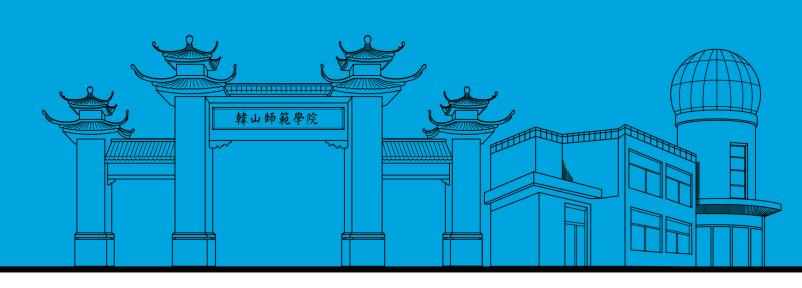


The 11th International Conference on Fuzzy Systems and Data Mining

November 14-17, 2025 Chaozhou, Guangdong, China

Conference Program





FSDM 2025 CONFERENCE PROGRAM

November 14-17, 2025 Chaozhou, China

For FSDM 2025 Academic Exchange Only

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Part I Conference Schedule Summary

DAY 1 | November 14, 2025 (Friday)

At the gateway of Conference Room C802 (8F), Information Technology Building,

Hanshan Normal University (HSNU)

Address: Qiaodong Street, Xiangqiao District, Chaozhou City, Guangdong Province, China

14:00-18:00 **Registration**

Notes for registration:

* Please provide your name or abstract/paper ID for registration.

*Please pick up all the conference materials at the registration desk (Conference Badge, Conference Program, Tote Bag, Dining Tickets, Field Investigation Tickets.).

*For the first time you enter HSNU campus, please show your passport (for international attendees) or Chinese ID card (for Chinese attendees) to the gatekeeper, volunteers will then guide you to the registration desk. During the conference, please wear your FSDM Conference Badge all the time. For subsequent campus entries, simply show your Conference Badge to the gatekeeper for access.

DAY 2 | November 15, 2025 (Saturday)

Location: Conference Room C802 (8F)

Opening and K	eynote Speeches
Hosts:	Prof. Dimiter Velev, University of National and World Economy, Bulgaria Dr. Konstantin Ryabinin, Heidelberg University, Germany
09:00-09:05	Opening & Welcoming Speech Prof. Gengzhong Zheng, Vice-President, Hanshan Normal University, China
09:05-09:45	Keynote Speech 1: Adaptive Machine Vision and Small Object Detection Prof. Hongbin Ma, Beijing Institute of Technology, China
09:45-10:25	Keynote Speech 2: Theory and Computation of Fuzzy Volterra Integral Equations with Discontinuous Kernels Prof. Samad Noeiaghdam, Henan Academy of Sciences, China
10:25-10:45	Group Photo Location: HSNU Library Main Entrance Steps
10020 10010	Group Thoto Eventual Plantance Steps
10:45-11:05	Coffee Break
10:45-11:05	Coffee Break Keynote Speech 3: Applied Intelligence: Designing Future-Ready Systems for Industry and Healthcare
10:45-11:05 11:05-11:45	Coffee Break Keynote Speech 3: Applied Intelligence: Designing Future-Ready Systems for Industry and Healthcare Prof. Nara Samattapapong, Suranaree University of Technology, Thailand

14:40-17:25 18:30-20:30	Oral Session on Interdisciplinary Field of Fuzzy Logic a Welcome Banquet	
14:20-14:40	Invited Speech 2: Visual Mining of Astrometric Solution Astrometric Data Analysis Dr. Konstantin Ryabinin, Heidelberg University, German	

DAY 3 | November 16, 2025 (Sunday)

Location:	Conference Room C802 (8F)
09:00-09:20	Invited Speech 3: Multi-Granularity Group Consensus Modeling and Applications in the Context of Digital Intelligence Prof. Chao Zhang, Shanxi University, China
09:20-09:40	Invited Speech 4: A Machine Learning Surrogate Meshfree Approach for Thermal Analysis with Moving Heat Sources Prof. Felix Raymundo Saucedo Zendejo, Autonomous University of Coahuila, Mexico
09:40-12:25	Special Session on "Applied Mathematics and Intelligent Algorithms for Modern Industry (AMIAMI), 2nd Edition"
12:25-14:00	Lunch Break - Hanyuan Cafeteria
14:00-14:20	Invited Speech 5: Feature Selection Approach Based on Improved Fuzzy C-Means with Principle of Refined Justifiable Granularity Assoc. Prof. Wentao Li, Southwest University, China
14:20-17:20	Special Session on "Artificial Intelligence and Big Data in Education (AIBigEdu)" & Oral Session on Fuzzy Set Theory, Algorithm and System
17:20-17:40	Awarding and Closing Ceremony
Closing Speech:	Prof. Wei Huang , Acting Vice Dean of the School of Computer & Information Engineering, Hanshan Normal University, China

DAY 4 | November 17, 2025 (Monday)

08:30-16:30 Field Investigation

Gathering Location: South Gate of Hanshan Normal University

Notes: Gather at the South Gate of Hanshan Normal University at 08:20 and depart promptly at 08:30.

When boarding the tour bus, present your Field Investigation Ticket. All attendees must bring their valid identification: international attendees a passport, and Chinese attendees a Chinese ID card.

Part II Opening & Welcoming Remarks

Prof. Gengzhong Zheng, Vice-President, Hanshan Normal University, China

Biography: Prof. Gengzhong Zheng is the vice president of Hanshan Normal University (China), currently serving as a member of the university's leadership team. He holds a Ph.D. in Computer Science and supervises master's students. His research focuses on data science, complex networks, and network optimization. Prof. Zheng also serves as the director of the Development Planning Office and the Research Office. He is the head of the Guangdong Provincial Key Laboratory of Data Science and Smart Education and leads an innovation team in this

field. His publications include over 40 papers in SCI-indexed and EI-indexed journals, and he serves as a reviewer for several academic publications.

Part III Keynote & Invited Speeches

Keynote Speech 1: Adaptive Machine Vision and Small Object Detection

Speech Time: 09:05-09:45, November 15, 2025 (Saturday)

Speaker: Prof. Hongbin Ma, Beijing Institute of Technology, China



Biography: Dr. Hongbin Ma has been a Professor at the School of Automation, Beijing Institute of Technology since he joined Beijing Institute of Technology in 2009. He received his bachelor's degree from Zhengzhou University in 2001 and doctoral degree from the Academy of Mathematics and Systems Science, Chinese Academy of Sciences in 2006. He joined Bell Labs Research Center at Beijing in March of 2006 and later joined Temasek Laboratories, National University of Singapore in August 2006 as a Research Scientist. His research focuses on adaptation, learning and recognition, especially adaptive estimation and control, as well as their

applications in robots, smart cars, and UAVs. He is also a senior member of IEEE and Chinese Association of Automation. Dr. Ma is the principal investigator of several scientific projects supported by National Natural Science Foundation of China (NSFC), the program of New Century Excellent Talents in University by Ministry of Education, the program of Beijing Outstanding Talents Project, and so on. He also won several awards, such as Beijing Natural Science Award, Wu Wenjun Artificial Intelligence Award, Outstanding Research Work Award, etc. Dr. Ma has published more than 100 academic papers in reputable journals or conferences. And under his supervision, a dozen students have performed well in scientific research, innovation contests, and are establishing themselves.

