

CBASE rd3 2024

2024 3rd IEEE International Conference on
Cloud Computing, Big Data Application and Software Engineering

第三届IEEE云计算、大数据应用与软件工程
国际学术会议

October 18-20, 2024 | Hangzhou, China

2024年10月18日-20日 | 中国·杭州

会议手册

CONFERENCE BROCHURE

- ◆ 主办单位：浙江水利水电学院 | 浙江省自动化学会 | 浙江省科协智能制造学会联合体
- ◆ 承办单位：浙江水利水电学院信息工程学院 | AEIC学术交流中心
- ◆ 协办单位：浙江水利水电学院电气工程学院 | 浙江理工大学信息科学与工程学院

Contents

CONTENTS.....	1
CONFERENCE INTRODUCTION	2
COMMITTEE	3
CONFERENCE AGENDA	4
KEYNOTE SPEECH 1	8
KEYNOTE SPEECH 2	9
KEYNOTE SPEECH 3	10
KEYNOTE SPEECH 4	11
INVITED SPEECH 5	12
INSTRUCTIONS FOR PRESENTATIONS	13
NOTICE FOR PARTICIPANTS	14

Conference Introduction

2024 3rd International Conference on Cloud Computing, Big Data Application and Software Engineering will be held from October 18-20, 2024 in Hangzhou, China (via Zoom online). This conference intends to invite top experts, scholars and industry talents in the fields of Cloud Computing, Internet of Things, AI Technology, Big Data Analysis and Application, Machine Learning, Data Mining, Software Technology, Network Security, Data Processing, Software Development, Software Engineering, etc. , to actively explore new ways and methods around the current technological development. In order to provide beneficial decision support and strong impetus for the sustainable development of research in these field.

We sincerely invite experts, scholars, and other relevant people from universities and scientific research institutions at home and abroad to attend the conference!

大会简介

随着大数据时代的到来，对数据获取的随时性和对计算的需求也在逐渐增长。第三届IEEE云计算、大数据应用与软件工程国际学术会议（CBASE 2024）将于2024年10月18-20日在杭州举办（线上形式）。该会议在连续两届成功举办的基础上，本届将由浙江水利水电学院、浙江省自动化学会、浙江省科协智能制造学会联合体主办，浙江水利水电学院信息工程学院承办，浙江水利水电学院电气工程学院、浙江理工大学信息科学与工程学院、AEIC学术交流中心协办。

本次会议旨在齐聚海内外云计算、大数据、软件工程等计算机领域的专家学者，为相关领域研究和从业人员提供一个分享最新研究成果的交流平台。我们诚挚邀请您参加本次会议。

Committee Chair

Conference General Chair

Prof. Yuan Yan TANG, University of Macau, China(IEEE Life Fellow, H index 77)

Prof. Jun Wang, Zhejiang University of Water Resources and Electric Power, China

Prof. Tieming Chen, Zhejiang University of Technology, China (IEEE Member)

Program Committee Chairs

Prof Wai Lok Woo, Northumbria University, UK (IEEE Fellow, IET Fellow, H index 48)

Prof. Xiangjie Kong, Zhejiang University of Technology, China (IEEE Senior Member, H index 51)

Prof. Jinhui Zhao, Zhejiang University of Water Resources and Electric Power, China

Conference Publication Chair

Prof. Dapeng Zhang, Chinese University of Hong Kong (Shenzhen) China, China(IEEE Life Fellow, H index 123)

Prof. Jinfeng Gao, Zhejiang Sci-Tech University, China

Prof. Weidang Lu, Zhejiang University of Technology, China (IEEE Senior Member)

Local Organizing Chairs

Prof. Ouguan Xu, Zhejiang University of Water Resources and Electric Power, China

Prof. Congli Mei, Zhejiang University of Water Resources and Electric Power, China

Organizing Committees

Prof. Lan Li, Zhejiang University of Water Resources and Electric Power, China

Prof. Poonam Dharam, Saginaw Valley State University, USA

Prof. Nikolas Markatos, National Technical University of Athens, Greece

Prof. Nebojša Bačanin Džakula, Univerzitet Singidunum, Serbia

Assoc. Prof. Hongcui Wang, Zhejiang University of Water Resources and Electric Power, China

Dr. Songsong Wang, Zhejiang University of Water Resources and Electric Power, China

Dr. Xiaolu Chen, Zhejiang University of Water Resources and Electric Power, China

