第二届
材料科学与器件工程国际会议

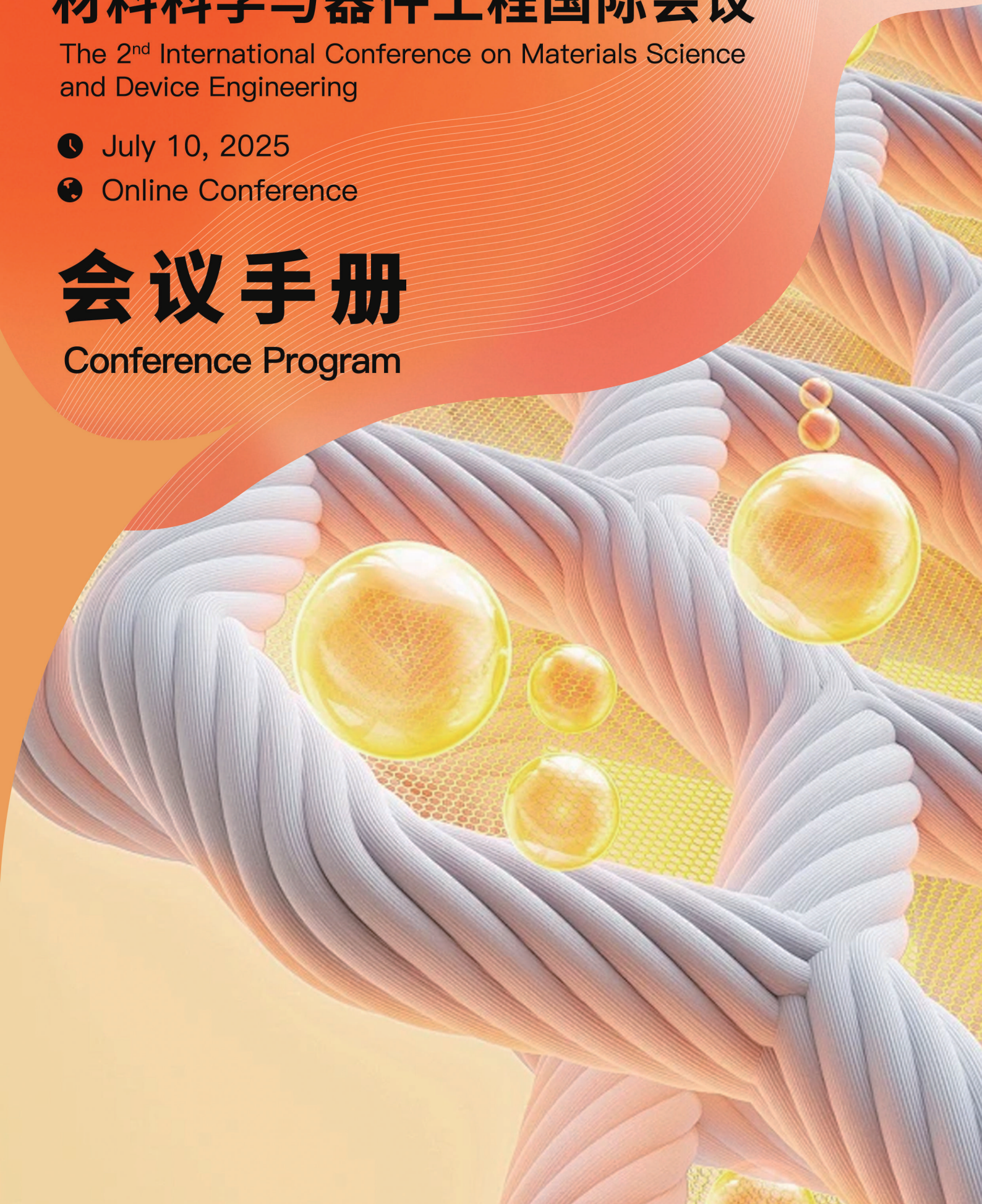
The 2nd International Conference on Materials Science and Device Engineering

