

The page features several decorative elements: a large blue circle with a white ring and a smaller blue circle in the top right; a smaller blue circle with a white ring in the middle; and a large blue circle with a white ring in the bottom right. Two thin blue lines cross the page diagonally, one from the top left to the middle right, and another from the top right to the bottom right.

**MSEE2025**

**PROGRAM BOOK**

**July 25th-27th, 2025**

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# **13th Annual International Conference on Material Science and Environmental Engineering [MSEE2025]**

July 25th -27th, 2025  
www.MSEE2025.com

The 13th Annual International Conference on Material Science and Environmental Engineering [MSEE2025] will be held on July 25th -27th, 2025 in Wuhan, Hubei, China. MSEE2025 will provide an excellent international Academic forum for sharing knowledge and results in theory, methodology and applications of Material Science and Environmental Engineering. The conference looks for significant contributions to all major fields of Material Science and Environmental Engineering in theoretical and Application aspects. The aim of the conference is to provide a platform to the global researchers and practitioners from both academia as well as industry to meet and share cutting-edge development in the field.

In the past five years, MSEE2018, 2019, 2020, 2021, 2022, 2023 and 2024 have been published by IOP Conference Series: Journal of Physics: Conference Series (JPCS) indexed by EI successfully.

All accepted paper will be published by Proceedings of SPIE-The International Society for Optical Engineering (ISSN: 0277786X) as conference proceeding MSEE2025 after peer-reviewed.

The conference Username and Password have been sent by email.  
We look forward to welcome you in MSEE2025 and wish you a fruitful and enjoyable stay in.

Contact:  
Email: [icmsee@vip.163.com](mailto:icmsee@vip.163.com)  
Phone: (+86)13098883204

# SCHEDULE OF THE CONFERENCE

The Conference Schedule: Chinese Time Zone (GMT+8, Beijing Time)

The time: <https://time.is/Beijing>

**Time Zone Converter:** <https://www.timeanddate.com/worldclock/converter.html>

July 25th 2025, 09:00-18:00: Check in/Test the Meeting App

July 26th, 2025, 09:00-09:10: Opening Ceremony

July 26th, 2025, 09:10-12:30: Keynote Speech

July 26th, 2025, 14:00-19:00: Oral Presentation & Poster Presentation

The conference will be held in a **hybrid format**

**In-Person:** All presentations and activities will be held at JUNYI Dynasty Hotel, 87 Luoyu Road, Hongshan District, Wuhan, China

Keynote Speech: 09:00-12:30, Green Island Hall on the 6F

Oral Presentation Discussion 1: 14:00-20:00, Green Island Hall on the 6F

Oral Presentation Discussion 2: 14:00-20:00, Sun Moon Lake Hall on the 6F

Poster Presentation: 14:00-20:00, Moon Lake Hall on the 6F

**Online:** The conference will be hosted on the Tencent Meeting platform

Keynote Speech and Oral Presentation: 09:00-20:00

**Tencent Meeting ID:** 310-217-404

**Password:** 0726

Poster Presentation: 14:00-20:00

**Tencent Meeting ID:** 883-766-756

**Password:** 0726

**Tencent Meeting App Download Link** (Mainland China Participants):

<https://meeting.tencent.com/download/index.html>

**VooV Meeting App Download Link** (Participants from outside Mainland China):

<https://voovmeeting.com/download-center.html>

# July 26th, 2025 Conference Schedule

09:00-09:10	Open Ceremony
09:10-10:00	Keynote Speech I: Prof. Jialei Liu
10:00-10:50	Keynote Speech II: Prof. Ankush Ghosh
10:50-11:40	Keynote Speech III: Prof. Jiangfeng Dong
11:40-12:30	Keynote Speech IV: Prof. Osman Adiguzel
12:30-14:00	Lunch Time, 5F
14:00-19:00	Oral Presentation & Poster Presentation
19:00-20:00	Dinner Time, 5F