Dr. Zezhong Li, Zhejiang University of Water Resources and Electric Power, China

Technology Program Committees

Prof. Lan Li, Zhejiang University of Water Resources and Electric Power, China

Prof. Nageswara Rao Moparthi, K L University, India

Prof. Venkatesan RAJINIKANTH, St. Joseph's College of Engineering, India

Assoc. Prof. Chuan Lin, Northeastern University, China (IEEE Member)

Assoc. Prof. Xiaohui Guan, Zhejiang University of Water Resources and Electric Power, China

Assoc. Prof. Zhi Yang, Zhejiang University of Water Resources and Electric Power, China

Assoc. Prof. Hongcui Wang, Zhejiang University of Water Resources and Electric Power, China

Asst. Prof. Thakerng Wongsirichot, Prince of Songkla University, Thailand

Dr. Xiaolu Chen, Zhejiang University of Water Resources and Electric Power, China

Dr. Zezhong Li, Zhejiang University of Water Resources and Electric Power, China

Dr. Isah Lawal, Noroff University College, Norway

Dr. Hafiz Rauf, Bradford University, UK

Conference Agenda

2024 年 10 月 19 日 / October 19, 2024 ZOOM 会议室/Conference ID: 密码/Password:	
9:00-9:05	Opening Ceremony/开幕式 Dr. Yan Ma, college of Information Engineering, Zhejiang University of Water Resources and Hydropower 马艳博士 (浙江水利水电学院信息工程学院)
9:05-9:15	Opening Speech/开幕式致辞 Prof. Jun Wang, Dean of the college of Information Engineering, Zhejiang University of Water Resources and Hydropower 王军院长/教授 (浙江水利水电学院信息工程学院, 中国)
9:15-9:20	Online photography (Please turn on the camera) 线上合影 (需开启摄像头)
9:20-10:00	Keynote Speech 1 : TBD Prof. Hui Liu, Central South University, China 刘辉教授 (中南大学, 中国)
10:00-10:40	Keynote Speech 2: Handling Dynamic Behaviors in Environments via the Evolutionary Transfer Optimization Technique Prof. Nianyin Zeng, Xiamen University, China 曾念寅教授 (厦门大学, 中国)
10:40-11:20	Keynote Speech 3 : Advances and Challenges for the Automatic Discovery of Interesting Patterns in Data Prof. Philippe Fournier-Viger, Shenzhen University , China Philippe Fournier-Viger 教授 (深圳大学, 中国)
11:20-12:00	Keynote Speech 4 : Spatio-Temporal Graph Learning based Vehicular Trajectory Data Analysis and Applications Prof. Xiangjie Kong, Zhejiang University of Technology, China 孔祥杰教授 (浙江工业大学, 中国)
12:00-14:00	Break/Poster Presentation
14:00-14:30	Invited Speech 5: ACAV: A Framework for Automatic Causality Analysis in Autonomous Vehicle Accident Recordings Assist. Prof Yuqi Chen, Shanghai University of Science and Technology, China 陈宇奇助理教授 (上海科技大学, 中国)

Oral Presentation/口头报告

14:30-14:45	Oral presentation 1: The Metal Defect Detection Model Based On Non-local Fusion Attention And Residual Networks Zhang Jun(章俊), Jiangxi University of Science and Technology, China
14:45-15:00	Oral presentation 2: Long time series forecasting based on dilated causal convolution and focused linear attention with Informer Rongjie Liu(刘荣杰), Wuhan Institute Of Technology, China
15:00-15:15	Oral presentation 3: Cross-modality Person Re-identification Based On Dual Attention Mechanism And Multi-scale Features Yunlong Bai(白云龙), Jiangxi University of Science and Technology, China
15:15-15:30	Oral presentation 4: To Solve the "Last Kilometer" Problem in Aerospace Unit Knowledge Engineering Based on Intelligent Search Engine Long Ji(吉龙), Institute of Spacecraft System Engineering, China
15:30-15:45	Oral presentation 5: Full View Tracking: Multi-Camera People Tracking Based on Appearance and Spatio Temporal Feature Changbei Xie(谢昌贝), Nanjing University of Aeronautics and Astronautics, China
15:45-16:00	Oral presentation 6: PGAN: A Position-based Graph Attention Network for visible-infrared person re-identification Chen Xue(薛宸), Beijing University of Posts and Telecommunications, China
16:15-16:30	Oral presentation 7: Dual Aggregation Convolution for Image Super-Resolution Zheng Xie(谢政), YanTai University, China
16:30-16:45	Oral presentation 8: Design and Implementation of a Student Accommodation Application Using Ionic Framework and AWS Sahil Varma Penmetsa, University of Central Missouri, USA
16:45-17:00	Oral presentation 9: PANGA: A Framework for Threat Knowledge Graph Construction Tianxiang Chen(陈天翔), Nanjing University of Aeronautics and Astronautics, China
17:00-17:15	Oral presentation 10: Less is More- Revisiting the Role of Batch Normalization in Test-time Adaptation Xin Gu(顾昕), Nanjing University of Aeronautics and Astronautics, China
17:15-17:30	Oral presentation 11: Research on layout optimization of warehouse functional area based on EIQ-ABC-SLP method Yashi Wang(王雅诗), Beijing Jiaotong University, China

