

大数据计算与建模国际会议

The International Conference on Big Data

Computing and Modeling

(ICBDCM 2024)

会议手册

Conference Program

主办单位

Organizer

国际管理科学与工程协会（IAMSET）

International Association of Management Science

and Engineering Technology



IAMSET[®]
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CONTENTS 目录

I.大会内容 CONTENTS OF CONFERENCE	1
II.日程安排 OVERALL SCHEDULE	4
III.嘉宾介绍 PRESENTER INTRODUCTION	7
IV.组织机构 ORGANIZATION	19
V.会议主席 CONFERENCE CHAIRMAN	21
VI.期刊支持 RELATED RENOWNED JOURNALS	22
VII.会议信息 CONFERENCE INFORMATION	23
会议时间和方式 Conference Time and Way	
会议入口 Conference Entrance	
联系方式 Contact Us	

I.大会内容

I. CONTENTS OF CONFERENCE

会议背景

BACKGROUND

随着信息技术的快速发展和互联网的普及，大数据计算和建模已经成为推动科技进步和产业创新的重要力量。不仅仅是数据科学家和工程师的领域，它渗透到了各行各业，成为企业决策、市场营销、产品创新、资源优化等方面的关键支持。

在这个背景下，大数据计算和建模国际会议应运而生。此次会议旨在为相关领域的专家、研究人员和学者提供展示最新研究成果、分享行业应用经验以及探讨未来发展趋势的平台，深入了解大数据技术在各个领域的应用案例，共同探索如何在信息爆炸的时代中有效管理、分析和利用数据，推动社会经济的可持续发展和智能化进程。

With the rapid development of information technology and the popularization of the Internet, big data computing and modeling have become an important force to promote scientific and technological progress and industrial innovation. Not just the domain of data scientists and engineers, it permeates all walks of life, becoming a key support for business decision making, marketing, product innovation, resource optimization, and more.

In this context, the international conference on Big Data Computing and

Modeling came into being. The conference aims to provide a platform for experts, researchers and scholars in related fields to display the latest research results, share industry application experience and discuss future development trends, in-depth understanding of the application cases of big data technology in various fields, and jointly explore how to effectively manage, analyze and use data in the era of information explosion. Promote the sustainable development and intelligent process of social economy.

会议目的

OBJECTIVES

ICBDCM2024 旨在汇集领先的学术科学家，研究人员和研究学者，交流和分享他们在大数据计算与建模等各个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，以展示和讨论大数据计算与建模等领域的最新创新，趋势和关注点，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、学者和行业研究人员提供了非凡的价值。

ICBDCM2024 aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Big Data Computing and Modeling. 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 Mechanical Science and Engineering. With its high quality, it provides an exceptional value for students, academics and industry researchers.

会议主题

TOPICS

会议主题 Topics	
主题一/Topic 1:	Big Data Technology
主题二/Topic 2:	Big Data Analysis and Applications
主题三/Topic 3:	Intelligent Computing and Applications
主题四/Topic 4:	Computational Modeling and Simulation
主题五/Topic 5:	Data Modeling and Cloud Computing

II. 日程安排

II. OVERALL SCHEDULE

Sep 11 9:00-18:00	会议测试 Conference Rehearsal		
Sep 12 9:00-16:30	开幕式 Opening Ceremony (9:00-9:05)		
	嘉宾演讲 Keynote Speech (9:05-11:50)		
	时间 Time	报告题目 Title	报告人 Speaker
	9:05-9:30	Retrieval-Augmented Generation (RAG): Paradigms, Technologies and Trends	Prof. Anand Nayyar
	9:30-9:50	FF-UNET: An Enhanced Framework for Improved Segmentation of Brain Tumors in MRI Images	Prof. Muhammad Aamir
	9:50-10:15		Prof. D. Easwaramoorthy
	10:15-10:35	Modeling and Analyzing the Impact of the Slow-fast Effect on the Dynamics of a Predator-prey Model	Dr. Rizwan Ahmed
	10:35-11:00		Dr. Ubaid Ur Rehman
	11:00-11:50		Prof. Muhammad Shahid Iqbal Malik
	午餐时间 Lunch Break (11:50-14:30)		
	嘉宾演讲 Keynote Speech (14:30-16:05)		
	时间 Time	报告题目 Title	报告人 Speaker
14:30-14:55		Dr. Ayaz Hussain	

