- **EVALUATION OF URANIUM ISOTOPES DISTRIBUTION IN GROUNDWATER OF THE UAE**
KHALID ELHAJ, ALAA AHMED, DALAL ALSHAMS, SABER HUSSEIN, AHMED MURAD, AHMED SEFELNASR, ABDEL AZIM EBRAHEEM, XIAOLIN HOU AND ALA ALDAHAN
- **CLIMATE CHANGE-INDUCED VARIATIONS IN HYDROLOGICAL CHARACTERISTICS OF GROUNDWATER IN AL-BAHA, SAUDI ARABIA: IMPLICATIONS FOR DRINKING AND IRRIGATION USE**
ABDULAZIZ G. ALGHAMDI, ANWAR A. ALY AND HESHAM M. IBRAHIM
- **COMMUNITY AND STAKEHOLDER ENGAGEMENT IN WATER RESOURCES MANAGEMENT IN THE SAHEL: IMPLICATIONS FOR WATER RESOURCES SUSTAINABILITY**
NYONG PRINCELY AWAZI
- **THE CHALLENGES OF WATER MANAGEMENT IN THE CANARY ISLANDS (SPAIN)**
JUAN C. SANTAMARTA, NOELIA CRUZ-PÉREZ, JOSELÍN S. RODRÍGUEZ-ALCÁNTARA, JESICA RODRÍGUEZ-MARTÍN, MIGUEL ÁNGEL MARAZUELA AND ALEJANDRO GARCÍA-GIL
- **ASSESSING CLIMATE CHANGE IMPACTS ON AGRICULTURAL WATER MANAGEMENT IN THE SOUSS BASIN-MOROCCO USING MODSIM: A DECISION SUPPORT SYSTEM APPROACH**
OUMAIMA ATTAR, YOUSSEF BROUZIYNE, LHOSSAINE BOUCHAOU, ABDELGHANI CHEHBOUNI AND YASSINE AIT BRAHIM
- **PROTECTING WATER RESOURCES BY FERTILIZER MANAGEMENT - THE ROLE OF NANOFERTILIZERS**
RAQUEL SARAIVA, GONÇALO C. RODRIGUES, QUIRINA FERREIRA AND MARGARIDA CORREIA DE OLIVEIRA
- **THE SPATIO-TEMPORAL EXTENT OF WETLANDS OVER THE HIGH-ATLAS MOUNTAINS: GROUNDWATER RECHARGE AND IMPLICATIONS ON CURRENT AND FUTURE WATER RESOURCES IN NORTHWEST AFRICA**
HAMZA BERROUCH, YASSINE AIT BRAHIM, NADIA RHOJJATI, MOHAMMED HSSAISOUNE AND LHOSSAINE BOUCHAOU
- **RESILIENCE OF SEAWATER INTRUSION MITIGATION MEASURES UNDER THE EFFECT OF CLIMATE CHANGE**
ASSAAD KASSEM, AHMED SEFELNASR, MOHSEN SHERIF AND FAISAL BAIG
- **SPATIAL DISTRIBUTION OF DRINKING & IRRIGATION WATER QUALITY INDICES IN THE JHELMUM RIVER, AZAD JAMMU & KASHMIR AND NORTHERN PUNJAB, PAKISTAN**
TOFEEQ AHMAD, MUHAMMAD UMAR, SAID MUHAMMAD, MUHAMMAD USMAN AZHAR AND ALAA AHMED