Poster Presentation/海报展示

Poster Presentation 1: Recommendation Method Based on Multi-task Learning and Graph Collaborative Filtering

Zhimin Wang(汪治敏), Jiangxi University of Finance and Economics, China

Poster Presentation 2: BOANN Bayesian-Optimized Attentive Neural Network for Classification

Xinjin Li, Columbia University, USA

Poster Presentation 3: LSD: Drainage Pipeline Defect Detection Based on Improved YOLOX

Zhiwang Yang(杨志旺), Xiamen University of Technology, China

Poster Presentation 4: LSD: A Spatio-temporal Self-attention Mechanism for Filling and Predicting Missing Values of High-speed Traffic Flows

Bolong lv(吕波龙), Guilin University Of Electronic Technology, China

Poster Presentation 5: Design High-Performance Data Center Network on Regular Topology with Greedy Connection

Deshun Li (李德顺), Hainan University, China

Poster Presentation 6: Event-based Detection and Tracking

Mi Liu(刘沫), Guangzhou City University of Technology, China

Poster Presentation 7: Finding (α, β, k) -community on Bipartite Graph

Zhengyu Hua(华征宇), Nanjing University of Science and Technology, China

Poster Presentation 8: Design of a Cross-Heterogeneous Hardware Computility Scheduling Platform for Heterogeneous Computing Systems

Jun Chai (柴俊), Hangzhou Applied Acoustics Research Institute, China

Poster Presentation 9: An Industrial Internet cloud-edge collaborative Scheme and Evaluation System

Yushen Wang (王玉申), China Mobile Group Jiangsu Co. Ltd, China

Poster Presentation 10: Research on Data Recovery Based on Parsing Log files

Tianze Shen(王超), Shanghai Polytechnic University

Poster Presentation 11: A Performance Prediction Model for Newly Enrolled University Students Based on the Fusion of K-Means and LightGBM Algorithms

Linxin Zhang(沈天泽), Jinan university, China

Poster Presentation 12: Unknown Abnormal Sound Recognition Based on Autoencoder

Chenyi Zhao (赵晨伊), COMAC Shanghai Aircraft Design and Research Institute, China

Poster Presentation 13: Underwater Acoustic Propagation Models with Transformers

Jiang Cheng (蒋丞), Hangzhou Institute of Applied Acoustics, China

Poster Presentation 14: Discovering K-Core-Truss on Multilayer Graphs

Licheng Zhuo(卓利澄), Nanjing University of Science and Technology, China

Poster Presentation 15: Artificial Bee Colony Algorithm with Dynamic Dimension Search

Meiyu Wang(王美玉), Shenyang Jianzhu University, China

Poster Presentation 16: Prediction of Ocean Current Velocity in the Western Pacific Ocean Based on EEMD-SSA-BiLSTM Model

Sheng Du(杜晟), Shandong University of Science and Technology, China

Poster Presentation 17: Feature Modulation and Aggregation Network for Efficient Image Super-Resolution

Hanjia Wei(魏涵佳), Xidian University, China

Poster Presentation 18: Digital Test Platform of Train Control System Based on Distributed Hybrid Cloud Platform

Zhaoyang Qiu(邱兆阳), China Railway Signal and Communication Research and Design Institute Group Co Ltd, China

Poster Presentation 19: Low-code platform based on graphical process logic orchestration

Yangkang Wei(卫扬康), Henan University, China

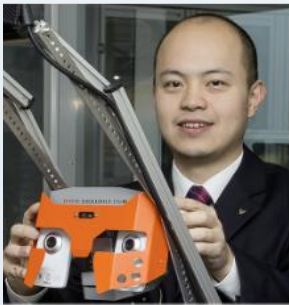
Poster Presentation 20: The Application Framework of the Generative Large Language Model in the Industrial Field

Lei Yang(杨磊), ZJU-Hangzhou Global Scientific and Technological Innovation Center Hangzhou, China

Poster Presentation 21: Algorithm for Student Behavior Detection Based on YOLOv8Helong

