

# 第8届环境与灾害国际会议 第10届水资源管理与工程国际会议

The 8<sup>th</sup> International Conference on
Environment and Disasters
The 10<sup>th</sup> International Conference on Water
Resources Management and Engineering
(ICED & ICWRME 2024)

## 会议手册 Conference Program

主办单位

Organizer

国际管理科学与工程技术协会(IAMSET)

International Association of Management Science and Engineering Technology





# Contents 目 录



I.会议介绍 CONFERENCE INTRODUCTION	1
II.日程安排 CONFERENCE SCHEDULE	
III.嘉宾介绍 PRESENTER INTRODUCTION	
IV.组织机构 ORGANIZATION	
V.会议主席 CONFERENCE CHAIRMAN	
VI.期刊支持 RELATED RENOWNED JOURNALS	
VII.参与信息 PARTICIPATION INFORMATION	
会议时间和方式 Conference Time and Way	
会议入口 Conference Entrance	
联系方式 Contact Us	



## I.会议介绍

#### I. CONFERENCE INTRODUCTION

## 会议背景

#### BACKGROUND

生态环境是人类赖以生存和发展的基础,环境的恶化必然导致自然灾害频发,给人类带来巨大的危害和损失。同时,自然灾害的发生也会造成生态环境的进一步恶化。因此,保护生态环境,有效预防和减少自然灾害的发生,是各国的共同责任。水资源是生态环境系统的重要组成部分。人类对水资源的不合理开发利用也会造成地质环境的恶化,进而引起气候变化,加剧人与自然的矛盾。因此,如何加强水资源的配置、回用、优化和管理,对于改善环境、预防和减少灾害具有重要意义。

在此背景下,第八届环境与灾害国际会议暨第十届水资源管理与工程国际会议(ICED&ICWRME2024)以气候变化与自然灾害,灾害预防和管理,灾害控制与重建及水处理工艺工程,水的使用和管理,过程控制、建模与优化等为主题,旨在为相关领域的专家、研究人员和学者提供一个跨行业交流的平台,以分享他们最新研究成果和趋势,讨论遇到的困难和挑战,为水资源管理、防灾减灾提出建设性建议。

The ecological environment is the foundation of human survival and development. The deterioration of the environment will inevitably lead to frequent natural disasters and bring great harm and loss to human beings. At the same time, the



occurrence of natural disasters will also cause the further deterioration of the ecological environment. Therefore, it is the common responsibility of all countries to protect the ecological environment and effectively prevent and reduce the occurrence of natural disasters. Water resources are an important part of the ecological environment system. Human's unreasonable development and utilization of water resources will also cause the deterioration of geological environment, which will cause climate change and intensify the contradiction between man and nature. Therefore, how to strengthen the distribution, reuse, optimization and management of water resources plays an important role in improving the environment and preventing and reducing disasters.

Therefore, the 8th International Conference on Environment and Disasters & the 10th International Conference on Water Resources Management and Engineering (ICED&ICWRME2024), focusing on the topics of Climate Change and Natural Disasters, Disaster Prevention and Management, Disaster Control and Reconstruction, Water Treatment Processes Engineering, Water Use and Management; Process Control, Modelling and Optimization, etc., aims to provide a cross-industry platform for experts, researchers and scholars in related fields to exchange and share their latest research results and trends, discuss the difficulties and challenges encountered, so as to put forward constructive suggestions for water resources management, disasters prevention and reduction.



## 会议目的

#### **OBJECTIVES**

ICED&ICWRME 2024 旨在汇集领先的学术科学家,研究人员和研究学者,交流和分享他们在环境与灾害及水资源管理与工程领域等方面的经验和研究成果。它还为研究人员、从业者和教育工作者提供了一个重要的跨学科平台,以展示和讨论环境与灾害及水资源管理与工程领域的最新创新、趋势、关注以及遇到的实际挑战和采用的解决方案,凭借其高质量,它为学生、学者和研究人员提供了非凡的价值。

ICED&ICWRME 2024 aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of environment, disasters, water resources management and engineering. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of environment, disasters, water resources management and engineering. With its high quality, it provides an exceptional value for students, academics and researchers.