## **Session #1 Keynote Speech**

**09:10-12:30, July 26th, 2025**

**(50 Mins for Keynote Speech, Including 5-10 Mins for Answers)**

<b>Session #1</b>	<b>Time</b>	<b>Keynote Speaker</b>
Keynote Speech I	09:10-10:00	Prof. Jialei Liu
Keynote Speech II	10:00-10:50	Prof. Ankush Ghosh
Keynote Speech III	10:50-11:40	Prof. Jiangfeng Dong
Keynote Speech IV	11:40-12:30	Prof. Osman Adiguzel

## KEYNOTE SPEAKER I

**Prof. Jialei Liu, Chinese Academy of Agricultural Sciences, China**



**Biography:** Ph D. Jialei Liu obtained his Ph.D. degree in 2010 in the department of organic chemistry from the University of Chinese Academy of Sciences, Beijing, China. He had worked at technical institute of physics and chemistry, Chinese Academy of Sciences from 2010 to 2019. And now he is working as a professor at institute of agricultural environment and sustainable development, Chinese Academy of Agricultural Sciences. His research area involves synthesis of organic functional materials and their application in agriculture, comprehensive utilization of agricultural waste. So far, he has published more than 120 SCI academic peer-reviewed papers and achieved more than 30 patents as co-inventor. Some achievements in the fields of degradable mulch films and functional greenhouse films have been applied in agricultural production. He is also the youth council member of Chinese Society for Imaging Science and Technology; Expert committee member for Agricultural and Medical Professional Committee of the Chinese Society of Rare Earths; Expert committee member for the Polymer Materials Standards Committee of CSTM; Fellowship of International Association of Advanced Materials; Section editor of “Mini-review in organic chemistry”; Associate editor of “Current Chinese Chemistry”; Guest editor of “Molecules” and “Polymers”.

## KEYNOTE SPEAKER II



**Prof. Ankush Ghosh, Chandigarh University, India**

**Biography:** Prof. Ankush Ghosh is Senior member of IEEE, Fellow of IETE working as Vice-President at ADSRS Education and Research Foundation, India. He has received his Ph.D. (Engg.) degree from Jadavpur University, India in 2010. He was a research fellow of the Advanced Technology Cell- DRDO, Govt. of India. He was awarded National Scholarship by HRD, Govt. of India. He has outstanding research experiences and published more than 10 edited books from Springer & Elsevier; 3 National & 8 International patents and more than 100 research papers indexed in Scopus/Web of Science. He is serving as an editorial board member of several international journals including Chief Editor. He has more than 15 years of experience in teaching, research as well as industry. His UG and PG teaching assignments include Microprocessor and microcontroller, AI, IOT, Embedded and real time systems etc. He has delivered Keynote/Invited lecture in a number of international seminar/conferences, refreshers courses, and FDPs. He has guided a large number of M.Tech and Ph.D. students. Dr. Ghosh is an active member of IEEE and organized a number Seminars and workshops in association with IEEE. He is an editor & organizing committee member of the Conference series GUCON, ICCCA, ICEEE, ICACIT. He is a Global Jury member of National Entrepreneurship Network- Mentor Group. He has received award for contributing in Innovate India programme from AICTE- DST, Govt. of India in 2019 and 2020.

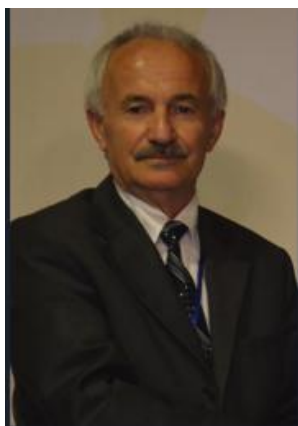
## KEYNOTE SPEAKER III

### **Prof. Jiangfeng Dong, Sichuan University, China**



**Biography:** Prof. Dr. Jiangfeng Dong, received his Ph.D in Civil Engineering from the Sichuan University in 2012. He is also a joint Ph.D of Sichuan University and University of Liverpool (UK). He has amazed good experience in research and application in the field of structures and materials, with specialization in structural repair and retrofitting, cementations materials development, fiber-reinforced concrete with recycled aggregates, fiber-reinforced concrete with waste mineral admixtures of fly ash, silica fume, slag, etc. He has published 80 journal papers and 30 conference proceeding.