Jiang(姜贺龙), Southeast university, China, China

Keynote Speech 1



Prof. Hui Liu

Central South University, China

Biography:

Liu Hui is a professor at the level of Second-Class Professor at Central South University and a doctoral supervisor, with dual doctoral degrees from both China and Germany. He mainly engages in research in artificial intelligence, robotics, and data science and technology. He currently serves as the Deputy Dean of the School of Transportation Engineering at Central South University. Prof. Liu has been recognized as a National Top Youth Talents (2020), a "Leading Talent in Technological Innovation for Young and Middle-aged Individuals" by the Ministry of Transport of China (2023), a "Outstanding Young Scholar in Frontier Engineering" by the Chinese Academy of Engineering (2023), and has received the "Outstanding International Engineer Award" from the Royal Academy of Engineering (UK) (2022). He is also a participant in the "China-Europe Talent Program" by the National Natural Science Foundation of China and the European Commission (2021), a Clarivate Analytics Highly Cited Researcher (2023; ResearcherID: B-1690-2013), and has been continuously listed as a highly cited scholar in China by Elsevier. He is included in the Stanford University list of the top 2% of scientists worldwide (ranked in the top 0.065%). He has published an English monograph titled "Smart Cities" as the first author, which won the China New Development Awards from Springer Nature (2023). He also published the monograph "Smart Metro Station Systems" as the first author, which was selected as a key publication by the National Press and Publication Administration of China for the "14th Five-Year Plan." Prof. Liu has led four National Natural Science Foundation projects, projects under the National Key Research and Development Program, the Excellent Young Researchers Fund from the Federal Ministry of Education and Research in Germany, and major funds from the UK Department for Transport. He is the leader of the "Train Operation Control and Intelligent Service Support" team at the 2011 Collaborative Innovation Center of Central South University and the leader of the "Rail Transit Transport Robotics" innovation-driven youth team at the same institution. His H-index is 65.

Speech Title:

Keynote Speech 2



Prof. Nianyin Zeng

Xiamen University, China

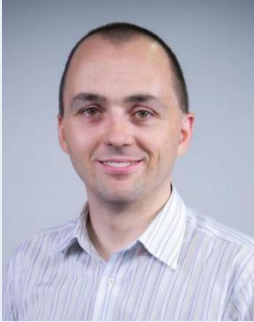
Biography:

Nianyin Zeng is currently a Professor in the Department of Instrumental and Electrical Engineering at Xiamen University. From September 2017 to August 2018, he held the prestigious position of ISEF Fellow sponsored by the Korea Foundation for Advanced Studies, while also serving as a Visiting Professor at the esteemed Korea Advanced Institute of Science and Technology (KAIST). Dr. Zeng currently holds or has held the position of Associate Editor for Neurocomputing Frontiers in Medical Technology and Evolutionary Intelligence, as well as serving on the Editorial Board for Computers in Biology and Medicine, Biomedical Engineering Online, Mathematical Problems in Engineering, Journal of Electronics & Information Technology, and Journal of Image and Graphics. Additionally, he has acted as a Guest Editor for Frontiers in Neuroscience and Frontiers in Medical Technology. Furthermore, he has served as a program committee member for several prestigious international conferences focused on intelligent data analysis such as EAI ICMTEL, ACAIT, ICCSE. His current research interests encompass intelligent data analysis, machine learning, computer vision, computational intelligence, system modeling, and their applications. He has authored over 100 research papers in reputable journals and conferences as well as obtained 18 patents. According to Google Scholar, his publications have been cited more than 10,000 times with an H-Index of 42.

Speech Title:

Handling Dynamic Behaviors in Environments via the Evolutionary Transfer Optimization Technique

Keynote Speech 3



Prof. Philippe Fournier-Viger

Shenzhen University, China

Biography:

Philippe Fournier-Viger (Ph.D) is distinguished professor at Shenzhen University (China). Five years after completing his Ph.D., he came to China in 2015 and became full professor after receiving an important talent title from the National Science Foundation of China. He has published more than 400 research papers related to data mining algorithms for complex data (sequences, graphs), intelligent systems and applications, which have received more than 15,000 citations (H-Index 63 - Google Scholar). He is the founder of the popular SPMF data mining library, offering more than 250 algorithms to find patterns in data, cited in more than 1,000 research papers. He is former associate editor-in-chief of the Applied Intelligence journal and has been keynote speaker for over 30 international conferences and co-edited four books for Springer. He appears in the top 2% of researchers for scientific influence in the Stanford list, and is a Elsevier «Highly Cited Chinese Researcher» (2022). Website: <http://www.philippe-fournier-viger.com> .