MONDAY

26 FEBRUARY 2024

POSTER SESSION 1 (T1 & T2) - ZABEEL BALLROOM FUNCTION AREA

CHAIR PROF. CHÉRIFA ABDELBAKI & PROF. TARIK CHFADI

1:00 PM - 2:00 PM

- **LARGE-SCALE CLIMATE INDICES, CLIMATE AND ENVIRONMENTAL EXTREMES, A NEW CLIMATE INDEX FOR THE NORTH AFRICA**
YOUNES TEBBAAI AND KENZA KHOMSI
- **ANALYZING TEMPORAL AND SPATIAL FLUCTUATIONS IN GROUNDWATER STORAGE FOR SUSTAINABLE GROUNDWATER MANAGEMENT IN FUJAIRAH EMIRATE**
ABDEL AZIM EBRAHEEM, SHAHER BANO MIRZA, FOUAD RIDOUANE, AHMED SEFELNASR, DALAL AL SHAMSI, MOHSEN SHERIF, ASSAAD KASSEM, FAISAL BAIG AND MANEUVER AHMED
- **PUNCTUAL MONITORING OF FLOWS IN THE OUED EL ABID WATERSHED UPSTREAM OF THE BIN EL OUIDANE DAM: CONTRIBUTION TO THE CREATION OF THE 2020-2021 RATING CURVE**
KHOULDIA NAFIA
- **A PRELIMINARY INVESTIGATION OF NATIONAL SPATIAL PLANNING IN YILAN COUNTY OF TAIWAN IN THE CONTEXT OF EXTREME RAINFALL UNDER CLIMATE CHANGE: AN EXAMPLE OF AGRICULTURAL DEVELOPMENT ZONES**
MO HSIUNG CHUANG, KUO CHEN MA, BO WEI HE, CHUN FANG LIU AND ZIH YI ZHAN
- **PARTICIPATORY IMPACT ASSESSMENT OF WATER AND SOIL CONSERVATION POLICY IN SOUTH-EAST OF TUNISIA OUM ZEZZAR WATERSHED: MÉDENINE**
RIADH BECHIR, NEDIA OUNALLI AND MOHAMED JAOUED
- **CLIMATE CHANGE DETECTION IN THE GURUPURA RIVER BASIN, INDIA: THE ROLE OF ETCCDI INDICES**
VAMSHI KRISHNA AND K. VARIJA
- **INDICATORS OF CLIMATE CHANGE IN THE UPPER FARIA SUB-CATCHMENT (NORTHERN PALESTINE)**
HAMZAH FAQUSEH, SAMEER SHADEED AND GIOVANNA GROSSI
- **MULTIPLE APPROACHES TO SUSTAIN OGALLALA AQUIFER IN THE SOUTHERN HIGH PLAINS OF USA**
SANGAMESH ANGADI, SULTAN BEGNA, PARAMVEER SINGH, JAGDEEP SINGH, RAJAN GHIMIRE, JOHN IDOWU, RAM ACHARYA AND GURU YADAHALLI
- **ASSESSMENT OF ABATTOIR WASTEWATER ON QUALITY OF BOREHOLE WATER SOURCE**
EBERECHI CECILIA OSUAGWU, ANGELA TOCHUKWU OKAFOR AND ADAMMA MONICA UWAGA
- **KNN CLUSTERING ANALYSIS FOR URBAN FARMING EQUITY: TAIPEI GARDEN CITY PROGRAM UNDER THE MICROSCOPE**
WEI-CHUN CHUANG, WEN-RAY SU, WAN-YU SHIH AND CHING-PIN TUNG
- **ISOTOPE HYDROLOGY TO INVESTIGATE THE RESILIENCE TO CLIMATE CHANGE OF THE SHALLOW QUATERNARY AQUIFER IN THE LAKE CHAD BASIN**
FREDERIC HUNEAU AND ABDALLAH MAHAMAT NOUR

TUESDAY

27 FEBRUARY 2024

POSTER SESSION 2 (T3 & T4) - ZABEEL BALLROOM FUNCTION AREA

CHAIR: PROF. HAKIM SAIBI & DR. AMJAD ALIEWI

1:00 PM - 2:00 PM

A COMPARATIVE ANALYSIS OF LSTM-BASED NETWORKS FOR RIVER STREAMFLOW TIME-SERIES FORECASTING

ANTOIFI ABDLOHALIK AND ASHRAF AHMED

MODELING FLASH FLOODS AND GROUNDWATER RECHARGE IN DJIBOUTI'S AMBOULI WATERSHED

HIROYUKI TOSAKA, AURELIEN HAZART, TORU YORITATE, SERGIO AZAEL MAY CUEVAS, TAKAFUMI YOSHIDA, TOSHIKI OKAMOTO, HARUKA SHIBATA AND SAWAHIKO SHIMADA