Abstract: Machine vision systems face significant challenges in detecting small objects due to their limited visual cues, scale variations, and cluttered backgrounds. This report introduces an adaptive framework merging machine vision with small object detection, enabling dynamic adjustment of feature extraction and decision-making based on scene complexity. Our work integrates various novel technologies for efficiently handling uncertainties. This adaptive paradigm advances machine vision capabilities in autonomous robotics, industrial inspection, and aerial surveillance scenarios.

Keynote Speech 2: Theory and Computation of Fuzzy Volterra Integral Equations with Discontinuous Kernels

Speech Time: 09:45-10:25, November 15, 2025 (Saturday)

Speaker: Prof. Samad Noeiaghdam, Henan Academy of Sciences, China

Biography: Prof. Samad Noeiaghdam, PhD of Applied Mathematics, is Research Professor of Henan Academy of Sciences, Zhengzhou, China. He was an Associate Professor at Irkutsk National Research Technical University, and a Senior Researcher in South Ural State University, Russia during 2019-2024. His main research interests are numerical analysis, solving mathematical models, fuzzy problems with applications, energy system problems, load leveling in energy storage, supply and demand systems, MHD and heat and mass transfer problems. He has more than 190 publications including several high-quality papers in top journals as well as books, chapters and conference papers.

For his high-level achievements in research and contributions to mathematical advancement globally, he has been recognized as one of the top 2% scientists by Stanford University. He is the member of editorial board and guest editor in various journals and special issues.

Abstract: This study investigates linear and nonlinear fuzzy Volterra integral equations with piecewise continuous kernels. Existence and uniqueness results are established, and a constructive scheme based on successive approximations is thereby proposed. Numerical experiments are performed for both linear and nonlinear models, supported by error analysis and graphical illustrations. To enhance reliability, the CESTAC method in conjunction with the CADNA library is applied to determine the optimal approximation, optimal fuzzy distance, and optimal step size of the algorithm. Comparative results under different fuzzy parameters confirm the efficiency of the proposed scheme.

Keynote Speech 3: Applied Intelligence: Designing Future-Ready Systems for Industry and Healthcare

Speech Time: 11:05-11:45, November 15, 2025 (Saturday)

Speaker: Prof. Nara Samattapapong, Suranaree University of Technology, Thailand



Biography: Asst. Prof. Dr. Nara Samattapapong is a highly respected academic in Industrial Engineering, currently serving at Suranaree University of Technology, Thailand. With a Doctorate in Mechanical Engineering and over 20 years of combined experience in academia and industry, Dr. Samattapapong has built a strong reputation in the areas of intelligent systems, simulation-based optimization, and modern industrial practices. His work emphasizes the application of simulation, data analytics, and AI-enhanced tools to improve efficiency across production, logistics, and quality control processes. Dr. Samattapapong has published over 20 research papers in leading international conferences and journals, including topics such as

OEE systems, lean manufacturing, simulation-driven scheduling, and resource optimization using metaheuristics. His recent studies explored intelligent approaches to enhance explosive manufacturing, water processing, and packaging systems. Recognized for his contributions, he has received national awards for excellence in automation and analytical software applications. In addition to his research, he has played key roles in academic program development, quality assurance, and curriculum leadership. As a keynote speaker, he brings deep insights into how intelligent systems are transforming industrial operations, bridging theory with practical solutions that address real-world manufacturing challenges in the era of Industry 4.0.

Abstract: In the era of Industry 4.0 and digital transformation, the design of future-ready systems requires more than automation; it demands applied intelligence, a strategic fusion of simulation, mathematical modeling, and data-driven optimization. This keynote explores how intelligent systems, grounded in applied mathematics, are reshaping operations in both industrial and healthcare contexts. Drawing from over two

decades of experience, the speaker presents real-world case studies involving simulation-based production planning, metaheuristic-driven resource optimization, and smart monitoring systems implemented in sectors ranging from explosive manufacturing and water processing to packaging and healthcare logistics. The talk highlights how applied intelligence enables predictive decision-making, adaptive workflows, and efficiency improvements under uncertain and dynamic environments. Special attention will be given to the convergence of industrial engineering tools and smart healthcare systems, demonstrating how simulation and AI can be leveraged to optimize hospital operations, manage public health logistics, and enhance service delivery. By unifying theoretical rigor with practical deployment, this talk aims to equip researchers, engineers, and policymakers with actionable frameworks for building intelligent, scalable, and resilient systems capable of addressing the evolving demands of modern industry and healthcare.

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Invited Speech 1: Challenges of Quantum Computing Application for Accelerated Business Innovation

Speech Time: 14:00-14:20, November 15, 2025 (Saturday)

Speaker: Prof. Dimiter Velev, University of National and World Economy, Bulgaria

Biography: Prof. Dr. Dimiter Velev is with the Department of Informatics at the University of National and World Economy (UNWE), Sofia, Bulgaria (https://www.unwe.bg/en/). Dimiter Velev is the Director of the Science Research Center for Disaster Risk Reduction at UNWE. He holds a M.Sc. degree in Electro-Engineering from the Sofia Technical University, Bulgaria and a Ph.D. degree in Computer Systems, Complexes, Systems and Networks from the Pukhov Institute for Modelling in Energy Engineering at the National Academy of Sciences of Ukraine. Prof. Velev is a member of the International Federation for Information Processing (IFIP)

(http://ifip.org/), in which he is the Chair of Technical Committee #5 – Information Technology Applications (https://www.ifip.org/bulletin/bulltcs/memtc05.htm). Prof. Velev is also the Chair of the IFIP Domain Committee on Quantum Computing. Prof. Velev's main areas of academic and R&D interest are Information Technology, Integrated Information Systems for Disaster Management, Artificial Intelligence, Cybersecurity, Virtual Reality, Quantum Computing. He is a regular chair and a keynote speaker of conferences in Asia and Europe and a reviewer of many scientific publications in journals and conferences.

Abstract: Quantum Computing (QC) is a new generation of computing technologies based on the principles of quantum mechanics. These technologies offer significant advantages over traditional computer systems in solving complex problems that would take years for classical computers. Although OC is still in the experimental and early application stages, its potential impact on businesses and industries is profound. The ability of QC to process vast amounts of information at incredible speeds and find solutions to previously unsolvable problems could accelerate innovation, revolutionize industries and create new business opportunities. These technologies can be used to solve specific, real-world business problems that may include big data processing, complex calculations, process optimization, cybersecurity, quantum machine learning to improve business analytics. Businesses that begin investing in quantum technologies will have significant competitive advantages. To realize the potential of QC, companies must invest in strategic partnerships with technology companies, train specialists and experiment with pilot projects. Early adopters will gain a competitive advantage by optimizing operations, creating innovative products and transforming business models. In the era of quantum supremacy, business innovation will be defined by the ability to master quantum potential not only as a tool, but also as a catalyst for radical change. The purpose of the invited speech is to examine how OC can accelerate innovation processes in business, as well as to outline practical aspects and challenges that pave the road to implementing this disruptive technology in the corporate environment.

