

**International Forum on Low-carbon
and Green Urbanization 2022**

2022年绿色低碳城市化国际论坛

**Conference Manual
会议手册**

**Dec 03~04, 2022 Wuhan, China
2022年12月3日~4日 中国武汉**

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01. Conference Introduction

The forum LCGU-22 aims to discuss sustainable and smart development of urban area with increasing resource shortage and pollution, giving special attention to water pollution control, energy resource assessment, green building construction, and innovative functional building materials under background of carbon emission reduction. There is a growing demand for the intelligent management and recovery of resource. With these advanced processes, models and materials, traditional technologies may be improved for livable environment and green city in the future.

The theme of the forum is Advanced technologies and materials for water environment protection, energy assessment and building carbon neutralization in the process of urban sustainable development, including the following three sessions:

Session A: Water pollution remediation and energy resources management

Session B: Eco-city and green building

Session C: Sustainable and functional building materials

一、会议简介

2022 年绿色低碳城市化国际论坛（LCGU-22）旨在讨论资源短缺和污染日益严重情况下城市可持续智能发展，重点关注双碳目标下水污染控制、生态城市规划、绿色建筑设计、新型功能建筑材料等领域。随着资源优化管理及再生需求日益增大，通过工艺、模型和材料创新，进一步改进传统技术，推动未来宜居环境和绿色城市建设。

会议主题为：城市可持续发展过程中水环境保护、能源评估及建筑碳中和先进技术和材料。

会议设置三个分论坛，包括：

分论坛一：水污染治理与能源评估

分论坛二：生态城市与绿色建筑

分论坛三：可持续功能性建筑材料

02. Conference Organization

Organizers:

Wuhan University of Technology

Hubei Key Laboratory of Roadway Bridge and Structure Engineering

Hubei Green and Intelligent Building Engineering Technology Research Center

Co-organizers:

State Key Laboratory of Silicate Materials for Architectures

Journal of Wuhan University of Technology

Wuhan University

Huazhong University of Science and Technology

Lanzhou University of Technology

Academic Committee:

Chairman: *Wang QK*

Vice Chairman: *Wu B Xu DS Jiang YH*

Committee Members (In alphabetical order by the last name)

*Cao HY Chen B Chen MZ Chen Q Chen W Chen YX Cheng J
Cheng Z Deng SH Fan XC He YE Hu CL Hu J Huang B Huang Y
Jiang YH Jiang Y Kang JT Kang X Li CC Li K Li KM Li Q Lin XH
Liu G Liu MY Liu QT Luo Y Luo YQ Rui R Sang WJ Shao SL
Shen WG Shui ZH Sun T Tang P Tang XH Tu JW Wang DH
Wang HY Wang W Wang XQ Wei ZQ Wu Bin Wu SP Wu YJ Xiao Y
Xie WP Xie YX Xu DS Xu X Xu S Xu ZY Yu J Yu QL Yu R
Yuan B Zhang C Zhang HN Zhang JR Zhang Q Zhang SY Zhang XL
Zheng Y Zhou A Zhou JL*

Organizing Committee

Chairman: *Xu DS*

Executive Chairman: *Zhang XL*

Vice Chairman: *Jiang Y Wu YJ Gao X Zhou XL*

Committee Members (In alphabetical order by the last name)

*Chen Q Shan XF Hu J Ji QF Li PP Liu CX Meng F Pan L Tang
XH Wang LQ Xu S Yu ZC Zhang LX*

Secretaries: *Chen Q Pan L Zhou XL*

二、组织机构

(一) 举办单位

主办单位：武汉理工大学
道路桥梁与结构工程湖北省重点实验室
湖北省绿色智能建筑工程技术研究中心

协办单位：硅酸盐建筑材料国家重点实验室
武汉理工大学学报
武汉大学
华中科技大学
兰州理工大学

(二) 学术委员会

主 席：王乾坤
副 主 席：吴斌 徐东升 姜应和
委 员（按姓氏拼音排序）

曹鸿猷	陈 波	陈美祝	陈 琼	陈 伟	陈宇轩	程 静	程 壮
邓时海	范小春	何玥儿	胡传林	胡 俊	黄 斌	黄 赟	姜应和
姜 宇	康俊涛	康 鑫	李传成	李 凯	李坤明	李 秋	林向晖
刘 刚	刘沐宇	刘全涛	罗 忆	罗勇强	芮 瑞	桑稳姣	邵森林
沈卫国	水中和	孙 涛	唐 佩	唐新华	涂建维	汪大海	王弘宇
王 伟	王协群	魏智强	吴 斌	吴少鹏	吴永佳	肖 月	谢伟平
谢泳欣	徐东升	徐 雄	许 实	徐舟影	余 靖	于清亮	余 睿
袁 波	张 冲	张惠宁	张季如	张 倩	张世羊	张翔凌	郑 毅
周 傲	周军莉						

(三) 组织委员会

主 席：徐东升
执行主席：张翔凌
副 主 席：姜 宇 吴永佳 高旭 周希霖
委 员（按姓氏拼音排序）

陈 琼	单晓芳	胡 俊	季群峰	李培鹏	刘晨曦	孟 飞	潘 玲
唐新华	王璐琦	许 实	余泽川	张立霞			

秘书处：
陈 琼 潘 玲 周希霖

03. Conference Schedule 会议议程

Time: 8:30-16:40, Dec 3; 8:50-17:20, Dec 4, 2022

Venue: Wuhan University of Technology

Opening Ceremony and Keynotes (Tencent Meeting ID:381-207-036 Password:367123)

<i>Opening Ceremony</i> Dec 03, Saturday			
8:30-9:00	Welcome address by Prof. Qiankun WANG, Vice Chairman of WUT 武汉理工大学党委副书记王乾坤教授致欢迎辞		
	Address by Prof. Bin WU, Dean of School of Civil Engineering and Architecture, WUT 武汉理工大学土木工程与建筑学院院长吴斌教授致辞		
<i>Opening Keynotes</i> Dec 03, Saturday			
<i>Time</i> 时间	<i>Presenter</i> 报告人	<i>Presentation Title</i> 报告题目	<i>Department</i> 单位
9:00-9:45	How Yong NG (黄浩勇)	<i>Strategies and Technologies to Ensure Water Supply Security to Mitigate the Impact of Climate Change</i> 气候变化下确保供水安全的策略及技术	Beijing Normal University 北京师范大学
9:45-10:30	Zhiqiang (John) ZHAI (翟志强)	<i>Net Zero Energy Building: Challenge and Opportunities</i> 净零能耗建筑：机遇与挑战	University of Colorado Boulder 美国科罗拉多大学
10:30-11:15	Qingliang YU (于清亮)	<i>Recent research progress on impact resistance of sustainable ultra-high performance concrete</i> 生态超高性能混凝土的抗冲击性能研究进展	Wuhan University 武汉大学

A: Water pollution remediation and energy resources management (Tencent Meeting ID:381-207-036 Password:367123)