WATER RESOURCES, USES AND ITS INTEGRATED MANAGEMENT

CHANDAN KUMAR AND H.R. SHWETHA

FLOOD MAPPING AND ASSESSMENT OF PRECIPITATION USING SENTINEL-1A SAR DATA ON PHYTHON, AP, INDIA: ENVIRONMENTAL SUSTAINABILITY

JAYARAJU NDIMIKERI AND KIRAN DASARI

MODELING OF SPATIOTEMPORAL VARIATIONS OF GROUNDWATER LEVELS WITH THE AID OF GIS, CASE STUDY FROM EMIRATE OF ABU DHABI

TALA MAKSOUH AND MOHAMED MOHAMED

STABLE ISOTOPES DISTRIBUTION IN GROUNDWATER OF THE UAE

ALAA AHMED, KHALID ELHAJ, DALAL ALSHAMSI, SABIR HUSSEIN, AHMED MURAD, AHMED SEFELNASR, ABDEL AZIM EBRAHEEM AND ALA ALDAHAN

SATELLITE BASED ASSESSMENT OF EXTREME PRECIPITATION EVENTS IN A SEMI-ARID REGION

WIAM SALIH

HYDROMETEOROLOGICAL ANALYSIS OF FLOODING EVENT IN FUJAIRAH EMIRATE

AHMAD ALBREIKI, KHALID HUSSEIN AND TAREEFA ALSUMAITI

ASSESSMENT OF SELECTED METEOROLOGICAL INDICES FOR DROUGHT MONITORING IN DIFFERENT CLIMATIC ZONES OF MOROCCO

ANAS OUBAHA, VICTOR ONGOMA, BOUCHRA AIT HSSAINE, LHOUSAINE BOUCHAOU AND ABDELGHANI CHEHBOUNI

A HISTORICAL RAINFALL DATABASE FOR SAUDI ARABIA: AN OVERVIEW AND A QUALITY CONTROL PROCESS

ALI ALNAHIT, FAHAD ALDRAIHEM AND ABDULAZIZ ALBARRAK

GIS-INTEGRATED HYDROLOGICAL MODELING FOR SUSTAINABLE GROUNDWATER MANAGEMENT: QATAR CASE STUDY

ADEL ZGHIBI, SARRA AOUI, KHAWAR NAEEM, ADEL ELOMRI AND ANNAMARIA MAZZONI

OPTIMIZATION AND SIMULATION MODEL OF THE EXPERT CONTROL SYSTEM FOR NAVIGATION OPERATION OF GABČÍKOVO WATER STRUCTURE

L'UDOVÍT MOŽIEŠIK, PETER ŠULEK AND MARTIN ORFÁNUS

TUESDAY

27 FEBRUARY 2024

POSTER SESSION 2 (T3 & T4) - ZABEEL BALLROOM FUNCTION AREA
CHAIR PROF. HAKIM SAIBI & DR. AMJAD ALIEWI

1:00 PM - 2:00 PM

- **FLOOD RISK ASSESSMENT USING RAINFALL RUNOFF INUNDATION MODEL AND ANALYTICAL HIERARCHY PROCESS METHOD: CASE STUDY OF RIVER MPANGA -UGANDA**
BETTY NAMUGENYI, HADIR ABDELMONEIM, AHMED SAMEH KANTOUSH, MOHAMED SABER AND CHERIFA ABDELBAKI
- **COMPARATIVE ADVANTAGES OF UAV, AIRCRAFT, AND SATELLITE-BASED REMOTE SENSING FOR CROP CANOPY TEMPERATURE AND CROP HEALTH MAPPING**
MANOJ GADHWAL AND AJAY SHARDA
- **ARTIFICIAL GROUNDWATER RECHARGE IN THE KINGDOM OF SPAIN. ANALYSIS OF SUITABILITY AND IDENTIFICATION OF OPTIMAL PLACES TO PROPOSE ITS APPLICATION IN THE FACE OF THE EFFECT OF CLIMATE CHANGE**
JOSE MANUEL MURILLO AND ALBERTO PADILLA
- **ASSESSING URBAN RUNOFF USING INTEGRATED FRAMEWORK OF REMOTE SENSING, GIS, AND FUZZY LOGIC**