## KEYNOTE SPEAKER IV



**Prof. Osman Adiguzel, Firat University, Elazig, Turkey**

**Biography:** Dr. Osman Adiguzel graduated from Department of Physics, Ankara University, Turkey in 1974 and received PhD- degree from Dicle University, Diyarbakir-Turkey. He studied at Surrey University, Guildford, UK, as a post-doctoral research scientist in 1986-1987, and his studies focused on shape memory alloys. He worked as research assistant, 1975-80, at Dicle University and shifted to Firat University in 1980. He became professor in 1996, and he has been retired due to the age limit of 67, following academic life of 45 years.

He published over 80 papers in international and national journals; He joined over 120 conferences and symposia in international and national level as Plenary Speaker, Keynote Speaker, Invited speaker, speaker, or Poster presenter. He served the program chair or conference chair/co-chair in some of these activities. In particular, he joined in last six years (2014 - 2019) over 60 conferences as Speaker, Keynote Speaker and Conference Co-Chair organized by different companies in different countries. Additionally, he retired at the end of November 2019, and contributed with Keynote/Plenary Speeches over 180 Virtual/Webinar Conferences, in the coronavirus outbreak in four year of his retirement, 2020 and 2023. Dr. Adiguzel served his directorate of Graduate School of Natural and Applied Sciences, Firat University in 1999-2004. He supervised 5 PhD- theses and 3 M. Sc theses. He is also technical committee member of many conferences. He received a certificate which is being awarded to him and his experimental group in recognition of significant contribution of 2 patterns to the Powder Diffraction File – Release 2000. The ICDD (International Centre for Diffraction Data) also appreciates cooperation of his group and interest in Powder Diffraction File. Scientific fields of Dr. Adiguzel: Shape memory effect and displacive phase transformations in shape memory alloys and other alloys, molecular dynamics simulations, alloy modeling, electron microscopy, electron diffraction, x-ray diffraction and crystallography.

## Session #2 List of Oral Presentation Discussion 1:

14:00-19:00, July 26th, 2025

(10 min presentation and 5 min question time)

Session #2	Time	Paper Title	Author
S762	14:00-14:15	Optimized thermoelectric performance via Li doping to regulate electrical transport in rock-salt-structured high-entropy (MgCoNiCuZn)O ceramics	Rui Man, Dan Yu, Jiyuan Fan, Xinli Lu, Cao Wang, Zhao Li and Tong Zhou
S1152	14:15-14:30	Establishment and Research of Epoxy Resin Molecular Models with Different Curing Agents Based on Perl Cross-linking Script	Yimeng Duan, Hao Yang, Sirui Zhao, Jun Huang and Boxi Yu
S740	14:30-14:45	The Impact of Winter Clean Heating Policies on Air Quality: A Combined Approach of Machine Learning and Causal Inference	Yujuan Chai, Pingping Li, Tingxuan Fan and Longfeng Wang
S1100	14:45-15:00	Research on Intelligent Assessment Method for Low-code Data Visualization Skills	Zhengting Shi, Weihua Zhang, Junying Jin, Wei Zhang and Yifan Zhao
A440	15:00-15:15	Multi-scale Coupling Analysis of Three-dimensional Tubular Woven Composite Materials	Feng Qu, Chunlian Liu, Hongtu Shi, Dong Wang, Xiangqian Guo
A441	15:15-15:30	The Three-dimensional Braided Composites Geometry Modeling and the Effective Elastic Modulus Prediction	Chunlian Liu, Dongpo Qu, Xiangqian Guo
B252	15:30-15:45	Data Analysis and Forecasting of Air Quality Problem in Leshan	Xuejun Huang