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Invited Speech 2: Visual Mining of Astrometric Solution: Let Numerics Meet Art in Astrometric Data Analysis

Speech Time: 14:20-14:40, November 15, 2025 (Saturday)

Speaker: Dr. Konstantin Ryabinin, Heidelberg University, Germany

Biography: Dr. Konstantin Ryabinin is a research worker at the Astronomisches Rechen-Institut (ARI) (https://zah.uni-heidelberg.de/de/institute-des-zah/ari), Center for Astronomy of Heidelberg University, Germany. Currently, he is conducting his Computational Science, Software Engineering, and Data Mining research in a collaborative project on data reduction within the Japan Astrometry Satellite Mission for INfrared

Exploration (JASMINE)

(https://www.isas.jaxa.jp/en/missions/spacecraft/future/jasmine.html). He graduated from

the Faculty of Mechanics and Mathematics of Perm State University in 2011 and defended his PhD in Computer Science in 2015. Since 2011, he has been deeply involved in research of Scientific Visualization, Visual Analytics, Human-Computer Interaction, Computational Geometry, Computer Graphics, Multimedia, Ontology Engineering, Semantic Data Mining, Multiplatform Portability, Ubiquitous Computing, and the Internet of Things. He is a leading developer of the ARI JASMINE Astrometric Solver, the SciVi visual analytics platform, and the NChart3D data visualization library. He published more than 70 papers in scientific journals and proceedings of international conferences in the area of his research expertise.

Abstract: Space astrometry aims to determine stellar parameters like angular positions and proper motions on the celestial sphere based on satellite telescope observations, which allows for building star catalogues and helps to understand the structure of the Universe. Even small astrometric missions pose Big Data problems and require high-performance computers, as billions of observations must be taken into account to achieve high accuracy in the values of stellar parameters. Astrometric solvers implement complex calibration models to compensate for distortions of observations caused by imperfections in telescope optics and detectors, deviations in satellite attitude, relativistic effects of light bending, etc. We propose leveraging visual data mining to validate the astrometric solution and its underlying calibration model, as well as to profile the performance and numerical stability of astrometric solvers. If the visual means involved are designed well, they possess both cognitive clarity and visual aesthetics. Herewith, visual aesthetics is not only a nice-to-have feature but also an essential part of visual data mining with twofold meaning. First, it makes the research process and results more attractive for scientists, and second, it allows exporting the research to a wider audience, having not only scientific but also artistic and promotional value. In this work, we integrate the ontology-driven semantic visual data mining platform SciVi with the high-performance astrometric solver we made for the Japan Astrometry Satellite Mission for INfrared Exploration (JASMINE). Using the adaptive data processing and rendering capabilities of SciVi, we create artistic visualization of the solving process to profile the solver and promote JASMINE.

Invited Speech 3: Multi-Granularity Group Consensus Modeling and Applications in the Context of Digital Intelligence

Speech Time: 09:00-09:20, November 16, 2025 (Sunday) **Speaker: Prof. Chao Zhang,** Shanxi University, China



Biography: Dr. Chao Zhang is a Professor at the Institute of Intelligent Information Processing, Shanxi University, China. With a primary focus on data mining, machine learning, granular computing, and intelligent decision-making, he has made significant contributions to the field. Over the years, he has authored over 80 papers published in reputable journals such as IEEE Transactions on Computational Social Systems, IEEE Transactions on Fuzzy Systems, and IEEE Transactions on Consumer Electronics. His work has been recognized with numerous awards, including the first prize for

Outstanding Achievements in Scientific Research in Institutions of Higher Learning in Shanxi Province, the second prize for Outstanding Achievement Award in Social Sciences in Shanxi Province, and the ACM Excellent Doctoral Dissertation Award in Taiyuan Chapter, and being listed among the World's Top 2% of the Most-cited Scientists 2024 by Stanford University. Additionally, he has an H-index of 24, further highlighting the impact of his research. He has also been the principal investigator for seven projects sponsored by the National Natural Science Foundation of China and other funding sources, demonstrating his leadership in driving research forward. In addition to his research, Prof. Zhang has authored three academic monographs, held two national invention patents, and served on the editorial boards of several journals, including Computational Intelligence and International Journal of Cognitive Computing in Engineering. He is an active member of the academic community, having contributed as a reviewer for numerous journals, such as IEEE TKDE, IEEE/CAA JAS and as a Program Committee member for various conferences, such as International Conference on Neural Information Processing (ICONIP). His dedication to fostering interdisciplinary innovation in artificial intelligence and data science has earned him recognition as a "Sanjin Talent", a Core Member of Science and Technology Innovation Teams of Shanxi Province, and the Wenying Young Scholars of Shanxi University.

Abstract: In the context of digital intelligence, interactions among intelligent agents are becoming increasingly complex, and the issue of information asymmetry is intensifying. Traditional group consensus methods struggle to address the challenges posed by highly dynamic, multi-source, and large-scale decision-making scenarios. Inspired by granular computing, multi-granularity computing technologies provide a new theoretical framework and implementation pathway for group consensus decision-making in complex environments by identifying decision-making patterns at different levels and formulating differentiated consensus strategies. This report focuses on multi-granularity group consensus modeling and its applications. First, for group consensus under incomplete multi-scale information systems, a social network-driven three-way group consensus method is constructed to achieve the multi-granularity classification of agents and the formulation of differentiated strategies. Second, for group consensus in online review scenarios, the attribute weights are determined based on graph convolutional networks, and a conflict degree-driven two-stage quantum consensus-reaching process is further designed. Third, for group consensus in multi-modal data scenarios, an artificial intelligence-generated content and optimization-driven overlapping community detection method is proposed to support group consensus achievement. Finally, the theoretical models are applied to the construction of domain-adapted large language models to validate their effectiveness and scalability in various practical applications.