		Bukhari
14:55-15:20	AI Driven Visual Data Computing	Prof. Deepika Koundal
15:20-15:40	Models for analysis of consumers' behavior for a large retail network	Prof. Fuad Aleskerov
15:40-16:05	Robust Dehazing Methodology Using Enhancement Technique and Filtering-Based Operations	Prof. Apurva Kumari Singh
墙报展示 Poster Presentation (16:05-16:20)		
16:05-16:20		Xing Qian (邢茜)
论文推荐 Paper Recommend (16:20-16:25)		
Recommend Citation Papers 推荐引用论文		
闭幕式 Closing Ceremony (16:25-16:30)		

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

大会报告安排

SPEECHES ARRANGEMENT

时间: 2024年9月12日 9:00-18:00

Time: September 12, 2024 9:00-18:00 (Beijing Time)

地点: 线上会议

Location: Online Conference

大会主席: 刘振灵教授

Chairman: Prof. Zhenling Liu

线上参会链接:

<https://meeting.tencent.com/dm/oMvRuYb2blUL>

#腾讯会议: 554-305-249

会议密码: 2024

Online Attendance Link:

<https://meeting.tencent.com/dm/oMvRuYb2blUL>

Conference ID: 554-305-249

Password: 2024

III.嘉宾介绍

III. PRESENTER INTRODUCTION

主讲嘉宾

KEYNOTE SPEAKERS



Anand Nayyar, Professor & Director

Duy Tan University, Da Nang, Vietnam

Dr. Anand Nayyar received Ph.D (Computer Science) from Desh Bhagat University in 2017 in the area of Wireless Sensor Networks, Swarm Intelligence and Network Simulation. He is currently working in School of Computer Science-Duy Tan University, Da Nang, Vietnam as Professor, Scientist, Vice-Chairman (Research) and Director- IoT and Intelligent Systems Lab. A Certified Professional with 125+ Professional certifications from CISCO, Microsoft, Amazon, EC-Council, Oracle, Google, Beingcert, EXIN, GAQM, Cyberoam and many more. Published more than 200+ Research Papers in various High-Quality ISI-SCI/SCIE/SSCI Impact Factor- Q1, Q2, Q3, Q4 Journals cum Scopus/ESCI indexed Journals, 80+ Papers in International Conferences

indexed with Springer, IEEE and ACM Digital Library, 60+ Book Chapters in various SCOPUS/WEB OF SCIENCE Indexed Books with Springer, CRC Press, Wiley, IET, Elsevier with Citations: (Google Scholar): 15000+, H-Index: 66 and I-Index: 240; (Scopus): 7800+; H-index: 47. Member of more than 60+ Associations as Senior and Life Member like: IEEE (Senior Member) and ACM (Senior Member). He has authored/co-authored cum Edited 60+ Books of Computer Science. Associated with more than 600+ International Conferences as Programme Committee/Chair/Advisory Board/Review Board member. He has 18 Australian Patents, 15 German Patents, 4 Japanese Patents, 40 Indian Design cum Utility Patents, 13 UK Patents, 1 USA Patent, 3 Indian Copyrights and 2 Canadian Copyrights to his credit in the area of Wireless Communications, Artificial Intelligence, Cloud Computing, IoT, Healthcare, Drones, Robotics and Image Processing. Awarded 48 Awards for Teaching and Research—Young Scientist, Best Scientist, Best Senior Scientist, Asia Top 50 Academicians and Researchers, Young Researcher Award, Outstanding Researcher Award, Excellence in Teaching, Best Senior Scientist Award, DTU Best Professor and Researcher Award-2019, 2020-2021, 2022, 2022-2023 Distinguished Scientist Award by National University of Singapore, Obada Prize 2023, Lifetime Achievement Award 2023; Asian Admirable Achievers 2024; Distinguished Academic Leader 2024 and many more.