ASHISH DOBHAL AND ASHOK K. KESHARI
- **DROUGHT RESILIENT GROUNDWATER SYSTEMS: EVIDENCE FROM SEMI-ARID AREAS OF NORTHERN ETHIOPIA**
KIFLE WOLDEAREGAY, FRANK VAN STEENBERGEN, RUDI HESSEL AND LUUK FLESKENS
- **INTEGRATION OF REMOTE SENSING DATA AND ARTIFICIAL NEURAL NETWORKS FOR LAND USE AND LAND COVER CHANGE PROJECTIONS IN A SEMI-ARID REGION IN INDIA**
VIKAS KUMAR VIDYARTHI AND GOPESHWAR SAHU
- **CONTRASTING MACHINE LEARNING APPROACHES FOR RAINFALL PREDICTION IN A DESERT LOCALE**
FAISAL BAIG, MOHSEN SHERIF, AHMED SEFELNASR AND ASSAAD HASSAN KASSEM
- **SPATIOTEMPORAL ANALYSIS OF EVENT-BASED PRECIPITATION IN SINAI, EGYPT**
MOHAMED ELKOLLALY, TAMER A. GADO, HEWIDA OMARA, MOSTAFA A. ELSAWWAF, AHMED SEFELNASR AND MOHSEN SHERIF
- **ON THE USE OF MACHINE LEARNING IN MAPPING FLOOD RISK: CASE OF THE ANNABA CITY, NORTH-EASTERN ALGERIA**
SABRI DAIRI, ELHADI MECHENTEL, YASSINE DJEBBAR AND HABIB ABIDA
- **TRADITIONAL WATER HARVESTING AND AQUIFERS IN TELANGANA'S SEMI-ARID REGION**
FATIMA AFREEN, ANUSHA ARPULA AND ASIF ALI
- **UTILIZING REMOTE SENSING AND GIS-BASED HYDROLOGICAL MODELING TO ASSESS FLASH FLOOD SUSCEPTIBILITY IN FUJAIRAH EMIRATE AND DEVELOP MITIGATION STRATEGIES**
AHMED SEFELNASR, FOUAD RIDOUANE, SHAHER BANO MIRZA, MOHSEN SHERIF, DALAL ALSHAMSI AND ABDEL AZIM EBRAHEEM

WEDNESDAY

28 FEBRUARY 2024

POSTER SESSION 3 (T5 & T6) - ZABEEL BALLROOM FUNCTION AREA
CHAIR PROF. AHMED HADIDI & PROF. EFREN DELGADO

1:00 PM - 2:00 PM

PROPOSAL FOR NATURE-BASED SOLUTIONS AND ARTIFICIAL AQUIFER RECHARGE AS MEASURES FOR IMPROVING WATER MANAGEMENT ON THE ISLAND OF FUERTEVENTURA (CANARY ISLANDS, SPAIN)

JUAN C. SANTAMARTA, NOELIA CRUZ-PÉREZ, JOSELIN S. RODRÍGUEZ-ALCÁNTARA, JESICA RODRÍGUEZ-MARTÍN, MIGUEL ÁNGEL MARAZUELA AND ALEJANDRO GARCÍA-GIL

DYNAMIC SIMULATION OF MUNICIPAL WASTEWATER ACTIVATED SLUDGE PROCESS BY APPLICATION OF ASM1: CASE OF MAGHNA REGION, NORTH-WEST OF ALGERIA

SIDI MOHAMED TIAR, CHERIFA ABDELBAKI, MADANI BESSEDIK, ABDERRAHIM BADRAOUI AND NADIA BADR

DUAL USE OF IODIDE FOR INSTANT DETECTION AND EFFECTIVE REMOVAL OF HYPOCHLORITE FROM SANITIZED WATER

ZAINA KADOURA, HIND ZEIDAN, ALAA ABDELHAMID, MARIAM YOUNES, LEEN EL SROUJI AND SABER ABDELBAKI

MAPPING OF GREEN SPACES AND FLOOD RISK MANAGEMENT IN THE AIN TEMOUCHENT REGION (ALGERIA)