Invited Speech 4: A Machine Learning Surrogate Meshfree Approach for Thermal Analysis with Moving Heat Sources

Speech Time: 09:20-09:40, November 16, 2025 (Sunday)

Speaker: Prof. Felix Raymundo Saucedo Zendejo, Autonomous University of Coahuila, Mexico

Biography: Dr. Felix Raymundo Saucedo Zendejo has obtained his doctorate in Engineering Sciences at the National Technological Institute of Mexico conducting research with a specialty in Computational Fluid Mechanics, Numerical Methods, Mesh-Free Methods and Simulation of industrial processes. He has a master's degree in materials science from the National Technological Institute of Mexico and has a bachelor's degree in physics from the Faculty of Physico-Mathematical Sciences of the Autonomous University of Coahuila. Since October 2024 he is the head of the Research Center for Applied Mathematics from the Autonomous University of Coahuila. Over the

past years, Dr. Felix Raymundo Saucedo Zendejo has been working on meshfree methods developing for the analysis and modeling of different engineering processes and physical phenomena. Results obtained on his research have been published in several international journals indexed in JCR/SCOPUS with impact factors and some of them have been cited in several research articles. He has collaborated on research projects with international partners from the University of Minho in Portugal, Perm National Research Polytechnic

University in Russia, Silesian University of Technology in Poland, and Suranaree University of Technology in Thailand. He has extensive experience as a teacher in undergraduate lectures such as Classical Mechanics, Transport Phenomena, Electricity and Magnetism, Simulation, and Computational Physics, as well as in postgraduate lectures such as Applied Mathematics, Programming, and Computational Physics, among others. Abstract: This report proposes the development and implementation of an innovative machine learning surrogate meshfree approach for modelling heat transfer phenomena in industrial processes with moving heat sources. This approach is based on the Finite Pointset Method (FPM), a Generalized Finite Differences Method (GFDM) which is enhanced in this work with machine learning techniques for the construction of shape functions. The objective of this development is to overcome the limitations posed by commonly used mesh-based methods and to improve the efficiency found in standard mesh-free methods. The tool resulting from this work contributes to the positive impact of mathematical modelling developments with mesh-free methods and expands their applications in areas of science and industry. The accuracy, feasibility, and robustness of this new formulation are evaluated in detail through a series of case studies, starting with simple cases, for which analytical solutions exist, and evolving to complex and practical examples, representative of selected applications involving moving heat sources. The results of these examples demonstrate that this meshless numerical tool is promising, and furthermore, similar strategies could be proposed for modelling other physical phenomena or their coupling.

Invited Speech 5: Feature Selection Approach Based on Improved Fuzzy C-Means with Principle of Refined Justifiable Granularity

Speech Time: 14:00-14:20, November 16, 2025 (Sunday) **Speaker: Assoc. Prof. Wentao Li**, Southwest University, China

Biography: Dr. Wentao Li received a Ph.D degree from the Department of Mathematics, Harbin Institute of Technology, Harbin, in 2019. From 2016 to 2018, he was a Joint Ph.D Student with the University of Alberta, Edmonton. He is currently with the College of Artificial Intelligence, Southwest University, Chongqing. His current research interests include those in granular computing modeling and uncertainty measurement theory and applications. In recent years, he has published over 60 articles in international journals such as IEEE TCYB, IEEE TFS, IEEE TNNLS, IEEE TSMC, IEEE TAI, IEEE TCE, FSS, INS, AIRE, IJAR, and many others. Among them, 7 papers have been selected as "ESI

Highly Cited Paper", and 2 papers have been selected as "ESI Hot paper". He has been the eight project leaders for National Natural Science Foundation of China, China Postdoctoral Science Foundation, National Natural Foundation of Chongqing, Chongqing Municipal Education Commission Science and Technology Innovation projects. He served as the Associate Editor of Discover Artificial Intelligence, the Editorial Board of Computers, Materials & Continua, and Data Science and Management.

Abstract: Fuzzy C-Means (FCM) is a clustering algorithm based on partition of the universe. However, the partition generated by an equivalence relation is strict in practical application and exhibits relatively poor fault-tolerant mechanism. In this paper, a novel binary relation based on improved FCM with the principle of refined justifiable granularity is presented. Different expressions of the proposed binary relation under different values of weight parameters are discussed, and the changes of the properties of the binary relation under different parameter values are provided. By measuring the significance of attributes in the feature space, a feature selection method, called forward heuristic feature selection (FHFS), is designed to construct the low-dimension feature space based on maximizing the original data and information retention through the defined degrees of aggregation and dispersion. It is shown how the results of feature selection and classification performance vary when the values of the weight factor locate in different ranges. To illustrate the superiority and effectiveness of the proposed FHFS algorithm, nine high-dimensional datasets and eight image datasets from UCI repository are used and compared with other feature selection methods, respectively. The results of experimental evaluation and the significance test show that the proposed learning mechanism is a superior algorithm.

Part IV Poster Presentation

Poster Presentation Guidelines

Materials Provided by the Conference Organizer:

- X Racks & Base Fabric Canvases
- Adhesive Tapes or Clamps

Materials Provided by the Presenters:

- ➤ Homemade Posters
- Posters Printed by Conference

Requirement for the Posters:

Material: not limited

Size: 160cm (height) ×60cm (width)



X-Rack

Best Poster Presentation Awards

Selection Criteria:

- > Research Quality
- Presentation Skill
- Design

Selection Procedure:

- > 10 volunteers will be invited from the participants to serve as the judges to review the posters (Note: A judge would not have a poster or know the participant exhibiting a poster)
- > 2 red stickers and 2 green stickers will be provided to the judges. The red sticker stands for "Research Quality" with a value of 2 points; the green sticker stands for "Presentation Skill and Design" with a value of 1 point
- Each judge will go around the poster session and give the stickers to the poster which he/she thinks is of high quality or well designed and well presented, please be noticed that each judge may not award two red or two green stickers to the same poster (one red and one green sticker are acceptable)
- After the poster session, the conference secretary will count the points from each poster and the best poster presentations with more points will be selected (selection ratio: 1 in 10). If there is a tie, the one with more red (Research Quality) stickers wins. For a total of twenty poster presentations, Two Best Poster Presentations will be chosen.
- ➤ **Best Poster Presentation Awards** will be announced at the closing ceremony and results announced on FSDM 2026 website.

Samples of Stickers





List of Posters

Time:	11:45-12:25, November 15, 2025 (Saturday)
Location:	Conference Room C802 (8F)
FSDM4704	Research on the Method of Calculating the Effective Position of Information Packets for On-board Equipment of Multiple Units Mr. Luxi Wang, China Railway Eryuan Engineering Group Co., Ltd, China
FSDM4712	Multimodal Machine Learning Approach for Diabetes Risk Prediction Ms. Fengqing Chen, Hanshan Normal University, China
FSDM4714	Co-Creation and Digital Identity Construction in Public Art Installations: A Case Study of "MOMO ECHO" Ms. Huijia Zhang, Guangzhou Academy of Fine Arts, China
FSDM4715	Based on Generative AI: Research on the Development of Digital Ecological ArtA Case Study of The Garden of Cytological Delights Ms. Lezi Lian, Guangzhou Academy of Fine Arts, China
FSDM4716	A Study on the Transformative Creative Paradigm after AI Intervention in the Digital Creation Workflow Mr. Jihui Wang, Guangzhou Academy of Fine Arts, China
FSDM4733	A Multi-Level Feature Fusion Network Integrating BERT TextCNN Prof. Yangwu Zhang , China University of Petroleum-Beijing at Karamay, China
FSDM4762	A Self Attention Neuro Fuzzy Inference System for Time Series Prediction Mr. Qiao Shi, Shenzhen University, China
FSDM4764	Deep Neural Fuzzy System-based Track-to-Track Association Method for Heterogeneous Sensors Mr. Xuehao Geng, Shenzhen University, China
FSDM4765	Fuzzy Attribute Information Embedding to ViT for Aircraft Re-Identification Mr. Yusi Fu, Shenzhen University, China
FSDM4788	Mathematical Framework to Enable Adaptive Neuron Transitions Mr. Bentley Yu-Sen Lin, Safeware Technologies Inc., Ltd
FSDM4805	Adaptive Multiquadric Shape Control in Differential Quadrature for Solving the Poisson Equation Asst. Prof. Krittidej Chanthawara, Rajamangala University of Technology Isan, Thailand
FSDM4813	Lightweight AI Agents Reconstructing the Virtual Teaching-Research Landscape in County and Rural Areas Prof. Yinghui Zhu, Hanshan Normal University, China
FSDM4817	Bearing-Doppler Target Tracking by ANFIS based Deep Fuzzy System Mr. Hao Huang, Shenzhen University, China
FSDM4821	A New Compression Strategy for Spatial Co-location Patterns Based on Fuzzy β Covering Mr. Chunhu Luo, Yunnan Normal University, China
FSDM4825	Federated Reinforcement Learning-Based Adaptive Routing for Military Tactical Networks Mr. Chulmin Yun, Chung-Ang University, South Korea
FSDM4828	Design of a Low-Cost Quadruped Robot for Education Dr. Zhongxing Peng, Hanshan Normal University, China
FSDM4833	YOLOv8-Based Military Video Threat Analysis and Key Frame Selection Mr. Sungbin Kim, Chung-Ang University, South Korea
FSDM4845	Machine Learning in the Identification, Classification, and Treatment of Speech Sound Disorders: A Survey Prof. Man-Ching Yuen, HKCT Institute of Higher Education, China