Speech Title:

Advances and Challenges for the Automatic Discovery of Interesting Patterns in Data

Keynote Speech 4



Prof. Xiangjie Kong

Zhejiang University of Technology, China

Biography:

Xiangjie Kong, Professor of Zhejiang University of Technology, winner of Zhejiang Outstanding Youth Fund, Hangzhou Qianjiang special Expert, Canal Young Scholar of Zhejiang University of Technology, founder and director of Urban Science and Social Computing Laboratory, CCF outstanding member, IEEE Senior member. In addition, he is a member of ACM, a member of the American Scientific Research Honor Society (Sigma Xi), an executive member of the Information System Professional Committee of China Computer Society, an executive member of the Pervasive Computing Professional Committee of China Computer Society, a member of the Parallel Intelligence Professional Committee of China Automation Society, and a member of the Affective Computing Professional Committee of Chinese Information Society, etc. He is the Editor and Guest Editor of more than 10 international SCI journals. With a Google Academic H Index of 51, he has published/accepted more than 200 papers in international journals or conferences such as IEEE TKDE, IEEE TMC, IJCAI, ACM Computing Surveys (more than 180 of which are SCI indexed papers), He edited "Computer Network" and wrote "Introduction to Big Data" and "Advanced Computer Network" textbooks as deputy editor, and was authorized more than 30 invention patents. Research fields: urban computing, social computing, knowledge management, etc..

Speech Title:

Spatio-Temporal Graph Learning based Vehicular Trajectory Data Analysis and Applications

Invited Speech 5

**Assist. Prof. Yuqi Chen**

Shanghai University of Science and Technology, China

Biography:

Dr. Yuqi Chen is currently a tenured professor at Shanghai University of Science and Technology and head of the AS3R Laboratory. In 2012, he was admitted to the Computer joint class of South China University of Technology and received his bachelor's degree three years later. He then went to Singapore University of Technology and Design to study for a PhD under Professor Sun Jun. After obtaining his doctorate in 2019, he continued to follow Professor Sun Jun to Singapore Management University for academic research. In April 2022, he joined the System Security Center of the School of Information Science and Technology of Shanghai University of Science and Technology full-time.

Speech Title:**Low-light image enhancement using cell vibration model**

Instructions for Presentations

Oral Presentation

1. Timing: a maximum of 15 minutes total, including speaking time and discussion. Please make sure your presentation is well timed.
2. There is no uniform template for PPT, you can design and make your own.
3. Oral speakers should enter the ZOOM conference room from 11:00-11:30 a.m. on October 16 for equipment testing. Ensure that the microphone, slide show, and camera work properly. Each person has 3 minutes to test.

Poster Presentation

1. Posters are usually A1 or 16:9 in size, you can make through PowerPoint. Then send the finished file (HD JPG or PPTX format) to iccbase@163.com before 12:00 on October 16th.
2. When sending an email, you need to name the attached file as "Serial number + your name", such as "1-Yimin Wang Zhimin Wang".
3. There is no uniform template for Poster, you can design and make your own. The reference link is: <https://mp.weixin.qq.com/s/2OICCVv2JU-Jc5Hqp8PehA>

Notice for Participants

欢迎各位专家学者们参加第三届 IEEE 云计算、大数据应用与软件工程国际学术会议 (CBASE 2024) ，为了您在会议期间方便顺利，请注意以下事项：

Welcome all leaders and researchers to the 3rd International Conference on Cloud Computing, Big Data Application and Software Engineering . For your convenience during the conference, please pay attention to the following concerns:

线上参会：

1. 会议将通过线上形式召开，请提前先下载 **ZOOM** 最新版。
下载链接：<https://zoom.us/download> （复制到浏览器中打开链接）
2. 参会者可根据参会日程，输入对应的会议 ID 和密码，进入线上会议室。

ZOOM 会议室：**** **密码：******

Zoom 链接：*****

*进入会议室后，请将名称改为自己的姓名拼音+学校简称；

*口头汇报人员请至少提前 1 个小时进入会议室等候，开始演讲时请打开摄像头。

Online Conference

1.The online conference will be held on **ZOOM Meeting**. To participate online, please download the latest version of ZOOM first.

Download link: <https://zoom.us/download>

2.You can access the online conference room by the following way: (**Please use your real name in the meeting room.**)

Input the ZOOM Meeting ID and the Password respectively, which is shown on the conference agenda.

Camille Shi | 时老师

联系手机(微信同号): 19396491277

咨询邮箱: iccbase@163.com

大会官网: www.ccbase.org



时老师微信



CBASE大会官网