MOSTAFIA BOUGHALEM-KASMI, MOURAD ARABI, ABDOULKADRI TOURE, KHADIDJIA BOUKAROUBA AND FARIDA OUZAL

INDUSTRIAL TREATED WASTEWATER REUSE IN AGRICULTURE AND INDUSTRY. PERFORMANCE AND SUSTAINABILITY ANALYSIS OF TREATMENT PROCESSES BY LIFE CYCLE ASSESSMENT

MALIKA GHAZI, FRANCESC HERNANDEZ, RAJA BEN AMAR, SUHEYDA ATALAY, ZORA ELBERRICHI, JOELLE DUPLAY, GÜLIN ERSÖZ AND BURCU PALAS

CO-OCCURRENCE AND RISK ASSESSMENT OF HEXABROMOCYCLODODECANE, 2,2',4,4';5,5'-HEXABROMOBIPHENYL AND TOXIC ELEMENTS IN BUFFALO RIVER ESTUARY, EASTERN CAPE PROVINCE, SOUTH AFRICA

OMOBOLA OKOH

SOLAR-BASED ATMOSPHERIC WATER ABSORBER: DESIGN AND PERFORMANCE ANALYSIS

ANWUR ALENEZI, ABOUELYAZED KULIAB AND YOUSEF ALABAIADLY

ANALYSIS OF THE IMPACT OF TREATED WASTEWATER IRRIGATION ON THE PHYSICOCHEMICAL PROPERTIES OF SOIL: A CASE STUDY OF THE HENNAYA IRRIGATED ZONE, ALGERIA

ABDERRAHIM BADRAOUI, CHERIFA ABDELBAKI, MADANI BESSEDIK, SIDI MOHAMED TIAR AND NADIA BADR

WATER QUALITY INDICES AS A TOOL FOR ASSESSMENT OF SURFACE WATER QUALITY OF KEDDARA DAM, ALGERIA

TOSIN SARAH FASHAGBA, MADANI BESSEDIK, NADIA BADR AND CHERIFA ABDELBAKI

OPTIMAL LOCATION FOR INSTALLING ENERGY RECOVERY SYSTEM IN TRANSCO WATER TRANSMISSION SYSTEM

AAMNA AL MAZROUEI, ANDREI SLEPTCHENKO AND MOHAMMED ABDALLAH

EFFICIENT BIFUNCTIONAL APPLICATIONS OF CDSE QUANTUM DOTS DECORATED ON TERNARY METAL OXIDE NANOCOMPOSITE TOWARDS WASTE WATER TREATMENT

ARJUN KUMAR BOJARAJAN, RAMALINGAM GOPAL, SALAH ADDIN BURHAN AL OMARI, DALAL ALSHAMSI, MOHSEN SHERIF AND SAMBASIVAM SANGARAJU

WEDNESDAY

28 FEBRUARY 2024

POSTER SESSION 3 (T5 & T6) - ZABEEL BALLROOM FUNCTION AREA

CHAIR PROF. AHMED HADIDI & PROF. EFREN DELGADO

1:00 PM - 2:00 PM

EVALUATION OF STREPTOMYCETE ACTINOBACTERIAL ISOLATES AS BIOCONTROL AGENTS AGAINST ROYAL POINCIANA STEM CANKER DISEASE CAUSED BY THE FUNGAL PATHOGEN NEOSCYTALIDIUM DIMIDIATUM
SEHAM ALRAISH, KHALED A. EL-TARABILY AND SYNAN F. ABUQAMAR

EFFECT OF THE EXTRUSION PROCESS ON THE PHYSICAL AND FUNCTIONAL PROPERTIES OF SHRIMP FEED MADE FROM BLACK SOLDIER FLY LARVAE MEAL
JORGE IÑAKI GAMERO-BARRAZA, DAMIÁN REYES-JÁQUEZ, HIRAM MEDRANO-ROLDÁN, EFRÉN DELGADO, GERARDO ANTONIO PÁMANES-CARRASCO AND DANIELA GALLEGOS-IBÁÑEZ

GROUNDWATER-DEPENDENT ECOSYSTEMS IN COASTAL SEMI-ARID AND ARID ZONES OF THE MEDITERRANEAN REGION: CHALLENGES FOR THEIR MANAGEMENT AND PROTECTION
FREDERIC HUNEAU, EMILIE GAREL AND SEBASTIEN SANTONI