FSDM4848	Intelligent and Immersive Games for Training and Therapy in a Low-cost Portable Cave Mr. Chi-Wai Yung, Hong Kong Shue Yan University, China
FSDM4849	Identifying Dyslexia of Traditional Chinese by using Machine Learning Methods Prof. Man-Ching Yuen, HKCT Institute of Higher Education, China

Part V Oral Presentation

Oral Presentation Guidelines

- The regular oral presentation is 15 minutes including 2-3 minutes for Q&A; the invited speech is 20 minutes including 2-3 minutes for Q&A.
- For oral presentations, please make the following preparations:
 - 1) The presentation PowerPoint or PDF file should be formatted with figures and tables included; plain text is not recommended.
 - 2) Speakers are recommended to bring their presentation data in the form of PPT or PDF file by a USB memory stick and send one copy to the organizing committee as a backup via email fsdm@fsdmconf.org or upload it to the submission system via clicking "More" > "Upload Oral Files". For those who have not sent a file to the committee or any update needed, please copy it to the laptop in the session room about 15 minutes before the starting time, and make sure it could be normally displayed.
- ♣ The PPT file for oral presentation could be designed as you like with requirements as below:
 - ✓ The conference logo should be added to each PPT slide (a ppt sample can be downloaded via "Files Download" at FSDM2025 homepage)
 - ✓ Paper ID, title, presenter and affiliation information should be indicated in the first slide
 - ✓ Each slide should be concise, uncluttered and readable from a distance
 - ✓ Include only key words and phrases for visual reinforcement
- 4 All speakers should inform the Session Chair (before the start of your Session) that you are in the meeting room.
- 4 At the conclusion of each oral session, the session chair will formally present a signed and stamped oral presentation certificate to each presenter and take individual photos with them. Following this, the session chair will join all presenters for a group photo.

Best Oral Presentation Awards

Selection Criteria

The best presentation will be selected based on the following items:

- ✓ Research Quality
- ✓ Presentation Performance
- ✓ Language Presentation
- ✓ Interaction with Listeners
- ✓ PowerPoint Design
- ✓ Effective Communications

Selection Procedure

- An assessment sheet will be delivered to listeners before the session.
- Write the numbers of two candidates for best presentations and submit the filled assessment sheet (with the listener's name and signature) to the Session Chair before the session termination.
- The Session Chair will count the votes for each presentation and name the winner based on the maximal number of votes. To avoid any conflict of interest, only registered listeners are entitled to vote.

Three Best Oral Presentation Awards from three oral sessions will be announced at the closing ceremony and results announced on FSDM 2026 website.

Assessment Sheet Sample

Oral Presentation Assessment

Dear participants,

After carefully listening to the presentations of this session, please kindly recommend two excellent Oral Presentations with reference to the following evaluation criteria.

The Session Chair will count the votes from each presentation and select One Best Oral Presentation in this session. If there is a tie, the Session Chair will make the final decision.

The winner will be announced at the official website after the conference.

You can refer to the following Criteria:

Items	Assessment
Content	Right, Logical, Original, Well-Structured
Language	Standard, Clear, Fluent, Natural
Performance	Spirited Appearance, Dress Appropriately, Behaves Naturally
PPT	Layout, Structure, Typeset, Animation, Multimedia
Reaction	Build a Good Atmosphere, Speech Time Control Properly

Please write down paper ID and give reasons for your recommendation for two candidates:

Paper ID	Reasons

I	Evaluate	ed by	:	(Pape	r ID:)											
Note:	When	the	session	finished,	please	fill	it	out	and	give	it to	the	Session	Chair	so	that	the	Best	Oral
Presei	ntations	s in t	his sessi	on can be	selected	l.													

November 15, 2025 (Saturday) 14:00-17:25 Afternoon Session

Location:	Conference Room C802 (8F)
Session Chair:	Dr. Konstantin Ryabinin, Heidelberg University, Germany
14:00-14:20	Invited Speech 1: Challenges of Quantum Computing Application for Accelerated Business Innovation Prof. Dimiter Veley, University of National and World Economy, Bulgaria
14:20-14:40	Invited Speech 2: Visual Mining of Astrometric Solution: Let Numerics Meet Art in Astrometric Data Analysis Dr. Konstantin Ryabinin
Oral Session o	on Interdisciplinary Field of Fuzzy Logic and Data Mining
14:40-14:55	FSDM4721: New Results on Neural Networks Training to Predict Osteoporotic Fractures Prof. Marcin Studniarski, University of Lodz, Poland
14:55-15:10	FSDM4811: Locally Alignment Driven Multi Kernel SVM for Robust Prediction on Heterogeneous Biomedical Data Dr. Nuchanat Tiprachot, Suranaree University of Technology, Thailand
15:10-15:25	FSDM4783: Quantile-Masked Softmax Activation for Inception CNN-Based Histopathological Breast Cancer Subtype Classification Mr. Songkiat Lowmunkhong, Suranaree University of Technology, Thailand
15:25-15:45	Coffee Break
15:45-16:00	FSDM4784: Hybrid Swarm Intelligence Optimization of Three Machine Learning Classifiers for Chronic Kidney Disease Detection Mr. Narongdech Dungkratoke, Suranaree University of Technology, Thailand
16:00-16:15	FSDM4787: Improving Pill Detection in YOLOv8 Using Learnable Multi-Scale Feature Fusion Mr. Anan Panphuech, Suranaree University of Technology, Thailand
16:15-16:30	FSDM4818: EGA-YOLOv8n: An Improved YOLOv8 Approach for Drone-Based Wall Crack Detection Ms. He Wang, Heilongjiang University, China
16:30-16:45	FSDM4752: Cryptanalysis of Row-Column-Based Permutation Image Encryption Schemes with Known-Plaintext Attacks Mr. Chengrui Zhang, Northeastern University, China
16:45-17:00	FSDM4747: Empirical Study on the Effectiveness of AI Empowered Formative Assessment in University Course Ms. Tong Xiao, National University of Defense Technology, China
17:00-17:15	FSDM4766: Construction of Service Quality Evaluation System for Homestay in Hunan Province Based on Text Analysis Dr. Yidan Zhu, Hunan Women's University, China
17:15-17:25	Presenting Oral Presentation Certificates