<i>Host: Yu JIANG, Xinhua TANG Dec 03, Saturday</i>			
<i>Time</i> 时间	<i>Presenter</i> 报告人	<i>Presentation Title</i> 报告题目	<i>Department</i> 单位
13:40-14:00	Junli WANG (王军利)	<i>Total PFAS analysis with a Modified Total Organic Carbon (TOC) analyzer</i> 使用改性总有机碳分析仪分析总全氟或多氟烷基化合物研究	<i>University of California, Riverside</i> 加利福尼亚大学河滨分校
14:00-14:20	Shihai DENG (邓时海)	<i>Efficient bio-refractory industrial wastewater treatment with an MBR strengthened by micro-scale ZVI@GAC galvanic-cells</i> 微型 Fe-C 原电池原位强化膜生物反应器高效处理难生化工业有机废水	<i>Xi'an Jiaotong University</i> 西安交通大学
14:20-14:40	.Yu JIANG (姜宇)	<i>Start-up and microbial metabolism of Aerobic granular sludge systems for treating pharmaceutical wastewater</i> 好氧颗粒污泥系统处理制药废水的启动过程及微生物代谢功能研究	<i>Wuhan University of Technology</i> 武汉理工大学
14:40-15:00	Chuansheng WANG (王传胜)	<i>Vibrating Membrane Bioreactor for Fouling Control and Performance Enhancement during Domestic Wastewater Treatment</i> 新型振动膜生物反应器对生活污水提质增效及膜污染控制的影响	<i>National University of Singapore</i> 新加坡国立大学
15:00-15:20	Wei XIANG (向威)	<i>The catalytic oxygen activation mechanisms on the surface of nano copper</i> 基于纳米铜表面催化的氧活化反应机制研究	<i>Central & South Design Engineering Design and Research Institute Co.Ltd.</i> 中国市政工程中南设计研究总院有限公司
15:20-15:40	Paul Heung-fai LAM (林向晖)	<i>The development of bio-inspired folding blades for enhancing the performance of wind turbines</i> 一种提高风力发电机的性能的仿生折叠叶片	<i>City University of Hong Kong</i> 香港城市大学
15:40-16:00	Yongxin XIE (谢泳欣)	<i>The difference between indoor and outdoor thermal comfort and ideas for improving outdoor thermal comfort</i> 室内外热舒适的区别与改善室外热舒适的思路	<i>Hong Kong Polytechnic University</i> 香港理工大学

16:00-16:20	Wei WANG (王伟)	<i>From Building to City: Building Energy Saving based on Urban Micro-climate and Energy Model</i> 从建筑到城市：基于城市微气候和能源模型的建筑节能	Southeast University 东南大学
16:20-16:40	Mou Leong Tan	<i>The use of CORDEX-SEA data to project hydro-climatic extremes in Malaysia</i> 利用 CORDEX-SEA 数据预测马来西亚的极端水文气候	Universiti Sains Malaysia 马来西亚理科大学

B: Eco-city and green building (Tencent Meeting ID:491-539-914 Password: 221248)

<i>Host: Yongjia WU, Xilin ZHOU Dec 04, Sunday</i>			
<i>Time</i> 时间	<i>Presenter</i> 报告人	<i>Presentation Title</i> 报告题目	<i>Department</i> 单位
8:50-9:10	Meng CAI (蔡萌)	<i>Modeling High-Resolution Urban Carbon Emissions for Two Mega Urban Regions in China: An Open Data Approach</i> 模拟中国两个特大城市地区的高分辨率城市碳排放：一种基于开放数据的方法	Wuhan University 武汉大学
9:10-9:30	Qunfeng JI (季群峰)	<i>Influence of neighbourhood urban form on residential energy use and carbon emissions: an integrated approach</i> 街区城市形态对居住建筑能耗和碳排放的影响：一种集成研究方法	Wuhan University of Technology 武汉理工大学
9:30-9:50	Kunming LI (李坤明)	<i>Thermal comfort interventions of landscape elements in a humid and subtropical residential area in China</i> 中国湿润亚热带居住区景观要素的热舒适干预研究	Henan University of Technology 河南工业大学
9:50-10:10	Yuquan XIE (谢育全)	<i>Long-Term Prediction for evaluating outdoor thermal comfort around Buildings in Summer Season Using a Multi-layer Neural Network Improved by Genetic Algorithm and Backpropagation Algorithm</i> 利用遗传算法和反向传播算法改进的多层神经网络评估夏季建筑物周围室外热舒适度的长期预测	Hunan University 湖南大学
10:10-10:30	Chong ZHANG (张冲)	<i>Smart Data-Driven Building Management Framework for Environmental and Sustainability Applications</i> 面向低碳智慧节能建筑的数据驱动人工智能技术研究进展	The Hong Kong Polytechnic University 香港理工大学

10:30-10:50	Yongqiang LUO (罗勇强)	<i>Study on building integrated photovoltaic thermoelectric envelope system</i> 光伏热电建筑一体化围护结构研究	<i>Huazhong University of Science and Technology</i> 华中科技大学
10:50-11:10	Yueer HE (何玥儿)	<i>Research progress on climate-sensitive urban design for sustainable, low-carbon cities</i> 面向可持续低碳城市的气候敏感型城市设计研究进展	<i>Shenzhen University</i> 深圳大学
11:10-11:30	Qiong CHEN (陈琼)	<i>Research on model predictive control for energy efficiency of radiant heating systems</i> 基于模型预测控制的辐射供暖系统节能优化研究	<i>Wuhan University of Technology</i> 武汉理工大学

C: Sustainable and functional building materials (Tencent Meeting ID:491-539-914 Password: 221248)

Host: Kai LI, Bo QU Dec 04, Sunday			
Time 时间	Presenter 报告人	Presentation Title 报告题目	Department 单位
14:00-14:20	Kai LI (李凯)	<i>Understanding on the mechanism of water transport in mortar by a lattice Boltzmann modeling</i> 基于晶格玻尔兹曼方法的砂浆水分传输机制研究	<i>Hunan University</i> 湖南大学
14:20-14:40	Jing YU (余靖)	<i>Sustainable C45 concrete with ultrahigh-volume Limestone-Calcined Clay</i> 含大掺量石粉-煅烧黏土的生态 C45 混凝土	<i>Sun Yat-sen University</i> 中山大学
14:40-15:00	Ao ZHOU (周傲)	<i>Mechanical performance and environmental potential of low-carbon concrete with engineering sediment waste for sustainable built environment</i> 含工程废渣低碳混凝土的机械性能和环境效益	<i>Harbin Institute of Technology, Shen Zhen</i> 哈尔滨工业大学 (深圳)
15:00-15:20	Bo QU (曲波)	<i>The use of trisodium citrate dihydrate in NaOH-activated slag cement</i> 柠檬酸钠在氢氧化钠激发矿渣水泥中的应用	<i>China University of Geosciences, Wuhan</i> 中国地质大学 (武汉)
15:20-15:40	Chuanlin HU (胡传林)	<i>Fundamental Research and Application of Concrete Micromechanics</i> 混凝土细观力学的基础研究与应用	<i>Wuhan University of Technology</i> 武汉理工大学

15:40-16:00	Rui YU (余睿)	<i>Functional Ultra-High Performance Concrete (UHPC): From design to application</i> 功能型超高性能混凝土 (UHPC)：从设计到应用	<i>Wuhan University of Technology</i> 武汉理工大学
16:00-16:20	Yuxuan CHEN (陈宇轩)	<i>Effect of silica aerogel on thermal and acoustic insulation of geopolymer foam concrete: Towards the role of different particle size</i> 二氧化硅气凝胶对地聚合物泡沫混凝土隔热和隔音性能的影响：颗粒尺寸的作用	<i>Wuhan University</i> 武汉大学
16:20-16:40	Weibai LI (李伟柏)	<i>Multidisciplinary topology optimization methods and applications</i> 多学科结构拓扑优化方法及应用	<i>Swinburne University of Technology</i> 斯威本科技大学
16:40-17:00	Shi XU (许实)	<i>Investigation of a hybrid self-healing system in porous asphalt</i> 基于电磁感应加热与微胶囊的复合型自修复透水沥青混合料性能研究	<i>Wuhan University of Technology</i> 武汉理工大学
17:00-17:20	Xiong XU (徐雄)	<i>Chemical upcycling of waste PET into sustainable asphalt pavement for quality improvement</i> 用于生态沥青路面性能提升的化学增级回收 PET	<i>Wuhan Institute of Technology</i> 武汉工程大学

04. Invited Experts and Introduction 特邀专家简介

Keynote Speaker

How Yong NG (黄浩勇)



Dr. How Yong NG is a Changjiang Chaired Professor at the Beijing Normal University at Zhuhai and an Adjunct Professor in the Department of Civil and Environmental Engineering, National University of Singapore (NUS). He was the Director of NUS Environmental Research Institute and the Director of the Sembcorp-NUS Corporate Laboratory.