## 会议主题

#### **TOPICS**

会议主题 Topics			
主题一/Topic 1:	Climate Change and Natural Disasters		
主题二/Topic 2:	Disaster Prevention and Management		
主题三/Topic 3:	Disaster Control and Reconstruction		
主题四/Topic 4:	Environmental Quality and Management		
主题五/Topic 5:	Environment Management and Analysis		
主题六/Topic 6:	Ecology and Ecosystems		
主题七/Topic 7:	Renewable Energy and Sustainable Use of Resources		

会议主题 Topics				
主题一/Topic 1:	Water Treatment Processes Engineering			
主题二/Topic 2:	Water Use and Management			
主题三/Topic 3:	Process Control, Modeling and Optimization			
主题四/Topic 4:	Water Pollution and Impacts on Environment			
主题五/Topic 5:	Hydrology Research			
主题六/Topic 6:	Water Resources Engineering			



## II.日程安排

#### II. CONFERENCE SCHEDULE

Dec. 16	会议测试 Conference Rehearsal(9:00-17:30)				
9:00-17:30					
		开幕式 Opening Ceremony (9:00-9:05	)		
	嘉宾演讲 Keynote Speech(9:05-12:10)				
	时间 Time	报告题目 Title	报告人 Speaker		
	9:05-9:35	The progress of short-term predictability of strong earthquakes in China Mainland within recent 10 years: A review	Prof. Fuqiong Huang(黄辅琼)		
	9:35-10:05	Multi-scale CFD modelling for water recovery in membrane systems	Prof. Yong Yeow Liang		
Dec. 17	10:05-10:35		Prof. Hassimi Abu Hasan		
9:00-16:10	10:35-10:55	Biofuels: powering a greener planet and securing our food future	Dr. Yogeeswari Subramaniam		
	10:55-11:20	Novel computational approaches in water resource management: modeling lake interconnections and pollutant dynamics with fractional calculus and neural networks	Ramsha Shafqat		
	11:20-11:40	Inverse groundwater modelling of large aquifer systems by simulation and optimization model	Dr. Sharad Narayan Patel		
	11:40-12:10		Dr. Manish Jain		



	午餐时间 Lunch Break(12:10-14:00)				
	嘉宾演讲 Keynote Speech(14:00-15:45)				
时间 Time	报告题目 Title	报告人 Speaker			
14:00-14:25	The role of new structural systems for reducing the bad effects of earthqukes on Buildings	Dr. Abbasali Sadeghi			
14:25-14:50	Analysis of future drought characterization under multiple drought Indices and climate change impact conditions for developing best strategic measures with CMIP-6 climate model in mille watershed, Lower Awash Basin, Ethiopia	Asnake Enawgaw Amognehegn			
14:50-15:10		Dr. Muhammad Sheraz Ahmad			
15:10-15:20	Constructing the efficacy of adaptive capacity-building strategies in earthquake-prone communities	Dr. Bih-Chuan Lin (林碧絹)			
15:20-15:45		Dr. Mahmoud Ali			
	口头报告 Oral Presentation(15:45-16:00)				
15:45-16:00	Assessing urban flood emergency response driven by social sensing data	Yixin Jiang (江懿鑫)			
论文推荐 Paper Recommendation(16:00-16:05)					
Paper Recommendation 论文推荐					
	闭幕式 Closing Ceremony (16:05-16:10)				

Note: All time above is for GMT+8:00 (Beijing Time)



## III.嘉宾介绍

#### III. PRESENTER INTRODUCTION

## 主讲嘉宾

KEYNOTE SPEAKERS



Fuqiong Huang (黄辅琼), Professor

Department of Earthquake Prediction, China Earthquake Networks Center, China Earthquake Administration (CEA)