July 10, 2025

Online Conference

会议手册

Conference Program



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I. 会议介绍

Conference Introduction

会议背景

Conference Background

随着世界各国对科技创新的不断追求，材料科学作为多学科交叉融合的关键领域，正经历着飞速发展。一方面，基础研究不断取得突破，为材料的性能优化与创新应用提供理论支撑；另一方面，各行业对高性能、多功能材料及先进器件的需求呈爆发式增长，如电子领域对高集成度、低功耗芯片材料的迫切需要，能源行业对高效储能、转换材料的探索等。

在此背景下，ICMSDE-2025 会议旨在为全球材料科学与器件工程领域的专家、学者提供一个平台，通过分享最新研究成果与实践经验，以共同攻克材料科学与器件工程领域的难题，加速科研成果转化，助力产业升级。

With the continuous pursuit of scientific and technological innovation by countries around the world, materials science, as a key field of interdisciplinary integration, is experiencing rapid development. On the one hand, continuous breakthroughs have been made in basic research, providing theoretical support for the performance optimization and innovative application of materials. On the other hand, the demand for high-performance, multi-functional materials and advanced devices in various industries has seen explosive growth. For instance, in the electronics sector, there is an urgent need for high-integration and low-power chip materials, and in the energy industry, there is an exploration of efficient energy storage and conversion materials.

Against this background, the ICMSDE-2025 aims to provide a platform for experts and scholars in the field of materials science and device engineering worldwide to share the latest research results and practical experience, so as to jointly solve the problems in the related fields and accelerate the transformation of scientific research achievements, and facilitate industrial upgrading.

会议主题

Conference Topics

会议主题 Conference Topics	
主题一/Topic 1：	Composite Material
主题二/Topic 2：	Nanomaterials and Nanotechnology
主题三/Topic 3：	New Energy Materials and Environment
主题四/Topic 4：	Optoelectronic Materials and Devices
主题五/Topic 5：	Electronics, Circuits and Systems

II. 参会信息

How to Attend

会议时间和方式

Time and Way

- 北京时间 2025 年 7 月 9 日 9:30-18:00 会议测试

July 9, 2025 9:30-18:00 (Beijing Time) Conference Rehearsal

- 北京时间 2025 年 7 月 10 日 9:30-18:00 线上会议

July 10, 2025 9:30-18:00 (Beijing Time) Online Conference

会议入口

Conference Entrance

Way 1: VOOV Meeting

- **会议测试入口 Conference Rehearsal Entrance (July 9, 2025, Beijing Time)**

链接：https://meeting.tencent.com/dm/qOJoyY3X35Nm
腾讯会议：761-805-311
密码：2025

Rehearsal Link: https://meeting.tencent.com/dm/qOJoyY3X35Nm
Rehearsal ID: 761-805-311
Password: 2025

- **正式会议入口 Online Conference Entrance (July 10, 2025, Beijing Time)**

链接：https://meeting.tencent.com/dm/AQV40EiZCMn1
腾讯会议：418-911-404
密码：2025

Conference Link: https://meeting.tencent.com/dm/AQV40EiZCMn1
Conference ID: 418-911-404
Password: 2025

Way 2: ZOOM

- **会议测试入口/Conference Rehearsal Entrance (July 9, 2025, Beijing Time)**

链接：https://us06web.zoom.us/j/89968229690?pwd=NGqvg9b6ymsyRhjB7BhKYgsKhayUjX.1
ZOOM 测试 ID：899 6822 9690
密码：2025

Link: https://us06web.zoom.us/j/89968229690?pwd=NGqvg9b6ymsyRhjB7BhKYgsKhayUjX.1
ZOOM Rehearsal ID: 899 6822 9690
Password: 2025

- **正式会议入口/Online Conference Entrance (July 10, 2025, Beijing Time)**

链接：https://us06web.zoom.us/j/86341125576?pwd=lvDvNy9nqKVXlfTR7bq2KbGiDybQhs.1
ZOOM 会议 ID：863 4112 5576
密码：2025

Link: https://us06web.zoom.us/j/86341125576?pwd=lvDvNy9nqKVXlfTR7bq2KbGiDybQhs.1
Conference ID: 863 4112 5576
Password: 2025

Way 3: Other Participation Entrance

- 微信视频号直播—WeChat Channels Live

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Notes

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Please install VooV Meeting or ZOOM on your PC and create an account in advance.