November 16, 2025 (Sunday) 09:00-12:25 Morning Session

Location:	Conference Room C802 (8F)
Session Chair:	Assoc. Prof. Sayan Kaennakham, Suranaree University of Technology, Thailand
09:00-09:20	Invited Speech 3: Multi-Granularity Group Consensus Modeling and Applications in the Context of Digital Intelligence Prof. Chao Zhang, Shanxi University, China
09:20-09:40	Invited Speech 4: A Machine Learning Surrogate Meshfree Approach for Thermal Analysis with Moving Heat Sources Prof. Felix Raymundo Saucedo Zendejo, Autonomous University of Coahuila, Mexico
Special Session (AMIAMI), 2nd	on "Applied Mathematics and Intelligent Algorithms for Modern Industry l Edition"
09:40-09:55	FSDM4809: Improvements in Spatial Strata Property Prediction and Analytic Hierarchy Process Prof. Wei Wang, Xi'an Shiyou University, China
09:55-10:10	FSDM4806: Generalized Multiquadric Based Direct Global Differential Quadrature Method for Accurate and Stable Solution of Elliptic Problems Asst. Prof. Pornthip Pongchalee, Rajamangala University of Technology Isan, Thailand
10:10-10:25	FSDM4750: Investigating Hybrid Multiquadric–Gaussian Kernels in SVM for Depression Detection: A Preliminary Study Mr. Natthapon Khetkrathok, Suranaree University of Technology, Thailand
10:25-10:45	
10:23-10:43	Coffee Break
10:25-10:45	Coffee Break FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series Mr. Suraphol Pudhom, Suranaree University of Technology, Thailand
	FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series
10:45-11:00	FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series Mr. Suraphol Pudhom, Suranaree University of Technology, Thailand FSDM4812: Tunable Softplus-Type Activations for Enhanced Gating in LSTM Networks Mr. Natchanon Jaruteekampron, Suranaree University of Technology, Thailand FSDM4775: Novel Adaptive Velocity Clamping Methods in Particle Swarm Optimization with Benchmark Validation
10:45-11:00	FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series Mr. Suraphol Pudhom, Suranaree University of Technology, Thailand FSDM4812: Tunable Softplus-Type Activations for Enhanced Gating in LSTM Networks Mr. Natchanon Jaruteekampron, Suranaree University of Technology, Thailand FSDM4775: Novel Adaptive Velocity Clamping Methods in Particle Swarm Optimization
10:45-11:00 11:00-11:15 11:15-11:30	FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series Mr. Suraphol Pudhom, Suranaree University of Technology, Thailand FSDM4812: Tunable Softplus-Type Activations for Enhanced Gating in LSTM Networks Mr. Natchanon Jaruteekampron, Suranaree University of Technology, Thailand FSDM4775: Novel Adaptive Velocity Clamping Methods in Particle Swarm Optimization with Benchmark Validation Ms. Janejira Laomala, Suranaree University of Technology, Thailand FSDM4780: Adaptive Variance Pooling CNN for Noise-robust Ultrasound Breast Cancer Classification
10:45-11:00 11:00-11:15 11:15-11:30 11:30-11:45	FSDM4785: Empirical Investigation into New Activation Functions within LSTM Networks for Time-Series Mr. Suraphol Pudhom, Suranaree University of Technology, Thailand FSDM4812: Tunable Softplus-Type Activations for Enhanced Gating in LSTM Networks Mr. Natchanon Jaruteekampron, Suranaree University of Technology, Thailand FSDM4775: Novel Adaptive Velocity Clamping Methods in Particle Swarm Optimization with Benchmark Validation Ms. Janejira Laomala, Suranaree University of Technology, Thailand FSDM4780: Adaptive Variance Pooling CNN for Noise-robust Ultrasound Breast Cancer Classification Mr. Ratapong Onjun, Suranaree University of Technology, Thailand FSDM4810: Population Density Repulsion PSO Optimized XGBoost for Robust Forecasting of Multiseasonal, Intermittent and Nonstationary Time Series

November 16, 2025 (Sunday) 14:00-17:40 Afternoon Session

Location:	cation: Conference Room C802 (8F)					
Session Chair:	Prof. Wei Huang, Hanshan Normal University, China					
14:00-14:20	Invited Speech 5: Feature Selection Approach Based on Improved Fuzzy C-Means with Principle of Refined Justifiable Granularity Assoc. Prof. Wentao Li, Southwest University, China					
	on "Artificial Intelligence and Big Data in Education (AIBigEdu)" & Oral Session on ry, Algorithm and System					
14:20-14:35	FSDM4719: Opportunities and Ethical Issues of the Application of Generative Artificial Intelligence in STEM+C Education Prof. Plamena Zlateva, University of National and World Economy, Bulgaria					
14:35-14:50	FSDM4827: A New Dictionary Based on Local Mean for SAR Prof. Xiaoxia Tian, Hanshan Normal University, China					
14:50-15:05	FSDM4829: An AI Agent and Low-Code Platform Based Framework for Automated Meeting Scheduling Mr. Can Lin, Hanshan Normal University, China					
15:05-15:20	FSDM4830: A Multi-Agent AI Framework for Mapping School Locations: A Case Study in Chaozhou, China Ms. Wanyi Li, Hanshan Normal University, China					
15:20-15:40	Coffee Break					
15:40-15:55	FSDM4831: Big Data Analysis of English Vocabulary at Different Educational Stages Mr. Junying Pan, Hanshan Normal University, China					
15:55-16:10	FSDM4832: Data-Driven Insights for Teaching Intervention: Profiling Student Types through Clustering in a University Public Course Ms. Si Shen, Hanshan Normal University, China					
16:10-16:25	FSDM4842: A Big Data Analysis of Staged Learning in Chinese Textbook Compilation Mr. Wenxuan Lin, Hanshan Normal University, China					
16:25-16:40	FSDM4776: Entropy-Guided Dissimilarity Measures for Enhancing Fuzzy C-Means Clustering Robustness Mr. Papon Tantiwanichanon, Suranaree University of Technology, Thailand					
16:40-16:55	FSDM4782: Preliminary Experiments on Adaptive RBF-Enhanced Fuzzy C-Means for Nonlinear Data Clustering Asst. Prof. Chantana Simtrakankul, Suranaree University of Technology, Thailand					
16:55-17:10	FSDM4855: Network Optimization Using Dijkstra's Algorithm with Trapezoidal Picture Fuzzy Numbers Dr. Tina Verma, Thapar Institute of Engineering and Technology, India					
17:10-17:20	Presenting Oral Presentation Certificates					
17:20-17:40	Awarding and Closing Ceremony					

Part VI Best Student Paper Awards

Best Student Paper Awards

Aim of the Award

Since its foundation in 2015, FSDM conference has developed rapidly along with an annual increase in submissions and continuous improvement of manuscript quality. FSDM 2025 is proud to announce the "Best Student Paper Award" to encourage and recognize outstanding research contributions by students in the field of Fuzzy Systems and Data Mining, attracting more scholars to deliver the latest research findings and encourage more presentations and exchanges at the conference.