Fuqiong Huang hold a PhD in Solid Earth Geophysics from the Ins titute of Geophysics, China Earthquake Administration (CEA) and c urrently is a Research Professor of Earthquake Seismology in Depar tment of Earthquake Prediction, China Earthquake Networks Center (CENC), CEA. The research fields involve in hydrogeology, enginee ring geology, structural geology, geochemistry, earthquake hydrology & hydro-seismology, induced seismicity, especially in the interactio n between fluids and rocks and its role during earthquake preparati on & occurrence aimed at earthquake prediction routine work, as w ell as the mechanisms for understanding the earthquake process, and those related. She participated in nearly 20 research projects, and



has published more than 100 papers with 478 citations in internatio nal and national journals. She is a life member of the Seismologica I Society of America, the Seismological Society of China (SSC), the China Geophysical Union, and the European Geophysical Union, and a member of the American Geophysical Union, a member of Asian Oceania Geoscience Society (AOGS), and also continues to serve as Section Secretary of Solid Earth of AOGS, Secretary Gener al of Earthquake Prediction Committee, Vice Director member of Secience Literacy Committee of SSC. She also serves as the Guest A ssociate Editor for Frontiers in Earth Science.



Yong Yeow Liang, Associate Professor

Universiti Malaysia Pahang Al-Sultan Abdullah
(UMPSA)

Yong Yeow Liang holds a Ph.D. in Chemical Engineering from the University of New South Wales, Australia, and currently works as an associate professor at Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA). He is a chartered engineer with IChemE and a professional technologist registered with the Malaysia Board of Technologists. His research areas include membrane spacer modification, techno-economic analysis, energy analysis, and process system engineering. He has



published more than 40 papers as the corresponding author in high-quality journals. Dr Liang has been awarded the Cendekia Bitara for the years 2018, 2019, 2021, 2022, and 2023 (Journal Publication Category) by UMPSA.



Hassimi Abu Hasan, Associate Professor

Department of Chemical and Process Enginee
ring, Universiti Kebangsaan Malaysia

Dr. Hassimi Abu Hasan currently works as the Head of Research Centre for Sustainable Process Technology (CESPRO) and the Associate Professor at Universiti Kebangsaan Malaysia. His research interests focus on Water and wastewater treatment (Biofiltration, Phytoremediation, Phycore mediation, coagulation/flocculation) and resource recovery. He participated in 23 research grants as the Principal Researcher and 58 research grants as Co-Researcher and published 68 journal papers as Main/Corresponding authors, 134 journal papers as Co-authors, 46 Proceedings Paper/Abstract Book, 27 Technical Report/Research Report, 13 books/ book chapters, 3 patents, etc. He serves as the editor for Water, and Journal of Engineering Science and Technology, and the editorial board member of Journal of Water Process Engineering, Water, Journal of Ecological Engineering, Jurnal Kejuruteraan (Journal of Engineering)



and IEM Journal. He is the reviewer of journals, proceedings, book and books chapters, and reviewed more than 270 journal papers and 50 conference articles, and 3 books. He is listed the World's Top 2% Scientists 2022, 2023, 2024 by Stanford University, Elsevier. Dr. Hassimi Abu Hasa also received the Top Cited Article 2020-2021 awarded by Wiley Publisher.



Yogeeswari Subramaniam, Senior Lecturer Universiti Teknologi Malaysia, Malaysia

Dr. Yogeeswari Subramaniam is a Senior Lecturer at Universiti Teknologi Malaysia with expertise in Development Economics, Environmental & Resource Economics, and Financial Economics. She holds a PhD in Finance from Universiti Sains Malaysia and has received multiple international awards, including the 2023 Emerald Literati Award for Outstanding Paper. Her research focuses on the intersection of technology, poverty reduction, and sustainable development, with numerous publications in high-impact journals. Dr. Yogeeswari is a dedicated educator and active contributor to both academic and community projects, making significant strides in research and



innovation.



Ramsha Shafqat, PhD Candidate
Thammasat University, Thailand

Ramsha Shafqat is a PhD Candidate at Thammasat University, Thailand. Her research interests lie in Applied Mathematics, Fluid mechanics, Dynamical system, Fuzzy fractional differential equations, Control Theory, Evolution Equations and Boundary value problems for fractional differential equations, Simulations for fractional differential equations, stability and long time behavior of solitary waves, etc. She participated in more than 10 research projects and has published 40 journal articles up to date. She often participated in academic conferences and delivered her speeches. She also serves as the reviewer for many journals.