请各位嘉宾于会议当天提前进入会议室，谢谢！
Please speakers join the VooV Meeting or ZOOM 10 minutes before the scheduled time on the conference day. Thanks.

会议精彩视频将于会后上传至 TikTok，视频号，Twitter，YouTube 进行推广宣传！
We will upload the conference record to TikTok, WeChat Channel, Twitter, YouTube to promote the conference and your article after the conference.

III. 会议议程

Conference Schedule

July 9 9:30-18:00	会议测试 Conference Rehearsal（9:30-18:00）		
July 10 9:30-18:20	开幕式 Opening Ceremony（9:30-9:35）		
	嘉宾演讲 Keynote Speech（9:35-12:10）		
	时间 Time	报告题目 Title	报告人 Speaker
	9:35-10:00	Phase Transformation of TiAl6V4 after Heat Treatment	Prof. Nguyen Duong Nam
	10:00-10:20	Producing Commercial Lignocellulose-Derived Carbonaceous Material by Superheated Physical Activation as a Promising Supercapacitor Electrode	Dr. Nur Adi Saputra
	10:20-10:40	Sodium Ion Batteries: A Study on the Research Progress and Policy Pathways for Sustainable Energy Solutions	Dr. Peeyush Phogat
	10:40-11:00		Dr. Aman kumar
	11:00-11:20		Prof. Muhammad Mudassar
	11:20-11:40		Mr. Mudassir Ishfaq
	11:40-12:10	Additive Manufacturing of Functionally Graded Composite Materials	Prof. Reza Shoja Razavi
	午餐时间 Lunch Break（12:10-14:20）		
	嘉宾演讲 Keynote Speech（14:20-18:05）		
	时间 Time	报告题目 Title	报告人 Speaker
	14:20-14:40	Application of Shape Memory Alloys in Seismic Retrofitting of Structural Systems	Dr. Abbasali Sadeghi
	14:40-15:00	Flexible Porous Carbon Adsorbents for Post and Pre-Combustion of CO2 Capture	Prof. Nour Fathi Shehata Attia
	15:00-15:20	Magnesium Based Composites Fabricated by Severe Plastic Deformation	Dr. Mahdi Sabbaghian
	15:20-15:45	Sustainable Biochar from Agricultural Residues: Environmental Benefits and Applications	Prof. V. Arumugaprabu
	15:45-16:10	Multiwalled Carbon Nanotubes as Hole Collectors in Inverted Perovskite Solar Cellsoxygens	Prof. Ahmed Mourtada Elseman
	16:10-16:30	Agro-waste for Sustainable Engineering applications	Dr. Festus Ben
	16:30-16:50		Dr. Mohammed Salama

	16:50-17:10	Production Chemicals for the Oil and Gas Industry	Dr. Abdolreza Farhadian
	17:10-17:50	Luminescent Polymer Materials: A Material Science Perspective on Structure–Property–Function Relationships and Multifunctional Behavior	Prof. Seçil Çelik Erbaş
	17:50-18:05		Mr. Mohammad Saeid Abbasi
	论文推荐 Recommended Papers（18:05-18:10）		
	闭幕式 Closing Ceremony（18:10-18:20）		

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

IV. 嘉宾介绍

Presenter Introduction

主讲嘉宾

Keynote Speaker

Reza Shoja Razavi, Professor

Materials and Energy Research Center (MERC), Iran

Prof. Reza Shoja Razavi is a leading expert in Additive Manufacturing and Laser Material Processing at the Materials and Energy Research Center (MERC), Iran. He is internationally recognized for his groundbreaking contributions to materials science. Ranked among the Top 2% of Researchers Worldwide (Stanford & Elsevier), he was honored as the Pioneer Professor in Additive Manufacturing by the Iranian Metallurgical Society in 2024. Prof. Razavi has authored 7 books, over 200 peer-reviewed journal papers, and more than 15 patents in laser technologies and surface science and engineering. His award-winning book Additive Manufacturing by Direct Metal Deposition (2019) highlights his impact on industrial applications. He served as Vice President of the Iranian Society of Surface Science and Technology (2017−2023) and has delivered keynote lectures at numerous international conferences. Throughout his career, he has supervised more than 30 PhD and 70 Master′s students and has played a pivotal role in advancing laser material processing, nanostructured materials, and direct metal deposition. His work continues to drive innovation in advanced manufacturing and materials science on a global scale.