Eligibility Requirements

- 1. Candidate must be currently enrolled as a full-time student (excluding postdoctoral researchers)
- 2. Candidate must be the first author and primary presenter
- 3. Paper must represent original, unpublished research
- 4. Candidate must register and present at FSDM 2025

Selection Procedure

The selection of winners will undergo a 3-step process.

- 1. Peer review by Technical Program Committee (TPC)
- 2. Based on peer review comments, Organizing Committee selects the top 15 papers with Straight-A in novelty, structure, significance and language etc.
- 3. Award Committee selects the best 5 papers from the top 15.

Part VII Awards



FSDM 2025 Best Oral Presentation Awards

During the conference, one Best Oral Presentation in **EACH** session will be selected based on the ranking of votes. **Three Best Oral Presentations** will be selected from three oral sessions.



Best Poster Presentation Awards

Best Poster Presentation Awards will be selected during the conference, with a selection ratio of 1:10. The Conference Chair will invite judges free of conflicts of interest with presenters to conduct the evaluation. For a total of twenty poster presentations, **Two Best Poster Presentations** will be chosen.



Best Student Paper Awards

The winners of five Best Student Papers will be announced and awarded.

The Nature of the Awards

- The three kinds of awards mentioned above will all be announced at the closing ceremony during 17:20-17:40 on November 16, 2025, and results announced on FSDM 2026 website.
- ➤ Each winner of the three kinds of awards will be awarded free registration to FSDM 2026 and a certificate.

Part VIII Conference Venue

Venue: C802 (8F), Information Technology Building, Hanshan Normal University

Address: Qiaodong Street, Xiangqiao District, Chaozhou City, Guangdong Province, China

Postal Code: 521041









ACCESS to Hanshan Normal University (HSNU)

- **1. By train**: Get off at Chaozhou Station, from Chaozhou Station to Hanshan Normal University (HNU), you can take No. 13, No. 1 bus to get off at the gate of HNU.
- **2. By plane**: Take the airport bus from Jieyang Chaoshan Airport to Chaozhou Hotel, then transfer to bus No. 1 or No. 8 and get off at the gate of HNU.
- **3. By High-Speed Rail**: After arriving at Chaoshan High-Speed Rail station, you can take the shuttle bus (to Tiepu or Guantang direction) to get off at the gate of HNU. The shuttle bus ride takes about one hour from Chaoshan High-Speed Rail station to HNU. The shuttle bus leaves every half an hour.

Part IX Field Investigation

Time: 8:30-16:30, November 17, 2025 (Monday)

Gathering Location: South Gate of Hanshan Normal University

Notes: Gather at South Gate of Hanshan Normal University at 08:20 and depart at 08:30.

Please arrive at the gathering location 10 minutes in advance. When boarding the tour bus, present your Field Investigation Ticket. All attendees must bring their valid identification: international attendees a passport, and Chinese attendees a Chinese ID card.

Schedule

Depart at 8:30 →FAMORY Chaozhou Embroidery Art Museum→ Masters Park→ Lunch→ Qinglong Ancient Temple→ Guangji Bridge→ Guangji Gate Tower→ Paifang Street→ Kaiyuan Temple →Return at about 16:30

Note: This is a tentative itinerary. Minor adjustments may be made based on the guide's on-site arrangements.

The FAMORY Chaozhou Embroidery Art Museum, a gem located in Chaozhou, is committed to protecting and inheriting Chaozhou embroidery, a national intangible cultural heritage. Chaozhou embroidery, together with Guangzhou embroidery (Guangxiu), is known as Yue embroidery and is one of the four famous embroideries in China. Originating from the Chaoshan region, it is renowned for its unique local color and rich artistic expression.





Masters Park is located in Xiangqiao District, Chaozhou City, Guangdong Province. It is a comprehensive



creative park centered around traditional Chaozhou arts and crafts and intangible cultural heritage. The pavilion was founded in 2016, with a building area including five floors of functional exhibition areas. It brings together more than 300 national and provincial-level arts and crafts masters and inheritors of intangible cultural heritage and displays over 3,000 fine arts and crafts works in categories such as ceramics, woodcarving, and bead embroidery.

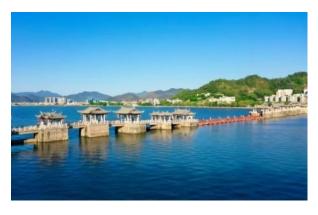
The Qinglong Ancient Temple also known as the Anji King Temple, is called "Dalaoye Palace" by the people in Chaozhou. It is a scenic spot on Nandi Road, Xiangqiao District, Chaozhou City. It was built in the Northern Song Dynasty, and its opening hours are from 8:00 to 20:00 throughout the year.











Guangji Bridge, also known as Chaozhou Guangji Bridge, was anciently called Kangji Bridge, Dinghou Bridge, and Jichuan Bridge. Commonly known as Xiangzi Bridge, it is also called Chaozhou Xiangzi Bridge. It is one of the four ancient and famous bridges in China. It was praised by the bridge expert Mao Yisheng as "the world's earliest movable bridge". Guangji Bridge is located outside the east gate of the ancient city of Chaozhou, Guangdong Province. It spans the Hanjiang River, connecting the east and west banks. It integrates

beam bridges, floating bridges, and arch bridges. It was an important transportation hub from ancient Guangdong to Fujian and Zhejiang. It is one of the eight scenic spots in Chaozhou, a historical landmark of Chaozhou culture, a national key cultural relic protection unit, and a national AAAA - level scenic area.

The **Guangji Gate Tower**, commonly known as the East Gate Tower, is located on Dongmen Street, Xiangqiao District, Chaozhou City, Guangdong Province, China. It faces the Guangji Bridge directly. It is the first among the seven city gate towers of the ancient city of Chaozhou. The first and second floors are now the Guangji Bridge History Exhibition Hall.







Paifang Street is a cultural ancient street located in the center of Chaozhou Ancient City, integrating intangible cultural heritage, traditional crafts, special snacks, etc. The characteristic architecture of Paifang Street is the arcade buildings that combine Chinese and Western styles. The 22 Chinese Ming and Qing stone memorial archways standing upright and the arcade buildings with "Nanyang" flavor on both sides set off each other.