Professor Ng's core research interest is in sustainable water management, focusing on biological treatment technologies, membrane bioreactor and microbial electrochemical sensor for water reuse and resource recovery. He has contributed to more than 450 publications in refereed international journals and conference papers. He is a Fellow of the Academy of Engineering Singapore and a Fellow of the International Water Association (IWA). He serves as an Associate Editor of *Water Research* and as an Editor of the *Water Reuse*. He is also the Vice-Chair of the Management Committee of the IWA Specialist Group on Membrane Technology and a member of the IWA Publication Committee. He is the Immediate-Past President of the Environmental Engineering Society of Singapore.

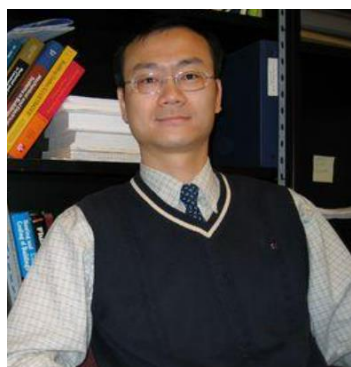
长江学者讲席教授，新加坡工程院院士，国际水协会士。现工作于北京师范大学珠海校区自然科学高等研究院水科学研究中心，水污染控制领域顶级期刊 *Water Research* 副主编，国际水协 *Water Reuse* 主编，国际水协膜技术专家委员会常务副主席。曾任新加坡国立大学教授，新加坡国立大学环境研究院院长。

黄院士致力于膜法污水处理与资源化研究，在膜污染理论与控制技术、膜分离新工艺构建等方面取得多项突破。其开展的用于膜污染控制的群体感应猝灭 (quorum quenching) 研究，极大地促进了水处理技术创新；他推动了新加坡污水处理厂的膜生物反应器实施，在技术转化工作方面贡献突出。主持科研课题近 40 项，经费超过 4 亿元人民币，发表高水平 SCI 期刊论文 150 余篇，国际学术会议论文 250 余篇，编著与参编学术专著 10 余部，申请/授权国际专利 8 项。

其主要从事城市排水、海绵城市、水环境治理、城市内涝治理方面的研究和规划设计，先后参与多个重要文件起草和多个标准规范编制，负责南宁、海口、武汉、厦门、石家庄、沈阳、银川等多个城市相关项目。

Keynote Speaker

Zhiqiang (John) ZHAI (翟志强)



Dr. John ZHAI is a professor in the Department of Civil, Environmental and Architectural Engineering (CEAE) at University of Colorado at Boulder (UCB), who won the "Changjiang Scholar" Professorship Award in 2016. He has a unique and integrated background in both Mechanical and Architectural Engineering with an Engineering Doctor degree in Fluid Mechanics (Tsinghua University, 1999) and a Ph.D. in Building Technology (MIT, 2003). Dr. Zhai is a Fellow of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the International Society of Indoor Air Quality and Climate (ISIAQ), and the International Building Performance Simulation Association (IBPSA). He serves as an editor or editorial board member for five world famous SCI journals in the field of building energy and environment. As a chief researcher, he has finished a series academic and consulting projects and published more than 200 articles, which have been cited more than 8000 times.

清华大学博士，美国麻省理工学院博士，美国科罗拉多大学终身教授，中国教育部“长江学者”讲座教授，美国暖通制冷空调工程师协会 (ASHRAE) 会士 (Fellow)，国际室内空气质量科学院 (ISI) Q 会士 (Fellow)，国际建筑性能模拟仿真协会 (IBPSA) 会士 (Fellow)，同时担任世界建筑能源环境领域 5 大著名 SCI 期刊的副主编或编委，美国洛基山研究院和日本振兴会高级研究员，天津大学、武汉理工大学等高校客座教授。主要研究领域：可持续性绿色建筑技术、城市能源与环境（节能环保）、室内外空气品质和健康。作为首席研究员，完成了一系列学术研究和咨询项目，在知名期刊和会议上发表 200 余篇论文，被引 8000 余次。

Keynote Speaker

Qingliang YU (于清亮)



Intro: Dr. Qingliang YU is the vice dean, professor and doctoral supervisor of School of Civil Engineering, Wuhan University and the associate professor of Eindhoven University of Technology. He has received the prestigious "the 1000 Talents Plan for Young Talents" award in China. He currently serves as the Editor-in-Chief of Journal of Building Engineering, editorial board member of Construction and Building Materials and associate editor of Journal of Sustainable Cement-Based Materials. His research interests focus on cement chemistry, high-performance intelligent building materials, functional ecological building materials. He has applied for 7 invention patents and published 3 monographs (chapters). He published more than 140 journal papers (125 as SCI papers) and over 90 international conference papers. He presides several scientific research projects including High-level Talent Introduction Project of Wuhan University, General Project of National Natural Science Foundation of China and Industry-University-Research project, etc.

武汉大学土木建筑工程学院副院长，教授，博士生导师，中组部青年千人，荷兰埃因霍温理工大学兼职副教授。Journal of Building Engineering 主编，Construction and Building Materials 编委，Journal of Sustainable Cement-Based Materials 副主编。主要从事水泥化学、高性能智能建筑材料、功能性生态建筑材料等方向的研究，截止到目前共申请 7 项发明专利，发表研究成果专著（章节）3 部，140 余篇期刊论文（其中含 125 篇 SCI 期刊论文），90 余篇国际会议论文。目前主持武汉大学高层次人才引进项目，国家自然科学基金面上项目，企业合作产学研等科研项目。

Invited Speaker

A1 Junli WANG (王军利)



Junli WANG is a postdoc at University of California, Riverside. He earned his PhD degree at University of Nevada, Reno, where he focused on thermal decomposition of PFAS and total PFAS analysis. Before that, he studied at Harbin Institute of Technology for his master degree. He received his bachelor's degree in Wuhan University. He is interested in environmental chemistry, analytical chemistry, and PFAS issues.

本科毕业于武汉大学，硕士毕业于哈尔滨工业大学，博士毕业于内华达大学里诺分校，其博士期间研究方向为全氟或多氟烷基化合物(PFAS)的热降解及分析。目前在加利福尼亚大学河滨分校进行博士后研究工作，主要研究方向为环境化学、分析化学和全氟或多氟烷基化合物的问题。

A2 Shihai DENG (邓时海)



Dr. Deng graduated from Beijing Jiaotong University with B.Eng in 2012 and Ph.D in 2017. He joined the National University of Singapore as a postdoctoral research fellow in 2018. From Nov 2021 onwards, he worked at Xi'an Jiaotong University as a Research Professor, receiving the support of the Young Talent Support Plan. He specializes in environmental functional materials (EFM) and EFM-based advanced wastewater treatment technologies. He published more than 60 papers in various journals, including Water Res, ES&T and Chem Eng J. The EFM and technologies he developed have been successfully applied in low C/N ratio wastewater treatment, water body remediation and industrial wastewater reclamation. He is currently serving as associate editor of Front Env Sci and guest editor/reviewer for a number of journals. He was honored Vebleo Fellow in 2022 for his contributions to EFM and EFM-based technology development.