B259	15:45-16:00	Study on NO <sub>x</sub> Emission Characteristics of Heavy-Duty Vehicles Based on Remote Monitoring	Zhenkai Xie, Yong Liu
B350	16:00-16:15	Research on Rainfall and Temperature Forecasting and Correction Technology in Mountainous Micro-Terrain	Lingrong Pang, Qiang Fan, Hourong Zhang, Bo Gong, Huayang Ye, Jinqiang He, Jianrong Wu, Hao Li, Qili Zhang, Haipeng Zhang
C191	16:15-16:30	Trustworthy Energy Consumption Data Analysis and Carbon Emission Control Strategies for Industrial Parks	Qingyuan Zhao, Hongxing Han, Jiabin Li
C203	16:30-16:45	Analysis of Energy Consumption and Carbon Emissions of Family Vehicles Based on Real Drive conditions	Zhenkai Xie, Ning Yang, Hongjun Mao
C526	16:45-17:00	Numerical Simulation of Improving Diesel Engine Emission Pollutants through Fuel Injection Strategy	Jing Hao, Kai Yang, Haiyang Ma
S801	17:00-17:15	The Development and Application Prospect of Activated Sludge Mathematical Model	Xiaolin Li, Qiujiu Ru, Yifan Wang
S802	17:15-17:30	The Research Progress on the Mechanism of Action and Distribution Migration of Perfluorinated Compounds in Different Environmental Systems	Xiaolin Li, Qiujiu Ru, Yifan Wang
S803	17:30-17:45	Study on Comprehensive Environmental Impact of New Dust Removal Technology	Haiyan Fan, Aihong Zhang, Jian Ma
S804	17:45-18:00	Design and Optimization of Methanol Reforming Hydrogen Production Systems	Limei Sun, Yang Liu, Bin Yu, Xiujian Zhu, Limei Gu, Zhiyong Luan, Hongyang Wang, Jialei Liu

T250	18:00-18:15	Environmental Impact Assessment of E-Waste Recycling in Developing Countries: Challenges and Sustainable Practices	Hlaing Htake Khaung Tin, Sithu, KoKo Maung
T251	18:15-18:30	Influence of Magnesium Incorporation on the Structural, Optical, and Electronic Properties of Chemically Synthesized ZnO Thin Films: Experimental Observations and Ab Initio Analysis	Salah OUDJERTLI, Abdelkader MOHAMMEDI, Miloud IBRIR
T252	18:30-18:45	Raman Spectroscopic Signatures of Er <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> Pyrochlore and ErPO <sub>4</sub> Xenotime: Structural Mode Assignments and Comparative Analysis	H. Cristina Vasconcelos, Maria Meirelles
T253	18:45-19:00	Surface Stabilization, Functionalization, and Environmental Applications of Magnetic Nanoparticles	A. Demir Korkmaz

## Session #2 List of Oral Presentation Discussion 1:

14:00-19:00, July 26th, 2025

(10 min presentation and 5 min question time)

T254	14:00-14:15	Structural, electronic, elastic and optical properties of predicted ternary chalcogenides LiNaQ for optoelectronics and storage devices applications: DFT study	A.Khelefhom, Ly. Benbahouche, and Said Boucetta
S1171	14:15-14:30	Investigation on Simple Atmospheric Pressure Plasma Jet and Its Degradation of Methylene Blue Solution	Xiaoliang Tang, Xingwang Chen, Yijing Liu, Hakim Ssekasamba, Kaiwen Ren, Gao Qiu
S811	14:30-14:45	Preparation of Ag <sub>3</sub> PO <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> Composite Nanomaterial for Photocatalysis	Jiani Yang, Chunyan Su, Linfeng Wang and Min Li
S812	14:45-15:00	Novel Molten Salt Method for Synthesizing High-Quality La <sub>3</sub> Ni <sub>2</sub> O <sub>7</sub> with Enhanced Crystallinity and Layered Structures	Yifan Lai, Jiang Zhang
M107	15:00-15:15	Angular Dependence of Magnetoresistance in Polycrystalline Graphite	Wen Long, Jiang Zhang
M104	15:15-15:30	Digital Design of Laying Process for Composite Prefabricated Parts Based on Volume Filling	Jianfen Guo, Shuhu Li, Yan Liu, Kuiyuan Sun and Guowei Liang
M1089	15:30-15:45	Growth and Structural Characteristics of Zn <sub>2</sub> TiO <sub>4</sub> Epitaxial Films on MgAl <sub>2</sub> O <sub>4</sub> Substrates	Biao Zhang, Hongyan Zhu, Caina Luan, Jin Ma and Hongdi Xiao