He is listed in Top 2% Scientists as per Stanford University (2020, 2021, 2022), Ad Index (Rank No:1 Duy Tan University, Rank No:1 Computer Science in Viet Nam) and Listed on Research.com (Top Scientist of Computer Science in Viet Nam- National Ranking: 2; D-Index: 42; World Ranking: 6968). He is acting as Associate Editor for Wireless Networks (Springer), Computer Communications (Elsevier), International Journal of Sensor Networks (IJSNET) (Inderscience), Computers Materials and Continua (CMC), Tech Science Press- IASC, Cogent Engineering, Human Centric Computing and Information Sciences (HCIS), PeerJ Computer Science, IET-Quantum Communications, IET Networks, IEEE Transactions on Artificial Intelligence (IEEE TAI), Indonesian Journal of Electrical Engineering and Computer Science, IJFC, IJISP, IJDST, IJCINI, IJGC, IJSIR, IJBDCN, IJNR, IJSI. He is acting as Managing Editor of IGI-Global Journal, USA titled “International Journal of Knowledge and Systems Science (IJKSS)” and Editor-in-Chief of IGI-Global, USA Journal titled “International Journal of Smart Vehicles and Smart Transportation (IJSVST)”. He has reviewed more than 5100+ Articles for diverse Web of Science and Scopus Indexed Journals. He is currently researching in the area of Wireless Sensor Networks, Internet of Things, Swarm Intelligence, Cloud Computing, Artificial Intelligence, Drones, Blockchain, Cyber Security, Healthcare Informatics, Big Data and Wireless Communications.

**Deepika Koundal, Associate Professor****University of Petroleum and Energy Studies
(UPES), India****University of Eastern Finland, Finland**

Deepika Koundal is currently an associate professor with University of Petroleum and Energy Studies, Dehradun, India and as adjunct professor at Ho Chi Minh City Open University, Vietnam. She is awardee of Best paper award by JVCi 2023- Elsevier, also honoured to be in 2% top world scientist list by Stanford University under AI and image processing. She is also selected as a Young Scientist in 6th BRICS Conclave by NIAS-DST in 2021. She is the awardee of research excellence award given by UPES in 2023, 2022 and Chitkara University in 2019. Her areas of interest are Artificial Intelligence, Computer vision, IoT, Biomedical Imaging and Signals, Soft Computing, Machine Learning/Deep Learning. She has published more than 100 research articles in reputed SCI and Scopus-indexed journals, conferences and three books. She is currently a guest editor in “Computers & Electrical Engineering”, “Internet of Things Journals” (Elsevier) and “IEEE Transaction of Industrial Informatics”. She is also serving as Associate Editor in “IEEE Transaction of Artificial Intelligence”, “IEEE Robotics and Automation Letters”, “Healthcare Analytics” (Elsevier), “Supply Chain Analytics” (Elsevier), etc.



Ubaid Ur Rehman, Visiting Faculty

International Islamic University, Pakistan

Ubaid Ur Rehman is a Doctor in Mathematics, and currently working as a visiting faculty of Department of Mathematics and Statistics, the International Islamic University. His research interests include Fuzzy Operations, Fuzzy Algebra, and Fuzzy Decision Analysis, Rough Set, Soft set and their generalizations, etc. and he adept at conducting ground breaking research, analyzing complex problems, and developing innovative solutions. He has published research results in prestigious journals with more than 50 articles, seeking opportunities to contribute expertise and insights to cutting-edge mathematical research and academic institutions.