Sharad Narayan Patel, Assistant Professor

Department of Civil Engineering, Shri Ram
Institute of Technology, Jabalpur, India

Sharad Narayan Patel holds Ph.D. in Civil Engineering from Indian



Institute of Technology, Bombay, India in 2019, and works as the assistant professor at Department of Civil Engineering, Shri Ram Institute of Technology, Jabalpur, India. His expertise lies in Groundwater Flow Modelling and Management, Meshfree Method, Evolutionary Algorithms and their Hybridizations, Application of Artificial intelligence in the groundwater. He has published 9 articles in peer reviewed journals, 6 conference papers, 3 book chapters and 5 patents. He serves as a reviewer for some journals including Water Resources Management, Hydrological Processes, Journal of Soil and Water Conservation, etc. He is the memberships of research societies, including American Society of Civil Engineering, European Water Resources Association, Indian Water Resources Society and so on.



Abbasali Sadeghi, Lecturer

Department of Civil Engineering, Islamic
Azad University, Birjand Branch, Iran

Dr. Abbasali Sadeghi is currently a lecturer in Department of Civil Engineering at Islamic Azad University of Birjand Branch, Iran. He has obtained his BSc in Civil Engineering from Islamic Azad University of Birjand Branch and MSc and PhD degrees in Structural Engineering from Islamic Azad University of Mashhad Branch, Iran. Later he has worked



as a research assistant in Concrete Technology Research Center of Islamic Azad University, Birjand Branch, Iran. Also, he has been working in construction industry for several years. His current research interests are concrete construction, progressive collapse, reliability analysis, and application of smart materials in buildings. He has published technical papers in the most referred international journals like Elsevier and Springer. He also serves as a reviewer of many international journals supported by Elsevier, John Wiley, Springer, SAGE, Hindawi, MDPI, Emerald, and ASCE.



Manish Jain, Head of Department Ahir College, Rewari, Haryana, India

Manish Jain received his Ph.D. in Mathematics from JC Bose University of Science & Technology, YMCA Faridabad in 2019, and currently is working as an Assistant Professor and Head of Mathematics Department at Ahir College, Rewari, Haryana, India. His research interests focus on Fixed Point Theory and Applications. He is proven track record of conducting high-quality research, with more than 30 publications in international refereed journals and 13 contributed conference talks, 3 invited talks and 5 conference papers. He serves as the Editor of TWMS



Journal of Engineering and Applied Mathematics, Pure and Applied Mathematics Journal (PAM), and Ratio Mathematica. Dr. Manish Jain also attended many conferences and workshops and gave his talks. He has been awarded the "Best Researcher Award" in National Faculty Award 2023-2024 by Novel Research Academy, Puducherry, India.



Muhammad Sheraz Ahmad, Research Fellow

Center for Environmental Sustainability and Human Health, Ming Chi University of Technology, Taiwan

Muhammad Sheraz Ahmad holds PhD in Electrochemistry, and currently serves as a research fellow (Research faculty) at Center for Environmental Sustainability and Human Health, Ming Chi University of Technology, Taiwan. His research interests focus on Electrocatalysis, Waste biomass to valuable chemicals, and Water treatment. He has published 20 journals papers and 2 book chapters. He serves as Editorial Board Member of Maejo International Journal of Energy and Environmental Communication (MIJEEC) and International Journal of Innovative Research and Scientific Studies (IJIRSS), also the reviewer for many journals including ACS Applied Nano Materials, Science of Total Environment, Scientific Reports, Chemical Eng. Journal etc., and is the



member of American Chemical Society (ACS).



Bih-Chuan Lin (林碧絹), Assistant Professor DaYeh University

Dr. Bih-Chuan Lin is a dedicated researcher and educator with a passion for sustainable development and disaster management. She received her Ph.D in Natural Resources and Environmental Studies from National DongHwa University in 2023, following her PhD Candidate studies in the Department of Architecture at National Cheng Kung University (2002– 2010), and currently is working as an assistant professor at Department of Architecture and Interior Design /Graduate School of Architecture, DaYeh University, where she also serves as a Professional Consultant for the Tzu Chi Charity Foundation, Tzu Chi Merit Association, and Jing Si Abode (2013-Present). Her research interests focus on Disaster Management, Sustainable Management, Green and Sustainable Architecture Design, Landscape Architecture/Urban Design, Universal Design/Inclusive Design. She has published 15 journal and conference papers. Dr. Lin also serves as the editor and reviewer for some journals like International Journal of Disaster Risk Reduction,



Environment and Social Psychology, Disaster and Emergency Medicine Journal, etc.