现任西安交通大学特聘研究员，于 2012 年及 2017 年在北京交通大学获得本科与博士学位，2018 年于新加坡国立大学从事博士后研究工作，2021 年入选西安交通大学“青年拔尖人才计划”并任职特聘研究员，主要研究方向为环境功能材料及基于环境功能材料的先进水处理技术。邓时海研究员在 Water Res、ES&T、Chem Eng J 等权威国际期刊发表论文 60 余篇，现任 Front Env Sci 副主编，担任多部 SCI 期刊特邀编辑或审稿人，并于 2022 年入选国际科学组织 Vebleo 协会会员。

A3 Yu JIANG (姜宇)



Dr. Yu JIANG is currently a research professor at Wuhan University of Technology. She gained her bachelor's degree and PhD degree at Wuhan University. Her postdoctoral research was conducted at National University of Singapore. Her research interests focus on biological treatment and functional materials for water and wastewater treatment. She has presided/participated in more than 10 scientific research projects. She has published nearly 30 SCI papers (18 as first author) which have been cited over 800 times. She serves as reviewers for several SCI journals, such as *Water Research* and *Journal of Hazardous Materials*.

现任武汉理工大学特任研究员（教授），本科及博士毕业于武汉大学，随后于新加坡国立大学进行博士后研究工作。主要从事生物法处理污水及工业废水、水处理功能材料制备及应用等方面的研究。主持/参与科研项目 10 余项，发表 SCI 期刊论文近 30 篇（其中第一作者 18 篇），总被引次数 800 余次，以第一发明人获国家发明专利授权 1 项，并担任 *Water Research*, *Journal of Hazardous Materials* 等水处理行业国际知名 SCI 期刊审稿人。

A4 Chuansheng WANG (王传胜)



Dr. Chuansheng WANG graduated from the National University of Singapore with Ph.D. (Environmental Engineering) in 2022 advised by Prof. Ng How Yong, and received his MSc (Environmental Science) at Peking University in 2018 and BEng. (Environmental Engineering) at Huazhong Agricultural University in 2015, respectively. Currently, he worked as post-doctoral research fellow in environmental engineering at National University of Singapore from Aug, 2022. He has published several first-authored papers in *Water Research*, *ACS EST water* (Journal Cover), *Resources, Conservation and Recycling*, and *Bioresource Technology*, etc. and acted as the member of International Water Association (IWA) and reviewer for IWA publishing journals, including *Water Research* and *Water Reuse*. His main research interest is in wastewater treatment and resource recovery via membrane-based biotechnology, focusing on novel membrane bioreactor and specialized microbes. As anaerobic technology could help reduce energy demands and recover biofuel production, his research also focuses on biofuel and value-added products recovery via decarbonized wastewater treatment process.

2015 年获华中农业大学环境工程专业学士学位，2018 年获北京大学环境科学硕士学位，2022 年于新加坡国立大学环境工程专业获得博士学位。目前，王传胜博士于 2022 年 8 月起在新加坡国立大学从事环境工程博士后研究，其在 *Water Research*, *ACS EST water*, *Resources, Conservation* 和 *Recycling*, *Bioresource*

Technology 等期刊上发表了多篇第一作者论文，并担任国际水协会(IWA)会员和 Water Research, Water Reuse 等 IWA 出版期刊审稿人，主要研究方向是污水处理和资源回收，重点研究新膜生物反应器的膜污染控制和污水提质增效，以及特征微生物的低碳减排污水处理过程和厌氧发酵产能。

A5 Wei XIANG (向威)



Dr. Wei XIANG received his bachelor's degree from Wuhan University of Technology, and conducted his PhD and postdoctoral research at Huazhong University of Science and Technology, during which he mainly worked on Fentonian catalysis of iron/copper systems. He has released more than 20 papers in international journals in recent years, including 8 SCI papers as the first author (and co-first), and has received funds from the National Natural Science Foundation for Young Scholars of China and the China Postdoctoral Science Foundation (second class). Wei Xiang is currently working in Central & South Design China Municipal Engineering Design and Research Institute Co.Ltd. His main research interests focus on industrial wastewater treatment process.

本科毕业于武汉理工大学，其后进入华中科技大学攻读博士学位和完成博士后研究，期间主要开展了铁系/铜系类芬顿催化技术方面的工作。近年来在国际期刊上发表相关论文二十余篇，其中以第一作者（以及共同第一）身份发表 SCI 期刊论文 8 篇，已获得中国自然科学基金青年基金和中国博士后科学基金（二等）资助。目前，汇报人就职于中国市政工程中南设计研究总院有限公司，主要方向为工业废水处理工艺研究。

A6 Paul Heung-fai LAM (林向晖)



Dr Paul Heung-fai LAM is currently associate professor in the Department of Architecture and Civil Engineering at the City University of Hong Kong. Dr Lam is currently the Associate Editor of Engineering Structures. Furthermore, Dr Lam serves as an Editorial Board Member of 4 other journals. Dr Lam was awarded the Top 2% most highly cited scientists in Engineering by Stanford University in 2020, 2021 and 2022, The Geneva International Exhibition of Inventions Silver Award on March 2022, The Editor's Featured Paper Award from Engineering Structures (Elsevier) on Aug 2022, The Pengcheng Scholar Chair Professor (鹏城学者讲座教授) in Harbin Institution of Technology, Shenzhen, China, in 2019, The Commendation Merit - Structural Excellence Award from the Hong Kong Institution of Engineers, Structural Division in 2019 and 2021. Dr. Lam has received over HK\$46 million in research grants. According to the Web of Science, Dr Lam has an h-index of 32 (ISI) and 36 (Scopus).

香港城市大学建筑与土木工程系副教授，深圳大学鹏城讲座讲授，土木工程国际顶级期刊 *Engineering Structures* 副主编，连续三年（20 年，21 年，22 年）入选斯坦福大学全球最高引前 2% 学者，曾获日内瓦国际发明展银奖，香港工程师学会结构优秀奖。总计获得 4600 万科研经费，发表 SCI 论文 100 余篇，H 指数 32。

A7 Yongxin XIE（谢泳欣）



Dr. Yongxin XIE is currently a research assistant professor in the Department of Building Environment and Energy Engineering at the Hong Kong Polytechnic University. She received her BEng degree from the South China University of Technology in 2013, Mphil degree from the Hong Kong University of Science and Technology in 2015 and a PhD degree from the HKPolyU in 2020. Her postdoctoral research was conducted at Tsinghua University under the 'Shuimu Scholar Programme' in 2020. Then in 2022, she returned to HKPolyU as a research assistant professor. The focus of her research is on indoor and outdoor thermal environments and thermal comfort. This includes thermal comfort models for urban thermal environment, improvement strategies for outdoor microclimate, and thermal comfort and human behavior.