Fuad Aleskerov, Department Head

**National Research University Higher School of
Economics, Moscow, Russia**

Prof. Fuad Aleskerov is an excellent researcher. After receiving his PhD in Control in Socio--Economic Systems in 1994, he has been the Mark

Aizerman Chair on Choice Theory and Decision Analysis, Institute of Control Sciences of Russian Academy of Sciences since 2001. Since 2003, he has been the head of the Department of Mathematics for Economics, National Research University Higher School of Economics, Russia. Since 2009, he has also been the Head of the International Centre of Decision and Choice Analysis. Since 1986, he has been actively involved in a variety of professional activities, has received more than 50 awards, and has made many contributions in the field of research. His research interests include: Multicriterial choice and decision making, Mathematics of conflict, Social Choice Theory, Operations research, Game theory, Decision theory, Data analysis, Graphs and networks, etc. As a scholar, he is a member of the editorial boards of several journals, such as “Mathematical Social Sciences”, “Springer Nature Computer Science”, and “Annals of Data Analysis”, among others. And he has published 200 articles in peer-reviewed journals and 13 books.



Muhammad Shahid Iqbal Malik,
Associate Professor
University of Wah, Pakistan

Dr. Malik is an Associate Professor at the department of computer

science, University of Wah, Pakistan. Recently, he completed his Postdoc Fellowship at the Laboratory for Models and Methods of Computational Pragmatics, National Research University HSE, Moscow, Russia. Dr. Malik received his Master's degree in Computer Engineering (2011), followed by a Doctoral degree in Data Mining (2018) from the International Islamic University, Islamabad Pakistan. Furthermore, he served 12 years in the HVAC industry in Islamabad and developed several Embedded System solutions for Air-Conditioning Systems. Dr. Malik authored more than 26 research papers published in reputed SCI and Scopus-indexed Journals, and conferences. His research interests include Data Mining, Social Media Mining, Natural Language Processing, Text Mining, and Social Computing.



Rizwan Ahmed, Assistant Professor

Air University Islamabad, Pakistan

Dr. Rizwan Ahmed comes from Pakistan, holding a PhD in Mathematics with a specialization in Dynamical Systems. He currently serving as an Assistant Professor in the Department of Mathematics at Air University Multan Campus, Multan, Pakistan. His research interests encompass a diverse range of topics within Mathematics, including Dynamical

Systems, Population Dynamics, and Financial Mathematics.

He have a robust publication record with over 30 research papers published in prestigious, peer-reviewed journals. Throughout his academic career, he has contributed significantly to the advancement of his field, and his work has been recognized for its impact and excellence.



Ayaz Hussain Bukhari, Scholar
QuantumsTech, Singapore

Ayaz Hussain Bukhari received the Ph.D. degree of Mathematics Department, Abdul Wali Khan University Mardan, Pakistan. He has 20 years of teaching experience at different universities in Pakistan, including NED UET Karachi, National University of Science and Technology Islamabad, and Air University Islamabad. His areas of interest are Data analysis, Algorithm designing, Deep learning modelling, Fractional Calculus and Techniques application to fractional order system in engineering. Now, he is an Artificial Intelligence and Machine Learning Engineer at QuantumsTech, He has published multiple papers in prestigious journals on topics such as nonlinear modeling, neural networks, and fractional calculus, demonstrating his ability to conduct cutting-edge research and analysis.



D. Easwaramoorthy, Associate Professor

Vellore Institute of Technology, India

D. Easwaramoorthy received the Ph.D. Degree in Mathematics from The Gandhigram Rural Institute (Deemed to be University), Dindigul, India. He currently serves as an Associate Professor in the Department of Mathematics, School of Advanced Sciences, Vellore Institute of Technology (VIT), India. His research interests include Fractal Analysis, Fractal Dimensions, Fuzzy Metric Spaces, Fuzzy Mathematics, Signal and Image Analysis, Biomedical Signal Analysis and Biomedical Image Analysis. He has published numerous research articles in the reputed scientific journals and conference proceedings. He is a life member of many professional societies such as Indian Mathematical Society, Ramanujan Mathematical Society, The Indian Science Congress Association, International Society of Difference Equations, Academia for Advanced Research in Mathematics, MathTech Thinking Foundation, Indian Society of Theoretical & Applied Mechanics and others.