Mahmoud Ali, Scholar
University of Tehran, Iran

Mahmoud Ali holds Ph.D. in Structural Engineering from University of Tehran, Iran in 2024. His researches focus on steel structures and structural analysis. He has published 7 articles up to date. He serves as the reviewer for Journal of Building Engineering, Journal of Earthquake and Tsunami, Journal of Infrastructure, Policy and Development. He also received some honors and awards and is in the list of "Distinguished Student" by Engineering Campus, University of Tehran in 2023 and 2024.



Asnake Enawgaw Amognehegn, Senior Researcher and Lecturer Wollo University, Ethiopia

Dr. Asnake Enawgaw Amognehegn is a Senior Researcher and Lecturer



at Wollo University. He holds a Master's degree in Hydraulic Engineering from Wollo University's Kombolcha Institute, focusing on the effects of climate and land-use changes on water resources, hydrological and hydrodynamic modeling, climate change impact studies, reservoir planning and operation, hydropower, dam engineering, eco-hydrology, and the coupling and modeling of water-energy-carbon fluxes. Dr. Amognehegn has published 7 articles. He completed a four-month internship at Abbay Construction Enterprise, where he was involved in the design and construction of the Amanuel water supply project. Additionally, he served as the chairman of the Ethiopian Red Cross in the Amhara region of Debre Markos for five years and has taught in the Department of Hydraulic and Water Resources Engineering at Wollo University for five years.

## 口头报告嘉宾

ORAL SPEAKERS



Yixin Jiang (江懿鑫), Scholar

School of Geography, Nanjing Normal University, China

Yixin Jiang, a postgraduate student specializing in Cartography and



Geographic Information Systems at the School of Geography, Nanjing Normal University, China. His research focuses on flood simulation and the monitoring of urban flood-prone areas using social sensing data. The study, "Evaluating the effect of urban flooding on spatial accessibility to emergency shelters based on social sensing data", has been published in Transactions in GIS. He has received several awards, including Third Prize in the 2024 "i-search" Graduate Information Retrieval Contest, Excellence Award in the 11th "Sharing Cup" Innovation Contest, and Second Prize in the 21st Huawei Cup Graduate Mathematical Modeling Competition. Additionally, he contributed to the "2024 Flood Prevention Capability Assessment for Substations in Jiangsu Province" project and was involved in developing major functional modules for watershed delineation, flood simulation, and compound disaster modeling within the "HarzardCM" system.



## IV.组织机构

#### IV. ORGANIZATION



ICED&ICWRME 2024 国际会议主办单位国际管理科学与工程技术协会(IAMSET)于 2010 年在香港注册成立,为合法运营的专业机构,在郑州设立有办事处。业务范畴包括理学、自然科学、社会科学、工程科学、信息学、医学等,涵盖了国际 STEM 的全部学科:科学(Science),技术(Technology),工程(Engineering),数学(Mathematics)等,并通过组织国际学术会议、论坛、研讨会等多种学术交流活动,为来自世界各地的专家学者建立了学术交流的优质平台。

协会通过组织并承办技术研讨会与来自全球的学术机构或个人 建立良好的合作关系,为各国学者提供互相学习、自由交流的平台, 为年轻学者提供机会,使其能够在实践中撰写优秀学术成果、了解学 术成果出版的操作流程,从而提升自身以及团队的学术水平。同时为 推进和传播管理科学、工程技术等前沿研究提供强有力的支持。

国际管理科学与工程技术协会与多家世界知名出版集团和多位期刊主编建立了良好的合作关系,如学术出版社(Academic Press),施普林格出版社(Springer),美国机械工程师协会(ASME),美国科学出版社(American Scientific Publishing)等出版社。