现任香港理工大学建筑环境和能源应用工程系助理教授，2013 年本科毕业于华南理工大学，2015 年硕士毕业于香港科技大学，2020 年博士毕业于香港理工大学并于清华大学从事博士后工作，随后于 2022 年在香港理工大学任研究助理教授。主要从事室内外热环境与热舒适性研究，包括城市热环境舒适模型、室外微气候改善策略和热舒适性与人类活动研究。

A8 Wei WANG（王伟）



Dr. Wei WANG is currently an associate researcher (associate professor) at Institute of Architectural Technology and Science, School of Architecture, Southeast University, doctoral supervisor and scholar of Excellence in Southeast University. He received his bachelor's degree in Building Environment and Energy Engineering from Huazhong University of Science and Technology in 2014 and his PhD degree in Architecture and Civil Engineering from City University of Hong Kong in 2018. He was a Visiting Scholar in the Department of Building Technology at Lawrence Berkeley National Laboratory in the US from 2017 to 2018. His major research interests include urban energy system planning and design, low-carbon architecture and urban design. He is currently leading the National Natural Science Foundation of China, sub-project of National Key Research and Development Program sub-project, Natural Science Foundation of Jiangsu Province, Nanjing Science and Technology Innovation Project. He has published a total of 34 SCI/SSCI papers, including 23 of first author or corresponding author. He served as youth editorial board

member of SCI Journals in Building Simulation, editorial board member of Journal of Daylighting, review editor of Frontier of Built Environment, founding editor of Urban Studies Section of Current Social Sciences. He was awarded as “Doctor of Mass Entrepreneurship and Innovation” of Jiangsu Province and “Young Talents of Science and Technology Think Tank of China Association for Science and Technology”.

东南大学建筑学院建筑技术与科学研究所，副研究员（副教授），博士生导师，东南大学至善学者；2014 年获得华中科技大学建筑环境与能源工程专业学士学位，2018 年获得香港城市大学建筑学与土木工程学博士，2017 年至 2018 年美国劳伦斯伯克利国家实验室建筑技术部访问学者；主要研究方向为城市能源系统规划设计、低碳建筑与城市设计等开展教学与研究工作；现主持国家自然科学基金，国家重点研发计划子课题，江苏省自然科学基金，南京市科技创新项目，已发表 SCI/SSCI 共 34 篇，其中一作和通讯作者共 23 篇；担任 SCI 期刊 Building Simulation 青年编委，《Journal of Daylighting》编委，《Frontier of Built Environment》Review Editor、《Current Social Sciences》Urban Studies 板块创刊编辑，获评江苏省“双创博士”，“中国科协科技智库青年人才”。

A9 Mou Leong Tan



Dr. Mou Leong Tan obtained his PhD degree in 2016 from Universiti Teknologi Malaysia, had a post-doc research in the National University of Singapore and is now a senior lecturer in Universiti Sains Malaysia. He is a member of International Association for Hydro-Environmental Engineering, International Society for Digital Earth, International Association of Hydrological Sciences and Institution of Geospatial and Remote Sensing Society Malaysia. Dr. Tan’s mainly research interests are hydrology, climatology, remote sensing and GIS.

Dr. Tan has published more than 100 journal papers, with an H-index of 25 and a total citation of about 2500.

于 2016 年在马来西亚理工大学获得博士学位，之后在新加坡国立大学从事博士后研究，现任马来西亚理工大学高级讲师。国际水文环境工程与研究协会(IAHR)、国际数字地球学会、国际水文科学协会、马来西亚地理空间与遥感学会专业协会会员，槟城水观察副主席。其主要从事水文、气候学、遥感与地理信息系统方面研究。目前已发表论文 100 多篇，H 因子 25，他引 2500 余次。

B1 Meng CAI (蔡 萌)



Meng CAI is a lecturer at the School of Urban Design, Wuhan University. She received her PhD from the Chinese University of Hong Kong in 2022. Her research interests include urban form and its influence on urban climate. Since 2017, she has published more than 20 SCI journal articles, which have been cited more than 600 times. Among them, she has published seven SCI papers as the first author or corresponding author in journals such as *Building and Environment*, *Energy and Buildings*, and *Urban Climate*, and two papers have been rated as highly cited articles in *Urban Climate* journal. She won the first prize and the third prize of the 6th Hong Kong University Student Innovation and Entrepreneurship Competition, and was selected to the Young Scientist Summer Program (YSSP) of the International Institute for Applied Systems Analysis (IIASA) in Austria.

武汉大学城市设计学院讲师，2022 年博士毕业于香港中文大学。研究方向为城市形态及其对城市气候的影响。2017 年至今，在国际学术期刊上发表过 20 余篇 SCI 论文，被引六百余次，其中以第一作者或通讯作者身份在 *Building and Environment*, *Energy and Buildings*, *Urban Climate* 等期刊发表 SCI 七篇，两篇论文被评为 *Urban Climate* 期刊的高被引文章。曾获香港大学生创新及创业大赛一等奖及三等奖，入选了奥地利国际应用系统分析学会 (IIASA) 的青年科学家暑期计划 (YSSP)。

B2 Qunfeng JI (季群峰)



Dr. Qunfeng JI earned his PhD from Welsh School of Architecture, Cardiff University, in Architectural Science. Currently, he works at Wuhan University of Technology as a Post-Doc. His studies focus on multi-scale urban form and carbon emissions, as well as building design with zero carbon emissions. The research creatively proposes that the effects of urban form on urban carbon emissions should consider the dynamic interactions of building operation and

the mobility of users from buildings.

武汉理工大学博士后，助理研究员。英国卡迪夫大学威尔士建筑学院建筑科学专业博士。目前研究方向为多尺度城市形态与碳排放研究(集成建筑运行碳排放与交通出行碳排放)、零碳建筑设计研究。研究创造性提出了城市形态对碳排放影响需考虑建筑运行与交通出行动态互动作用机制。

B3 Kunming LI (李坤明)



Kunming LI, associate professor of Henan University of Technology, dean of Department of Architecture, young backbone teacher of Henan University of Technology. Joint cultivation of architecture doctors by South China University of Technology and Tohoku University. The main research direction is the evaluation and improvement of thermal comfort of outdoor space in residential areas. He managed 4 projects, including the open project of the State Key Laboratory of Subtropical Building Science and the key scientific research project of Department of Education in Henan Province. In recent 3 years, he has published 8 SCI and Chinese core journal articles as the first author.

河南工业大学，副教授，建筑系系主任，河南工业大学青年骨干教师，华南理工大学和东北大学联合培养建筑学专业博士。主要研究方向为住区室外空间热舒适评价与改善。主持亚热带建筑科学国家重点实验室开放课题、河南省教育厅重点科研项目等 4 项。近 3 年以第一作者身份发表 SCI 和中文核心论文 8 篇。

B4 Yuquan XIE (谢育全)



Yuquan XIE, School of Architecture and Planning, Hunan University, postdoc, PhD in Architecture by Tohoku University, Japan, supported by CSC. The main research directions include machine learning and outdoor thermal comfort prediction and evaluation. The research findings include the prediction model of outdoor thermal comfort index based on artificial neural network and the evaluation method of outdoor mean radiant temperature influencing factors based on artificial neural network. In recent 3 years, he has published 7 SCI and Chinese core

journal articles as the first author or corresponding author.