Nour Fathi Shehata Attia, Professor

National institute of standards, Egypt

Dr. Nour Fathi Shehata Attia is a Full Professor of the Gas Analysis and Fire Safety Laboratory at Egypt's National Institute of Standards (NIS), specializing in green nanomaterials for energy and environmental sustainability. His pioneering research develops bio-based nanoporous materials (MOFs, porous carbons) for hydrogen storage, CO_2 capture, and wastewater treatment; designs multifunctional flame-retardant/antibacterial nanocoatings for textiles and polymers; and engineers

scalable graphene synthesis for smart materials. With a PhD from Gwangju Institute of Science and Technology (South Korea), he holds 10 international patents (including US/Korean grants), has authored 110+ publications in top journals, and leads national projects funded by STDF/ASRT. Honored with Egypt's First-Class Medal of Excellence from the President (2020) and ranked among the world's Top 2% scientists (Stanford/Elsevier 2021–2024), his innovations bridge advanced materials science with industrial metrology and climate solutions.

V. Arumugaprabu, Professor & Dean (SMACE)

Kalasalingam Academy of Research and Education, India

V. Arumugaprabu holds Ph.D in Composite Materials and currently works as the Professor and Dean at School of Mechanical, Aero, Auto and Civil Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India. His areas of expertise are Particulate composites, Natural Fiber Reinforced Composites and Machining of Composite Materials. He completed one sponsored project and has published 120 articles in the international journals indexed in SCI/Scopus, 60 conference papers and 11 Book/Book Chapters. He also serves as the reviewer and editorial member for some journals. He also attended some academic conference and delivered his lectures. For his outstanding achievement, he is recognized as the Top 2% Scientist (2023-2024) in the world by Elsevier and Stanford University.

Seçil Çelik Erbaş, Associate Professor

Manisa Celal Bayar University, Turkey

Seçil Çelik Erbaş holds Ph.D in Organic Chemistry and is currently working as the Associate Professor at Department of Metallurgy and Materials Engineering, Manisa Celal Bayar University, Turkey. Her research interests focus on synthesis, structural characterization, spectroscopic analysis of fluorescent molecules, and production, thermal characterization, thermomechanical characterization, mechanical testing of polymer matrix composite materials. She is involved in 10 research projects as the Project Leader and Researcher and has published more than 10 articles in SCI journals and 18 papers in conference proceedings.

Nguyen Duong Nam, Associate Professor & Vice Dean

Vietnam Maritime University, Vietnam

Nguyen Duong Nam received a degree of Dr of Materials Science and Engineering in 2016 and is currently the Vice Dean and Associate Professor at School of Mechanical Engineering, Viet Nam Maritime University (VMU). His research focuses on the mechanism of phase transformation process in metal, heat treatment process, etc. He has published 50+ international scientific articles.

Ahmed Mourtada Elseman, Associate Professor

CMRDI, Egypt

Ahmed Mourtada Elseman is an Associate Professor and Acting Head of the Electronic and Magnetic Materials Department at the Central Metallurgical Research & Development Institute (CMRDI) in Egypt. With a strong educational background in Inorganic and Analytical Chemistry, he has a B.Sc., M.Sc., and Ph.D. from the Faculty of Science at Al-Azhar University in Egypt. His research focuses on perovskite solar cells, and he has been recognized for his contributions to the field, including being ranked 1st in Africa and Egypt for his work on low-cost perovskite solar cells. He has an H-index of 26 from Scopus and 29 from Google Scholar citations.