Muhammad Aamir, Associate Professor
Huanggang Normal College, China

Muhammad Aamir received his Bachelor of Engineering degree in Computer Systems Engineering from Mehran University of Engineering & Technology, Sindh, Pakistan, in 2008. He went on to earn a Master of Engineering degree in Software Engineering from Chongqing University, China, in 2014, and later completed his PhD in Computer Science and Technology from Sichuan University, China, in 2019. Currently, he is an Associate Professor in the College of Computer Science at Huanggang Normal University, China. With extensive research experience and a prolific publication record, Dr. Aamir has made significant contributions to various fields including pattern recognition, computer vision, etc. His expertise and dedication to advancing these areas have earned him recognition as a peer reviewer for numerous prestigious journals and as an organizing committee member for several international conferences.

**Apurva Kumari Singh, Associate Professor****B V Raju Institute of Technology (BVRIT),
Telangana, India**

Apurva Kumari Singh received her doctoral degree from Birla Institute of Technology and Science, Pilani in 2017, and currently works as an Associate Professor at Department of Electronics & Communication Engineering, B V Raju Institute of Technology (BVRIT), Telangana, India. Her research interests focus on development of algorithms for real-time image and video processing, digital image processing, digital signal processing, image fusion, etc. She has participated in one research project and has published 5 journal articles, 15 conference papers, one book chapter and 2 patents. She won the “Young Scientist Award” by VD Good Technology. Additionally, she actively contributes to the academic community by serving as a reviewer, keynote speaker and panelist at technical conferences, workshops, and seminars.

墙报展示嘉宾

POSTER PRESENTER

Qian Xing(邢茜), Scholar

Hunan Institute of Science and Technology, China

IV. 组织机构

IV. ORGANIZATION



ICBDCM 2024 论坛承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



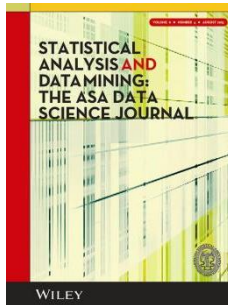
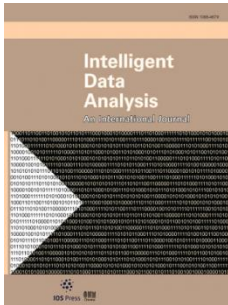
Dr. Zhenling Liu

Henan University of Technology, China

Prof. Zhenling Liu is the associate professor at the School of Management, Henan University of Technology and is in 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 serves 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.会议信息

VII. CONFERENCE INFORMATION

会议时间和方式

Conference Time and Way

- 北京时间 2024 年 9 月 11 日, 09:00-18:00 会议测试

September 11, 2024, 09:00-18:00 (Beijing Time): Conference Rehearsal

- 北京时间 2024 年 9 月 12 日, 09:00-18:00 线上会议

September 12, 2024, 09:00-18:00 (Beijing Time): Online Conference

- 请下载腾讯会议并提前注册账号

Please install VooV Meeting Software on your PC (The official website of VooV Meeting Software: <https://voovmeeting.com/>) 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 in advance on September 12, 2024 (Beijing Time). Thanks.

会议入口

Conference Entrance

- **会议测试入口/Conference Rehearsal Entrance**

链接: <https://meeting.tencent.com/dm/IUk8PTQA86uu>

#腾讯会议: 253-363-596

会议密码: 2024

Rehearsal Link: <https://meeting.tencent.com/dm/IUk8PTQA86uu>

Conference ID: 253-363-596

Password: 2024

- **正式会议入口/Online Conference Entrance**

链接: <https://meeting.tencent.com/dm/oMvRuYb2blUL>

#腾讯会议: 554-305-249

会议密码: 2024

Online Link: <https://meeting.tencent.com/dm/oMvRuYb2blUL>

Conference ID: 554-305-249

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 Video to Twitter, YouTube after the conference.

联系方式

Contact Us

会务组

CONFERENCE AFFAIRS GROUP

联系电话 (Contact):

王老师 (Miss Wang): +86 19137184507

会务邮箱 (Email):

icbdcconf@163.com