湖南大学建筑与规划学院，博士后，日本东北大学建筑学专业博士，受 CSC 公派留学资助。主要研究方向为机器学习和室外热舒适度预测与评价。研究成果内容包括：基于人工神经网络的室外热舒适度指标预测模型以及基于人工神经网络的室外平均辐射温度影响因素评价方法。近三年以第一作者或通讯作者身份发表 SCI 和中文核心论文 7 篇。

B5 Chong ZHANG (张冲)



Chong ZHANG is a Research Fellow at the Department of Building Environment and Energy Engineering, The Hong Kong Polytechnic University. His research interests include green building design, advanced building envelope, data-driven modelling for smart building, etc. In recent years, he has published 22 SCI journal articles. Among them, he has published 15 SCI papers as the first author or corresponding author in journals such as Applied Energy, Energy, Energy and Buildings, and Journal of Building Engineering, etc. His work has been funded by the National Science Foundation of China (NSFC), Hong Kong Scholar Program, First-Class China Postdoctoral Science Foundation, etc (more than 1 million as PI). He was awarded the Youth Outstanding Paper Awards of the 2018 21st National Academic Conference on Heating, Ventilation, Air-conditioning and Refrigeration, and the 2019 Hong Kong Scholar. He served as the IBPSA member, Guest Editor of two SCI journals, and Reviewers of a series prestigious SCI journals such as Applied Energy, Energy and Buildings, Building and Environment, Sustainable Cities and Society, etc.

博士，现任香港理工大学 Research Fellow 研究员职位。研究方向为绿色建筑低碳节能技术、建筑围护结构（外墙、外窗、遮阳）热湿光传递过程及气候设计理论、智能建筑大数据驱动建模与人工智能技术等。迄今已发表学术论文 50 余篇，在国际知名期刊发表 SCI 论文 22 篇，其中以第一作者/作者发表 SCI 论文 15 篇，篇均影响因子 7.81。作为项目负责人，主持国家自然科学基金青年项目、中国博士后科学基金面上 一等资助项目、香江学者计划项目等（主持经费超过 100 万元）。作为项目骨干（排名第五）参与“十三五”国家重点研发计划项目、及以主要完成人参与国家自然科学基金项目 3 项。于 2018 年在全国暖通空调制冷学术年会上，获得《青年优秀论文》奖（入选率 1%左右）。2019 年入选国家人力资源社会保障部启动的“香江学者”人才计划。现为国际建筑性能模拟协会 IBPSA 会员，担任 SCI 期刊 Buildings、Energies 专刊 Guest Editor，为 Applied Energy, Energy and Buildings, Building and Environment, Sustainable Cities and Society 近 10 个 SCI 期刊、及北大核心《建筑科学》等国内外知名学术期刊的审稿人。

B6 Yongqiang LUO (罗勇强)



Yongqiang LUO, lecturer and master supervisor of Huazhong University of Science and Technology, Ph.D. in joint training of Princeton University/Hunan University, Project Investigator of National Natural Science Foundation of China (under research), the Key Laboratory of Deep Geothermal Resources of the Ministry of Natural Resources (under research), and China core research representative of IEA-SHC Task 66 Solar Energy Buildings (under research). Selected as the top 2% of the world's top scientists in the

Stanford University statistics in 2022.

He is also the Youth Editorial Board Member of the International SCI Academic Journal Building Simulation Journal (IF=3.751), Theme Editor/Special Topic Editor/Special Issue Guest Editor of the International SCI Academic Journal Sustainability Journal (IF=3.251), Special Editor-in-Chief of the International SCI Academic Journal Applied Sciences (IF=2.679), International Healthy Architecture Asia Conference "Healthy." Member of the organizing committee of Buildings 2019 (2019.07), he has served as a reviewer for more than 10 international academic journals such as Applied Energy, Energy, Applied Thermal Engineering, and Renewable Energy (2015-present). Participated in the first prize of the 2021 "Huaxia Construction Science and Technology Award": "Research and large-scale application of key technologies for medium and deep buried pipe heat pump heating".

华中科技大学讲师，硕士生导师，美国普林斯顿大学/湖南大学联合培养博士，国家自然科学基金项目负责人（在研），自然资源部深部地热资源重点实验室课题负责人（在研），国际能源署研究任务“太阳能建筑”（IEA-SHC Task 66 Solar Energy Buildings）中国核心研究代表（在研）。入选 2022 年斯坦福大学统计全球前 2% 顶尖科学家。国际 SCI 学术期刊 Building Simulation 期刊（一区期刊 IF=3.751）的青年编委，国际 SCI 学术期刊 Sustainability 期刊（三区期刊 IF=3.251）的主题编辑/专刊客座编辑，国际 SCI 学术期刊 Applied Sciences 期刊（IF=2.679）的专刊客座编辑，国际健康建筑亚洲区会议“Healthy Buildings 2019”组委会成员（2019.07），担任 Applied Energy、Energy、Applied Thermal Engineering、Renewable Energy 等 10 余种国际学术期刊审稿人（2015-至今）。参与获得 2021 年度“华夏建设科学技术奖”一等奖：“中深层地埋管热泵供暖关键技术研究与应用”。

B7 Yueer HE (何玥儿)



Yueer HE is an Assistant Professor of the School of Architecture and Urban Planning at Shenzhen University. Dr. He is the Overseas High-Caliber Personnel in Shenzhen and a National Registered Utility Engineer. Her research interests are energy saving in buildings, indoor and outdoor thermal comfort, urban microclimate and heat island effect mitigation measures.

深圳大学建筑与城市规划学院助理教授，深圳市海外高层次人才，国家注册公用设备工程师。主要研究方向为建筑节能与热舒适、城市微气候与热岛效应缓解措施。

B8 Qiong CHEN (陈琼)



Qiong CHEN, lecturer at the School of Civil Engineering and Architecture, Wuhan University of Science and Technology, Ph.D. in joint training at Chongqing University/Lawrence Berkeley National Laboratory. Her research interests include building energy efficiency, building automation systems, model predictive control (MPC), thermal system modeling and simulation, model order reduction optimization, etc. She has published nine SCI papers as the first author or corresponding author and proposed the model predictive control method for

radiant heating systems in southern areas in China.

武汉理工大学土木工程与建筑学院，讲师，重庆大学/美国劳伦斯伯克利国家实验室联合培养博士。主要研究方向包括建筑节能、建筑设备自动化、模型预测控制（MPC）、热力系统建模及仿真、模型降维优化等，以第一作者或通讯作者身份发表 SCI 论文 9 篇，提出了南方地区辐射供暖系统模型预测控制方法。

C1 Kai LI (李 凯)



Dr. Kai LI is currently an associate professor at College of Civil Engineering, Hunan University. He is a key member at Key Laboratory for Green & Advanced Civil Engineering Materials and Application Technology of Hunan Province, Green & Advanced Civil Engineering Materials International Science and Technology Innovation Cooperation Base of Hunan Province. His main research interests focus on computer simulation-based digital design of building materials and structures, preparation of high performance and intelligent cement-based materials, resource utilization of solid waste and carbon reduction. He has published more than 30 papers and has secured several funds from National Natural Science Foundation of China (General Program) and Natural Science Foundation of Hunan Province and Project Reach Youth, etc. He works as a youth editor in Journal of Hunan University (Natural Sciences), Youth Committee member of the Second Solid Waste and Eco-material Subcommittee of the Chinese Ceramic Society and reviewers of several international journals including Cement and Concrete Composites.