Peeyush Phogat, Researcher

Netaji Subhas University of Technology, India

Peeyush Phogat got his PhD in Physics from the Department of Physics, Netaji Subhas University of Technology, India in 2025. He worked as the Project Associate at SCIR-NIScPR. His research interests lie in electrochemical application, thin films, solar cells, sodium ion batteries, etc. He has published some significant journal papers and books/book chapters. He also attended some academic conferences and delivered his presentations. Dr. Peeyush Phogat is the Editorial Board Member in the journal of Material Science and Technology Research and the Academic Board Member of Global Open Share Publishing.

Nur Adi Saputra, Researcher

National Research and Innovation Agency (BRIN), Indonesia

Dr. Nur Adi Saputra is a researcher at the National Research and Innovation Agency (BRIN) in Indonesia, specializing in materials science with a focus on sustainable energy storage solutions. Holding a Ph.D., his work centers on advancing carbonaceous materials derived from lignocellulosic biomass for supercapacitor applications. His recent groundbreaking study, "Producing Commercial Lignocellulose-Derived Carbonaceous Material by Superheated Physical Activation as a Promising Supercapacitor Electrode," demonstrates the successful fabrication of high-performance supercapacitors using optimized commercial wood-derived components. This research achieved a remarkable capacitance of 24 F/g, alongside energy and power densities of 30 Wh/kg and 3333 W/kg, respectively, highlighting the potential of lignocellulosic materials as eco-friendly alternatives for energy storage technologies. Dr. Saputra actively contributes to the scientific community through publications indexed in ORCID (0000-0003-1186-8529) and Scopus (57215010539), underscoring his commitment to innovation in materials science and sustainable energy systems.

Abdolreza Farhadian, Senior Researcher

Kazan Federal University, Kazan, Russia

Dr. Abdolreza Farhadian is a Senior Researcher at Kazan Federal University and Head of its Joint Research Laboratory with Dalian University of Technology (China, 2024–2029), specializing in eco-friendly flow assurance solutions for the energy sector. His pioneering work develops bio-based dual-function inhibitors (patented from vegetable oils/chitosan) that simultaneously prevent gas hydrate blockages and pipeline corrosion, alongside clathrate hydrate technologies for efficient methane/hydrogen storage and CO_2 capture. With a PhD in Petrochemical Industry and 50+ publications in high-impact journals (Energy, Chemical Engineering Journal, ACS Sustainable Chemistry), he leads projects funded by the Russian Science Foundation and Gazprom, holds 6 patents for sustainable oilfield reagents, and is ranked among the world's Top 2% scientists (Stanford/Elsevier 2024). His innovations advance greener hydrocarbon production and carbon management.

Ben Festus, Senior Lecturer & Director

Federal Polytechnic Ede, Osun State, Nigeria

Dr. Ben Festus is a distinguished material scientist and academic, holding a PhD in Physics with a specialization in Electronic Measurements and Instrumentation. Currently he is serving as a Postgraduate Research Fellow at the Department of Metallurgy, University of Johannesburg, South Africa, and also is the Senior Lecturer and Director at Directorate of Research and Development, Federal Polytechnic Ede, Osun State, Nigeria. His research interests focus on Material and Environmental Science, Sustainable Agro-waste Engineering Material modeling and High Entropy alloy. He has contributed significantly to the academic community through peer-reviewed publications in reputable Scopus-based journals and as a reviewer for various scholarly publications. Dr. Festus is also the visionary founder of the Centre of Advanced Materials and Research Development (CAMReD) at the Federal Polytechnic Ede. Beyond his academic achievements, Dr. Festus is recognized as a Chartered Scientist and Fellow of the Nigerian Institute of Science Laboratory Technology (NISLT), a registered member of the Institute of Physics London and the Nigerian Institute of Physics (NIP). Dr. Festus's research contributions have garnered recognition from prestigious funding bodies, including TETFUND, NCC, and the British Council, underscoring the high calibre of his research endeavours. His collaborative spirit, leadership, administrative acumen, industriousness, and creative problem-solving skills make Dr. Ben Festus a sought-after expert in multidisciplinary and intradisciplinary domains.