协会承接国际学术会议举办,国际人才引进,高分学术论文指导, 优秀论文推荐发表,论文推广等学术活动。国际管理科学与工程技术 协会努力践行以上使命,以加强与各国学术机构之间的合作,促进国 际学术交流。



## V.会议主席

#### V. CONFERENCE CHAIRMAN



Dr. Zhenling Liu

Henan University of Technology, China

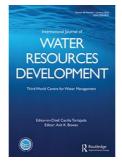
Prof. Zhenling Liu is the associate professor at the School of Management, Henan University of Technology and is charge of teaching the courses, including "Quantitative Analysis", "Comprehensive Experiment on Application of Statistical Analysis Software", "Econometrics", "Marketing Research and Decision Making", and "Frontier of Management", etc. His research interests focus on energy-economy-environment system and sustainable development. Prof. Liu presided or participated in several projects and has published more than 90 papers in national and international journals and 13 books. He also severs as the associate editor of Journal of Sustainable Science and Management, and the editor of Advances in Industrial Engineering and Management. Prof. Liu has won several awards, including 3 provincial and ministerial science and technology progress awards.

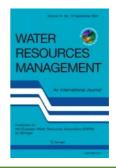


## VI.期刊支持

#### VI. RELATED RENOWNED JOURNALS















## VII.参与信息

#### VII. PARTICIPATION INFORMATION

## 会议时间和方式

Conference Time and Way

- 北京时间 2024 年 12 月 16 日, 9:00-17:30 会议测试
   December 16, 2024, 9:00-17:30 (Beijing Time): Conference Rehearsal
- 北京时间 2024 年 12 月 17 日, 9:00-17:30 线上会议 December 17, 2024, 9:00-17:30 (Beijing Time): Online Conference
- 请提前下载腾讯会议或 ZOOM 并注册账号 Please install VooV Meeting or ZOOM on your PC and create an account in advance.
- 请各位嘉宾于会议当天提前进入会议室,谢谢! Please speakers join the VooV Meeting or ZOOM 5 minutes before the scheduled time on December 17, 2024 (Beijing Time). Thanks.



## 会议入口

#### **Conference Entrance**

#### Way 1: VooV Meeting

● 会议测试入口/Conference Rehearsal Entrance

链接: https://meeting.tencent.com/dm/rWSEwlik9c9b

#腾讯会议: 206-195-019

会议密码: 2024

Link: https://meeting.tencent.com/dm/rWSEwlik9c9b

**Conference ID: 206-195-019** 

Password: 2024

● 正式会议入口/Online Conference Entrance

链接: https://meeting.tencent.com/dm/PoPIpqRiapyP

#腾讯会议: 162-153-578

会议密码: 2024

Link: https://meeting.tencent.com/dm/PoPIpqRiapyP

**Conference ID:** 162-153-578

Password: 2024

Way 2: ZOOM

● 会议测试入口/Conference Rehearsal Entrance

链接:

https://us06web.zoom.us/j/81466335762?pwd=GyLioHvukPdB



#### C4wLtSWjPjSR2wJKJY.1

#ZOOM 会议: 814 6633 5762

会议密码: 2024

#### Link:

https://us06web.zoom.us/j/81466335762?pwd=GyLioHvukPdBC4wLtS

WjPjSR2wJKJY.1

**ZOOM Conference ID: 814 6633 5762** 

Password: 2024

#### ● 正式会议入口/Online Conference Entrance

## 链接:

https://us06web.zoom.us/j/85635590713?pwd=tXzAUzxqCwP

NiZfgZLJ1KXTPKCPqNf.1

#ZOOM 会议: 856 3559 0713

会议密码: 2024

#### Link:

https://us06web.zoom.us/j/85635590713?pwd=tXzAUzxqCwPNiZfgZLJ

1KXTPKCPqNf.1

**ZOOM Conference ID:** 856 3559 0713

Password: 2024



### ● 其他参会入口

#### 微信视频号直播—WeChat Channels Live

#### 抖音直播—TikTok (Chinese version) Live

**Note:** We will upload the conference record to TikTok, WeChat Channel, Twitter, YouTube to promote the conference and your article after the conference.



## 联系方式

**Contact Us** 

## 会务组

**CONFERENCE AFFAIRS GROUP** 

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