湖南省青年百人，绿色先进土木工程材料及应用技术湖南省重点实验室和湖南省绿色先进土木工程材料国际科技创新合作基地骨干成员。主要从事基于计算机模拟技术的建筑材料与结构数字化设计、高性能与智能型水泥基材料制备、固废资源化及减碳等方面的研究工作。已发表学术论文 30 余篇，主持国家自然科学基金面上项目 1 项、青年项目 1 项，湖南省自然科学基金 1 项，参编湖南省地方标准 2 项。担任中国硅酸盐学会固废与生态材料分会第二届理事会青年工作委员会委员、《湖南大学学报（自然科学版）》青年编委以及 Cement and Concrete Composites 等多个国际期刊审稿人。

C2 Jing YU (余 靖)



Dr. Jing YU, Fulbright Scholar and Fellow of Hong Kong Concrete Institute, is an Associate Professor of Civil Engineering at Sun Yat-Sen University (SYSU) in China. He holds his PhD degree from the Hong Kong University of Science and Technology (HKUST) and worked as a Research Assistant Professor at HKUST before joining SYSU. He has secured several research funds as the PI from various agencies (including 2 from the National Natural Science Foundation of China), and has published 60+ refereed journal/conference papers (including 20+ JCR-Q1 journal papers and 2 ESI highly cited papers). He has delivered 4 keynote/theme talks at international/national conferences and other 20+ technical presentations worldwide. He also serves as the editorial/advisory board member for 4 international journals. His research lies in Sustainable and Advanced Concrete. The mission of his team is to contribute to a sustainable and smart built environment through the development of innovative and multi-functional construction

products with high performance and low carbon.

中山大学土木工程学院“百人计划”副教授，浙江大学学士，香港科技大学博士，美国密歇根大学“富布莱特”学者（Fulbright Scholar），香港混凝土学会资深会员（Fellow），曾任香港科技大学助理教授（研究系列）。主要从事先进可持续混凝土研究，主持国家自然科学基金项目 2 项，主持/核心参与省部级项目 10 余项；近五年发表 SCI 期刊论文 30 余篇（中科院 1 区/2 区 Top 期刊 20 余篇），其中第一/通讯作者 SCI 论文 20 余篇（ESI 高被引论文 2 篇），SCI 引用 1200 余次（H 指数 22）；持有授权/公开中国发明专利 9 项；开展海外特邀讲学 1 次、国际/全国学术会议特邀报告/主题报告 4 次；兼任 *Frontiers in Materials* 等数种国际期刊的编委/客座主编、30 余种著名学术期刊的审稿人。

C3 Ao ZHOU (周傲)



Dr. Ao ZHOU is an associate professor in School of Civil and Environmental Engineering, Harbin Institute of Technology, Shenzhen. His main research interests focus on ultra-high performance concrete, fiber reinforced polymer and building reinforcement and durability. He has secured several research funds at national and provincial levels and has received supports from National Key R&D research project and Guangdong R&D plan projects in key areas, etc. Up until now, he has published more than 40 papers and

serves as an editorial board member of SCI journal (JCR Q1), reviewers in *ACS Applied Materials & Interfaces*, *Journal of Hazardous Materials*, *Composites Part B*, *Cement and Concrete Composites*, *Construction and Building Materials* and peer reviewer of National Natural Science Foundation of China and Guangdong.

哈尔滨工业大学（深圳）土木与环境工程学院副教授，博导。主要从事超高性能混凝土、纤维增强复材、建筑加固及耐久性等研究。主持国家自然科学基金青年项目、国家重点研发子课题、广东省自然科学基金面上项目、深圳市科技创新项目等 6 项，参与国家重点研发计划、广东省重点领域研发计划项目等多项研究项目。截至目前，已发表学术论文 40 余篇，担任 SCI (JCR 一区) 期刊编委，同时担任 *ACS Applied Materials & Interfaces*、*Journal of Hazardous Materials*、*Composites Part B*、*Cement and Concrete Composites*、*Construction and Building Materials* 等多个国际期刊审稿人，担任国家自然科学基金及广东省自然科学基金通讯评审。

C4 Bo QU (曲 波)



Dr. Qu, obtained PhD in Engineering of Structures, Foundations and Materials from the Technical University of Madrid (UPM) and Eduardo Torroja Institute for Construction Sciences (IETCC), Spain. He is currently a postdoctoral researcher in the Faculty of Engineering, China University of Geosciences, Wuhan. He works mainly in low carbon binders, and his expertise covers the hydration of cementitious materials, microstructure characterization, properties and durability of construction materials, use of industrial by-products and recycled materials in construction, geopolymers, chemical admixtures for cement and concrete.

于马德里技术大学 (UPM) 和西班牙爱德华多·托罗贾建筑科学研究所 (IETCC) 获得结构、基础和材料工程博士学位; 目前是武汉中国地质大学工程学院的博士后研究员。主要从事低碳胶凝材料的研究工作, 包括水泥材料的水化、微观结构表征、建筑材料的性能和耐久性、建筑中工业副产品和再生材料的使用、地质聚合物、水泥和混凝土的化学添加剂。

C5 Chuanlin HU (胡传林)



Prof. Chuanlin HU is a full professor at Wuhan University of Technology. He received his PhD degree from Hong Kong University of Science and Technology, and was a postdoctoral fellow at University of Toronto. He was selected into the Hubei High-level Talent Plan, and presided National Key R&D research project. His research focuses on the research of high-performance low-carbon cementitious materials.

现任武汉理工大学教授, 香港科技大学博士, 多伦多大学博士后, 入选湖北省高层次人才计划, 并参与主持国家重点研发项目。主要从事高效低碳胶凝材料的研究。

C6 Rui YU (余 睿)



Dr. Yu is a full professor of State Key Laboratory of Silicate Materials for Architectures, Wuhan University of Technology. He obtained his PhD degree from Eindhoven university of technology, the Netherlands. His main research interests focus on Ultra high performance concrete, functional concrete and sustainable construction materials. He has published more than 90 SCI articles, and was selected into the annual list of the world's top 2% scientists released by Stanford University for two consecutive years (2021 and 2022). In 2022, he was also selected into the Global Scholar Academic Impact Ranking.

现任武汉理工大学硅酸盐建筑材料国家重点实验室研究员，埃因霍温大学(荷兰)博士。主要从事超高性能混凝土，功能混凝土和可持续建筑材料的研究，已经发表超过 90 篇 SCI 论文，并连续两年（2021 年，2022 年）入选斯坦福大学全球最高引前 2%学者，并入选 2022 年全球学者学术影响力排名。

C7 Yuxuan CHEN (陈宇轩)



Dr. Yuxuan CHEN currently works as a Postdoctoral Research Fellow at School of Civil Engineering, Wuhan University. Prior to this, he gained his bachelor's degree and master's degree at School of Material Science and Engineering, Wuhan University of Technology. After that, he received his PhD degree at Eindhoven University of Technology, where his research focused on sustainable high-performance building materials. His research interests focus on plant fiber reinforced ultra-high strength concrete, aerogel-based super thermal insulation building material, nano reinforced ultra-High performance concrete and durability of concrete. He has published more than 10 papers in Cement and Concrete Composites, Composites Part: B Engineering, Journal of Cleaner Production and Construction and Building Materials (10 as first author and 1 as corresponding author). He serves as reviewers in many international authoritative journals. He is currently supported by National Natural Science Foundation of China and 71th China Postdoctoral Science Foundation (General Project) and Postdoctoral International Exchange Program.