Mahdi Sabbaghian, Assistant Professor

University of Tehran, Iran

Dr. Mahdi Sabbaghian is an Assistant Professor at the University of Tehran's School of Metallurgical and Materials Engineering and a current Marie Curie Fellow at IMDEA Materials Institute, Spain. Specializing in magnesium alloys, his research focuses on microstructure, mechanical properties, and corrosion behavior, particularly in biodegradable $Mg-Zn$ systems processed via severe plastic deformation. With over 20 publications in top journals (Materials Science and Engineering A, Journal of Magnesium and Alloys), he bridges advanced materials characterization, biomaterials, and sustainable manufacturing. A recipient of the German Research Foundation (DFG) scholarship and international research experience in South Korea and Germany, Dr. Sabbaghian combines academic rigor with global collaboration, while mentoring students and

teaching courses in materials science and engineering.

Muhammad Mudassar, Researcher

University of Engineering and Technology, Lahore, Pakistan

Muhammad Mudassar got his Master of Philosophy in Applied Physics from University of Engineering and Technology, Lahore, Pakistan in 2023. He worked as the Teaching Fellow and RESEARCH ASSISTANT at UET, Lahore, Pakistan. He has published several articles in journals. And also is the Editorial Board Member of International Analytical Chemistry Awards Journal.

Aman Kumar, Assistant Professor

Swami Vivekananda Subharti University, Meerut, India

Aman Kumar got his PhD from Chaudhary Charan Singh University, Meerut, India in 2024, and currently is working as an Assistant Professor in Department of Physics, Faculty of Science, Swami Vivekananda Subharti University, Meerut, India. His research interests focus on the computational studies of Optical, Structural, Electronic, thermodynamics, mechanical, and transport Properties of Perovskite materials, and their Applications towards Photovoltaic and optoelectronics, etc. He has published 30 papers in journals and conferences, 14 books/book chapters, 4 patents. He also attends academic conferences and gives his presentations. Dr. Aman Kumar also is acting as the reviewer for various journals, and is the Life Member of Indian Association of Physics Teachers and IA ENG International Association of Engineers.

Mohamad Saeid Abbasi, Research Assistant

Isfahan University of Technology, Iran

Mohamad Saeid Abbasi is a dedicated researcher specializing in the development of advanced biomedical materials. Holding an M.Sc. in Materials Engineering from Isfahan University of Technology, his research focuses on innovative multifunctional coatings and scaffolds for

applications such as drug delivery, magnetic hyperthermia, antibacterial therapy, anticancer treatments, and bone tissue regeneration. He has authored numerous impactful publications in leading journals like International Journal of Biological Macromolecules, Surfaces and Interfaces, and Bioprinting. Currently active as a Research Assistant and Project Supervisor at Isfahan University of Technology, he also contributes as a reviewer for prestigious biomaterials journals. His expertise spans electrophoretic deposition, nanoparticle synthesis, 3D printing, and comprehensive material characterization.

Abbasali Sadeghi, Research Assistant

Islamic Azad University, Birjand Branch, Iran

Abbasali Sadeghi holds Ph.D. in Structural Engineering from Islamic Azad University, Mashhad, Iran in 2021. He currently works as a Research Assistant in Concrete Technology Research Center of Islamic Azad University, Birjand Branch, Iran. His current research interests are progressive collapse, reliability analysis, abnormal loads, and application of smart materials in buildings. He has published more than 90 papers in international journals and conferences. Dr. Abbasali Sadeghi also serves as the Editorial Board Member for some journals (including Advance Researches in Civil Engineering, Journal of Building Material Science...) and the reviewer of many international journals supported by Elsevier, John Wiley, Springer, SAGE, MDPI, Emerald and ASCE.

Mohammed Salama, Researcher

Chouaib Doukkali University, Morocco

Mohammed Salama got his Ph.D in Physics and Engineering from Chouaib Doukkali University, Morocco in 2024, and currently is the qualified Secondary School Teacher of Physics and Chemistry at Ibn Arabi High School, Sidi Bennour, Morocco. His research interests focus on the field of condensed matter physics and materials physics. He has published 16 scientific papers. He also serves as the reviewer for some international journals. Dr. Mohammed Salama also attends some academic conference and delivers his presentations.