M11090	15:45-16:00	Analysis of Welding Residual Stresses in Thick Plate Butt Joints at Low Temperatures	Xiuxing Sang, Yang Liu, Jiaqian Wang, Gong Wang, Zhen Song and Ming Zhang
M126	16:00-16:15	Research on the Application of Environmentally Friendly Printing and Dyeing for the Preparation of Structural Color Patterns by Screen Printing	Haiyan Xu, Jinyun Liu, Suxin Wang, Jie Hong and Zhijie Zhu
M129	16:15-16:30	Effect of Morphology on Electromagnetic Properties and Microwave Absorption Properties of Carbonyl Iron Powder	Chao Meng, Shoujing Yue, Lichun Chen, Jigang Wang and Yingying Ding
M1112	16:30-16:45	Experimental Study and Prediction of Lateral Pressure on Formwork by Self-Compacting Concrete	Xinqiang Yang, Jinhe Bai, Tuo Liu and Delin Xu
S764	16:45-17:00	Science mapping analysis of heavy metal and wastewater irrigation from 1978 to 2022	Huanhuan Rao and Shaofei Jin
S765	17:00-17:15	Changes of Day-Night Composite High-Temperature Events in Minhou County over the Past 60 Years	Shaofei Jin and Huanhuan Rao
S805	17:15-17:30	Research on Key Issues in Typical Practice of Virtual Power Plants	Qingkun Tan, Jinhui Duan, Yu Zhang, Wei Tang, Peng Wu, Tong Xing
S808	17:30-17:45	Plastic Performance of Recycled Concrete based on ABAQUS	Zeliang Yao, Jialin Zhou, Xiaojia Chang, Tingting Cui

M1113	17:45-18:00	Influence of Ag addition on T-phase stability in crossover alloys: A first-principles approach	Boyu Xue, Wei Xiao, Xiwu Li, Mingyang Yu, Xiaowu Li, Hongwei Yan, Ying Li, Yongan Zhang and Baiqing Xiong
S720	18:00-18:15	Study of Ultimate Bearing Capacity of Eccentrically Loaded L-shaped Composite Steel Columns	Tongtong Li, Huake Wang and Xintang Wang
S731	18:15-18:30	Cable Core Temperature Prediction Method Based on CNN	Lei Wang, Lin Niu, Xingwang He, Yanjie Zhang, Zhenhai Zhang, Bingqian Zhang and Lina Chen
S743	18:30-18:45	Structural Design and Manufacture of a Composite Material Antenna Skeleton	Kexuan Li
S761	18:45-19:00	Polyfunctional boehmite/expanded graphite composites for fluoride adsorption properties and mechanism	Hang Sun, Xianchao Wang, Jinling Yin, Jing Zhao, Guiling Wang, Qing Wen, Xuan Zhang