现为武汉大学土木建筑工程学院海外引进博士后，工学博士。本科（2008-2012）及硕士（2012-2015）分别就读于武汉理工大学材料化学及材料学专业。2015 年 7 月于武汉理工大学材料科学与工程学院硅酸盐建筑材料国家重点实验室获得硕士学位。博士（2016-2021）就读于荷兰埃因霍温理工大学大学获得建筑材料专业博士学位，研究方向为可持续高性能建筑材料。主要研究领域：1、超强植物纤维混凝土；2、气凝胶超保温建材；3、纳米增强超高性能混凝土；4、混凝土耐久性。已在本领域权威期刊（Cement and Concrete Composites, Composites Part: B Engineering, Journal of Cleaner Production 与 Construction and Building Materials）发表有关植物纤维混凝土、超高性能混凝土、混凝土微结构发展、耐久性评估以及气凝胶保温隔热材料的学术论文 10 余篇，其中第一作者 10 篇，通讯作者 1 篇，并担任多个国际权威 SCI 期刊审稿人。现主持国家自然科学基金青年项目 1 项，博士后国际交流计划引进项目 1 项，第 71 批中国博士后科学基金面上项目 1 项。

C8 Weibai LI (李伟柏)



Weibai LI is a postdoctoral research fellow at the Swinburne University of Technology, Melbourne, Australia. He received his master's degree from Tongji University, China in 2016, and he was awarded the degree of Doctor of Philosophy from the Swinburne University of Technology in 2022. His research mainly focused on multidisciplinary topology optimization, including the design of continuum structures, fiber-reinforced composites, phononic crystals and acoustic metamaterials.

澳大利亚墨尔本斯威本科技大学博士后研究员，于 2016 年获中国同济大学硕士学位，2022 年获斯威本科技大学哲学博士学位。其主要研究方向是多学科拓扑优化，包括连续体结构设计，纤维增强复合材料，声子晶体和声学超材料。

C9 Shi XU (许实)



Dr. Xu received his PhD from the School of Civil Engineering and Geological Sciences at Delft University of Technology in the Netherlands in 2020. Since March 2021, he worked as a lecture at School of Civil Engineering and Architecture, Wuhan University of Technology, mainly engaged in research on functional sustainable pavement materials and reuse of solid waste in civil engineering field. He has hosted or participated in 8 scientific research projects of the National Natural Science Foundation of China, the China Scholarship Council, and the Netherlands Water and Transportation Administration. He is currently an active RILEM member in the committees of the Asphalt Pavement Crack Healing Sub-Committee (278-CHA) and Polymer Modified Asphalt Sub-Committee (PPB). He is also a member of the International Association of Chinese Infrastructure Experts (IACIP) and the China Highway Society. He is the guest editor of the international SCI Journal Processes, and the reviewer of more than a dozen internationally renowned journals such as Journal of Cleaner Production and Construction and Building Materials. He has published more than 10 SCI indexed papers as the first or corresponding author.

2020 年于荷兰代尔夫特理工大学土木工程与地质科学学院获得博士学位。2021 年 3 月至今在武汉理工大学土木工程与建筑学院任教，主要从事功能型可持续路面材料、固体废弃物在土木工程领域再利用等方面的研究。主持或骨干参与国家自然科学基金委、国家留学基金委、荷兰水利交通管理局等科研项目 8 项；出版英文专著一部，现任国际材料与结构研究实验联合会（RILEM）沥青路面裂纹愈合分委会（278-CHA）与聚合物改性沥青分委会（PPB）委员，也是国际华人基础设施专家协会（IACIP）会员、中国公路学会会员。担任国际 SCI 期刊 Processes 特邀编辑，也是 Journal of Cleaner Production, Construction and Building Materials 等十余个国际著名期刊的审稿人。以第一或通讯作者发表 SCI 检索论文十余篇。

C10 Xiong XU (徐 雄)



Dr. Xiong XU is currently a research fellow at Wuhan Institute of Technology. He received his Ph.D degree from Wuhan University of Technology in 2018 and conducted postdoctoral research at The Hong Kong Polytechnic University during 2018 to 2020. His research interests mainly include the recycling technology of polymeric wastes in asphalt materials, clean recycling technologies for reclaimed asphalt pavement materials, as well as sustainable durable pavement materials and technologies. He has published more than 30 SCI papers and is serving as reviewers in various peer-reviewed journals including *Engineering*, *Journal of Cleaner Production*, and *Construction and Building Materials*.

现工作于武汉工程大学，于2018年获得武汉理工大学博士学位，并于2018年至2020年期间在香港理工大学进行博士后研究。其主要研究方向包括沥青材料中聚合物废弃物的再生技术、再生沥青路面材料的清洁再生技术以及可持续耐久路面材料和技术。截至目前其已发表30多篇SCI论文，并在包括 *Engineering*, *Journal of Cleaner Production* 和 *Construction and Building Materials* 等多个同行评审的期刊上担任评论员。

05. Conference Notice

International Forum on Low-carbon and Green Urbanization 2022

The forum LCGU-22 aims to discuss sustainable and smart development of urban area with increasing resource shortage and pollution, giving special attention to water pollution control, energy resource assessment, green building construction, and innovative functional building materials under background of carbon emission reduction. There is a growing demand for the intelligent management and recovery of resource. With these advanced processes, models and materials, traditional technologies may be improved for livable environment and green city in the future.

Forum Theme:

Advanced technologies and materials for water environment protection, energy assessment and building carbon neutralization in the process of urban sustainable development, including the following three sessions:

Session A: Water pollution remediation and energy resources management

Session B: Eco-city and green building

Session C: Sustainable and functional building materials

Organizers:

Wuhan University of Technology

Hubei Key Laboratory of Roadway Bridge and Structure Engineering

Hubei Green and Intelligent Building Engineering Technology Research Center

Co-organizers:

State Key Laboratory of Silicate Materials for Architectures

Journal of Wuhan University of Technology

Wuhan University

Huazhong University of Science and Technology

Lanzhou University of Technology

Time and Venue:

Date: December 03-04, 2022

Online Conference: Tencent Meeting ID: 381-207-036 Passcode: 367123
(Opening ceremony, Session A); Tencent Meeting ID: 491-539-914 Passcode: 221248
(Session B and C);

Contact Information:

Ling PAN Tel: 027- 87165783 Email: panling@whut.edu.cn

Address:

School of Civil Engineering and Architecture, Wuhan University of Technology,
No. 122 Luoshi Road, Wuhan, Hubei, China, Post code: 430000

Programme Committee of LCGU-22

November 11th, 2022

五、会议通知

2022 年绿色低碳城市化国际论坛

2022 年绿色低碳城市化国际论坛（LCGU-22）旨在讨论资源短缺和污染日益严重情况下城市可持续智能发展，重点关注双碳目标下水污染控制、生态城市规划、绿色建筑设计、新型功能建筑材料等领域。随着资源优化管理及再生需求日益增大，通过工艺、模型和材料创新，进一步改进传统技术，推动未来宜居环境和绿色城市建设。

论坛主题：

城市可持续发展过程中水环境保护、能源评估及建筑碳中和先进技术和材料，包括以下三个环节：

会议 A：水污染治理与能源评估

会议 B：生态城市与绿色建筑

会议 C：可持续功能性建筑材料

主办方：

武汉理工大学

道路桥梁与结构工程湖北省重点实验室

湖北省绿色智能建筑工程技术研究中心

协办单位：

硅酸盐建筑材料国家重点实验室

武汉理工大学学报

武汉大学

华中科技大学

兰州理工大学

时间和地点：

日期：2022 年 12 月 03-04 日

线上会议：Tencent Meeting ID: 381-207-036 Passcode: 367123（开幕式、分论坛一）

Tencent Meeting ID: 491-539-914 Passcode: 221248（分论坛二、三）

联系方式：

潘玲 电话：027- 87165783 邮箱：panling@whut.edu.cn

地址：

中国湖北省武汉市珞狮路 122 号，武汉理工大学土木工程与建筑学院，邮编：430000

LCGU-22 委员会

2022 年 11 月 11 日

改进传统技术，推动未来
宜居环境和绿色城市建设。

LCGU-22组委会

地址：中国湖北省武汉市珞狮路122号

武汉理工大学土木工程与建筑学院

邮编：430070