Mudassir Ishfaq, Ph.D Candidate

University of Agriculture Faisalabad, Pakistan

Mr. Mudassir Ishfaq is a Ph.D. Candidate, specializing in computational design of functional materials for renewable energy and spintronics. His research focuses on alkaline-earth-based double perovskites (e.g., Sr_2LaTaO_6, Ba_2NdNbO_6) for optoelectronic, thermoelectric, and spintronic applications, leveraging first-principles DFT simulations (VASP, WIEN2k). With 10+ peer-reviewed articles in Q1 journals (Materials Chemistry and Physics, Journal of Physics and Chemistry of Solids), his work reveals novel strategies to enhance material efficiency in energy harvesting devices. Currently finalizing his Ph.D. at the University of Agriculture Faisalabad, he combines academic roles as Lecturer/Department Head with expertise in Python-based data analysis and high-throughput materials screening (Materials Project/OQMD).

V. 组织信息

Organization

会议主席

Conference Chairman

Zhenling Liu, Associate Professor

Henan University of Technology, China

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

主办方

Sponsor

ICMSDE-2025 国际会议主办单位国际管理科学与工程技术协会（IAMSET）于 2010 年在香港注册成立，为合法运营的专业机构，在郑州设立有办事处。业务范畴包括理学、自然科学、社会科学、工程科学、信息学、医学等，涵盖了国际 STEM 的全部学科：科学（Science），技术（Technology），工程（Engineering），数学（Mathematics）等，并通过组织国际学术会议、论坛、研讨会等多种学术交流活动，为来自世界各地的专家学者建立了学术交流的优质平台。

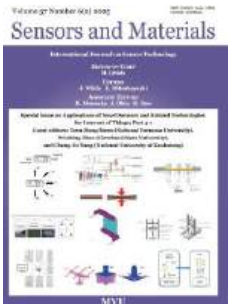
协会通过组织并承办技术研讨会与来自全球的学术机构或个人建立良好的合作关系，为各国学者提供互相学习、自由交流的平台，为年轻学者提供机会，使其能够在实践中撰写优秀学术成果、了解学术成果出版的操作流程，从而提升自身以及团队的学术水平。同时为推进和传播管理科学、工程技术等前沿研究提供强有力的支持。

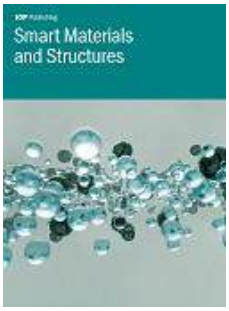
国际管理科学与工程技术协会与多家世界知名出版集团和多位期刊主编建立了良好的合作关系，如学术出版社（Academic Press），施普林格出版社（Springer），美国机械工程师协会（ASME），美国科学出版社（American Scientific Publishing）等出版社。

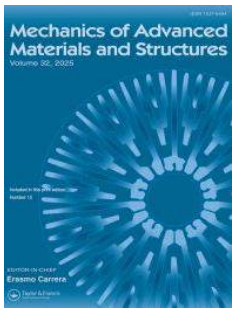
协会承接国际学术会议举办，国际人才引进，高分学术论文指导，优秀论文推荐发表，论文推广等学术活动。国际管理科学与工程技术协会努力践行以上使命，以加强与各国学术机构之间的合作，促进国际学术交流。

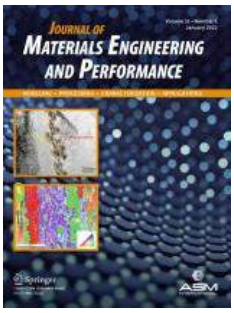
VI. 期刊支持

Related Journals









VII. 联系我们

Contact Us

联系电话（Tel）:

+86-19137184507 (Ms. Wang)

邮箱（Email）:

icmsdemeet@163.com (ICMSDE Conference)
aaliserellie@gmail.com (Ms. Wang)

CMSE

主办方 ➤

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