## Session #3 List of Poster Presentation:

14:00-19:00, July 26th, 2025

Session#3	Paper Title	Author
M130	Preparation and Properties of 8 ~ 18GHz Wideband Radar Absorbing Materials	Chao Meng, Lichun Chen, Jigang Wang and Yingying Ding
S721	Research Progress on Production and Extraction of Xanthophyll from Microalgae	Benshu Chen and Wei Li
S735	Study on Separation and Analysis Technology of Polysaccharide from Ganoderma lucidum Spore Powder	Wenwei Li, Aiqin Luo, Yao Xie and Axin Liang
S746	Simulation Study on the Influence of Sintered Ore Diameter on Vertical Cooling Process	Haifeng Wang and Jian Qius
S809	Study on Mesoscopic Performances of Recycled Concrete	Zeliang Yao, Xiaojia Chang, Jialin Zhou, Tingting Cui
S810	Quantitative Assessment of Cadmium Input-Output Fluxes in Selenium-Enriched Paddy Soils of Chengmai Country, Hainan Island	Nanying Qiu, Na Zhang, Li Liu
S813	Hydrogeological Characteristics and Lithofacies Paleogeography of the Northwestern Subei Faulted Basin, China	Kejing Meng, Jia Lu, Jianguo Zhang, Lei Hu, Yanzhen Chen
S815	Geological model and prospecting significance of Jawurah deposit in Inner Mongolia	Guiyuan Sun, Lei Wang, Zhiping Li, Yanle Xia
S816	Alteration Mineral Mapping and Mineral Exploration Prediction at the Jawurah Lead-Zinc Mine in Inner Mongolia	Jia Lu, Lei Wang, Guiyuan Sun, Zhiping Li, Yanle Xia
S837	Geochronological Characteristics and Tectonic Significance of Granite Plutons in Shenggeshungun Area, Ejina Banner, Inner Mongolia	Huan Wang, Shulai Wang, Xinyu Yang, Yipeng Feng

S838	Tailoring Microstructure and Optical Properties of ZnO Film on Flexible Substrates via Homo-buffer Layer Engineering	Dawei Cui, Ping Guo
S839	Characteristics of Fungal Community Structure in Rhizosphere Soil of Mulberry Trees in Riparian Buffer Zone Wetlands Under Cadmium Contamination	Haisheng Chen, Ning Sun, Minrong Zhang, Taolue Chen, Linsheng Cai, Linjiang Jiang, Chunmei Hou
S840	Research on the Selection of Normal Storage Level for Typical Pumped Storage Power Station Reservoirs with Comprehensive Utilization Tasks on Sandy Rivers	Haijing Zhao, Tingting Wang, Yan Zhang, Li Dai, Ke Gu, Xueqin Zheng, Yu Wang, Wei Qiu, Ziwei Zhong
S846	Numerical Simulation Study on VARTM Processing of Large-tow Carbon Fiber Reinforced Composite Automotive Floor Panel	Tengfei Chen, Tingjun Wang, Yu Liu, Maolin Guo, Jiacheng Zhou, Zhongshuai Zhao, Baoshan Yan, Penghui Yang, Ziyang Chen
S847	Study on Optimal Scheduling Model of Virtual Power Plant with Low Carbon and Economic Benefits	Huidan Zhuo, Yanling Sun, Hongwei Ma, Yingya Wang, Xiaodan Lou
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S760	Regulation of the Electrical Properties of ZnO Varistors by Co <sub>2</sub> O <sub>3</sub> Doping	Zhipeng Ge, Chong Lu, Yu Xiang, Jinxia Xu, Lingyun Liu
S767	Study on the Influence of Rotary Wheel Feed Rate on the Residual Stress of GH4169 Superalloy	Kai Huang, Bo Lan, Shuang Fang, Qi Dong
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A209	High Temperature Performance Test and Combustion Threshold Study of Vehicle Tires	Xinliang Fu, Yifei Cheng, Zixuan Lan, Xiaohui Xie, Peng Yang, Zhongqian Ling
A211	Natural Environmental Impacts and Monitoring of the Tangible Cultural Heritage of the Jingdezhen Porcelain Industry	Zefang Li, Shuqiang Zhao, Pulin Cao, Guangyu Wu, Wanjia Li

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M1099	Overview of Hydrogen Storage Equipment and Its Inspection and Detection Technology in Hydrogen Fuelling Stations in China	Zhixiang Duan, Gang Hao, Hangjian Hu, Huiyong Duan
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