ASSESSING THE IMPACT OF HIGH URBANIZATION ACTIVITIES ON AL SAADIYAT ISLAND'S SHORELINE IN ABU DHABI USING GEOSPATIAL TECHNOLOGY: A LONG-TERM EVALUATION
RANA SAQER AND SALEM ISSA

HYDRO-GEOPHYSICAL INVESTIGATION OF THE QUATERNARY AQUIFER, AT FALAJ HAZZA AREA, AL-AIN, UNITED ARAB EMIRATES
ALAA AHMED, AMIR GABR, HIND SUHAIL, AISHA ALKAABI, NOORAH ALKAABI, HIND ALYASSI AND NOUF ALSHAMSI

ASSESSING THE IMPACT OF WATER RESOURCES SCARCITY ON SUSTAINABLE DEVELOPMENT IN AFRICA'S SAHEL
NYONG PRINCELY AWAZI

THE IMPACT OF ELEVATED TEMPERATURES ON SEED GERMINATION AND EARLY PLANT MORPHOLOGY AND PHYSIOLOGY: THE CASE OF NATIVE FABACEAE PLANTS IN THE UAE.
NOUR ELHOUDA DEBOUZA AND TAOUFIK KSIKSI

REMOVAL OF CAFFEINE BY AERATION PROCESS FOR SUSTAINABLE WASTEWATER TREATMENT
HALA ALMAQADMEH, LILA ALKHAZRAJI, NIHAL HAKIM, MARWA SAKR AND MOHAMED MOHAMED

CHROMATICITY INFLUENCE OF $\text{Cu}_2(\text{OH})_3\text{NO}_3$ @ $\text{Mg}(\text{OH})_2$ NANOCOMPOSITES TOWARDS REUSABLE AND EFFICIENT NOVEL PHOTOCATALYST FOR THE REMOVAL OF ORGANIC POLLUTANTS IN WATER
ARJUN KUMAR BOJARAJAN AND SAMBASIVAM SANGARAJU

THE EFFECT OF TREATED OIL-PRODUCED WATER ON THE CONCENTRATION OF MINERALS IN PLANTS AND SOIL
KHLAID ALJABRI, AHMED ALBUSAIIDI AND MUSHTAQUE AHMED

NITROGEN VACANCY PROMOTED DEFECTIVE BAND STRUCTURE OF G-C3N4: AN IMPROVED LIGHT DRIVEN WASTEWATER TREATMENT AND ARTIFICIAL PHOTOSYNTHESIS
SAMBASIVAM SANGARAJU AND BASKARAN PALANIVEL

ASSESSMENT AND MANAGEMENT OF CONTAMINANTS OF EMERGING CONCERN AND PESTICIDES IN TUNISIAN GROUNDWATER: OCCURRENCE, RISKS, AND SOLUTIONS
HAJER ENNOURI, FATMA AROUS, KHADIJA KRAIEM, MARWA MEKNI, SAFA EL TOUMI AND ATEF JAOUANI

SITE VISIT

2nd INTERNATIONAL CONFERENCE
WATER RESOURCES MANAGEMENT &
SUSTAINABILITY:
SOLUTIONS FOR ARID REGIONS

DATE: Thursday, 29.02.2024

TIME: 07:30 AM – 04:00 PM

OPTION 1

WADI SHAWKA DAM

THE WADI SHAWKA AND SHAWKA DAM IN RAS AL KHAIMAH, UAE, ARE KNOWN AS HIKING DESTINATIONS. THE SHAWKA DAM WAS BUILT IN 2001 TO STRENGTHEN DAMS AND STREAMS IN THE AREA. SHAWKA WADI, KNOWN FOR ITS WINTER AND SPRING RAINS AND FERTILITY, GENERALLY GETS LARGE AMOUNTS OF RAIN.



DATE: Thursday, 29.02.2024

TIME: 07:30 AM – 04:00 PM

OPTION 2

FALAJ SYSTEMS AND WADI TRACKS

A SITE VISIT WITH FIVE STOPS INCLUDING DHAID FALAJ SYSTEM, KHOUR FAKAN, NAHWA VILLAGE, BUHAIS GEOLOGY PARK AND PINK ROCK.



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