The Kaiyuan Temple in Chaozhou was originally called "Lifeng Temple". In the 26th year of the Kaiyuan









reign of the Tang Dynasty (738 AD), an imperial edict was issued to select ten major prefectures across the country to build large temples, all named "Kaiyuan", and the Kaiyuan Temple in Chaozhou was one of them. At that time, in accordance with the imperial edict, ten major prefectures were selected across the country to build large temples, all named "Kaiyuan". In the Yuan Dynasty, it was renamed "Kaiyuan Wanshou Chan Temple", and in the Ming Dynasty, it was called "Kaiyuan Zhenguo Chan Temple" with an additional plaque of "Wanshou Palace", commonly known as "Kaiyuan Temple".

Part X Acknowledgements

On behalf of the FSDM2025 Organizing Committee, we would like to take this opportunity to express our sincere gratitude to our participants. Without their support and contributions, we would not be able to hold the conference successfully. We would also like to express our acknowledgements to the Technical Program Committee (TPC) members who have given their professional guidance and valuable advice as reviewers. Special thanks go to Local Committee from Hanshan Normal University, China, especially the colleagues from School of Computer & Information Engineering and School of Mathematics and Statistics.

Below are the lists of the Organizing Committee and TPC members. For those who contribute to the success of the conference organization without listing the names here, we would love to say thanks as well.

FSDM 2025 Organizing Committee

Conference Chair

Prof. Gengzhong Zheng, Vice-President, Hanshan Normal University, China

Local Committee

Prof. Gang Xiao, Hanshan Normal University, China

Prof. Xiaopeng Yang, Hanshan Normal University, China

Prof. Jingzhen Yuan, Hanshan Normal University, China

Prof. Xiaoqing Dong, Hanshan Normal University, China

Prof. Wei Huang, Hanshan Normal University, China

Prof. Lvjun Li, Hanshan Normal University, China

Dr. Zhongxing Peng, Hanshan Normal University, China

TPC Members

A

Dr. Gianni D'Angelo, Tenured Adjunct Professor (RTD.B), Department of Computer Sciences, University of Salerno, Italy

Dr. Ahmad Taher Azar, Professor, College of Computer and Information Sciences (CCIS), Prince Sultan University, Riyadh, Saudi Arabia

B

Dr. Valentina E. Balas, Professor, Department of Automatics and Applied Software, Faculty of Engineering, "Aurel Vlaicu" University of Arad, Romania

Dr. Antonio J. Tallón-Ballesteros, Professor, Department of Electronic, Computer Systems and Automation Engineering, University of Huelva, Spain

Dr. Ramiro Barbosa, Coordinator Professor, Department of Electrical Engineering, the Institute of Engineering of the Polytechnic Institute of Porto, Portugal

Dr. Sofiane Bououden, Professor, Department of Industrial Engineering, University Abbes Laghrour Khenchela, Algeria

C

Dr. Mohammed Chadli, Professor, University of Paris-Saclay, IBISC Lab., France

Dr. Cheng Siong Chin, Professor, Chair of Intelligent Systems Modelling and Simulation, Newcastle University, Singapore; Adjunct Full Professor, School of Automotive Engineering, Chongqing University, China

Dr. Mario G.C.A. Cimino, Associate Professor, Department of Information Engineering, University of Pisa, Italy

Dr. Stefano Cirillo, Department of Computer Science, University of Salerno, Italy

Dr. Cerasela Crisan, Associate Professor, Vasile Alecsandri University of Bacău, Romania

E

Dr. Dário Ferreira, Assistant Professor, Department of Mathematics and Center of Mathematics and Applications, University of Beira Interior, Portugal

Dr. Feng Feng, Professor, Xi'an University of Posts and Telecommunications, China

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Dr. Arkadiusz Gola, Professor, Department of Production Computerisation and Robotisation, Lublin University of Technology, Poland

Dr. Samuel Morillas Gómez, Professor, Department of Applied Mathematics, Universitat Politecnica de Valencia, Spain

Dr. Xiaobin Guo, Associate Professor, Northwest Normal University, China

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Dr. Shexiang Hai, Associate Professor, Lanzhou University of Technology, China

Dr. Jesús García Herrero, Professor, Department of Computer Science, Universidad Carlos III de Madrid, Spain

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Dr. Galina Ilieva, Professor, Department of Management and Quantitative Methods in Economics, University of Plovdiv Paisii Hilendarski, Bulgaria

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Dr. Abbas Khosravi, Associate Professor, Institute for Intelligent Systems Research and Innovation, Deakin University, Australia

Dr. Savas Konur, Professor of AI & Computational Modelling, School of Computer Science, AI & Electronics, University of Bradford, UK

Dr. Sotiris Kotsiantis, Assistant Professor, University of Patras, Greece

Dr. Robert Kudelić, Faculty of Organization and Informatics, University of Zagreb, Croatia

Dr. Kaya Kuru, Professor, School of Engineering and Computing, University of Central Lancashire, UK

L

Dr. Chien-Sing Lee, Professor, School of Science and Technology, Sunway University, Malaysia

Dr. Jinfeng Li, Assistant Professor, Beijing Institute of Technology, China

Dr. Jinhai Li, Professor, Kunming University of Science and Technology, China

Dr. Shenggang Li, Professor, Shaanxi Normal University, China

Dr. Wentao Li, Associate Professor, College of Artificial Intelligence, Southwest University, Chongqing, China

Dr. Yonghong Li, Professor, Chongqing University of Posts and Telecommunications, China

Dr. Huchang Liao, Professor, Sichuan University, China

Dr. Sangsoon Lim, Assistant Professor, Department of Computer Engineering, Sungkyul University, South Korea

Dr. Hao Long, Professor, Jiangxi Normal University, China

Dr. Jose Manuel Molina Lopez, Professor, Department of Computer Science, Universidad Carlos III de Madrid, Spain

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Dr. Hugo Wai Leung Mak, Department of Mathematics, The Chinese University of Hong Kong & The Hong Kong University of Science and Technology, Hong Kong, China

Dr. Héctor Migallón, Associate Professor, Department of Computer Engineering, Miguel Hernández University, Spain

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Dr. Vilem Novak, Professor, University of Ostrava, Institute for Research and Applications of Fuzzy Modeling, Ostrava, Czech Republic

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Dr. Giuseppe Orlando, Professor, Department of Mathematics, University of Bari, Italy

P

Dr. Dragan Pamucar, Professor, Faculty of Organizational Sciences, University of Belgrade, Belgrade, Serbia

Dr. Jan Rauch, Professor, Faculty of Informatics and Statistics, The Prague University of Economics and Business, Czech Republic

Dr. Amjad Rehman, AIDA LAB CCIS, Prince Sultan University, Saudi Arabia

Dr. Konstantin Ryabinin, Research Worker, Heidelberg University, Germany

S

Dr. Timothy Sands, astronautics professor, Cornell University, USA

Dr. Yabin Shao, Professor, Chongqing University of Posts and Telecommunications, China

Dr. Yanhong She, Professor, Xi'an Shiyou University, China

Dr. Iickho Song, Professor, Department of Electrical Engineering, Korea Advanced Institute of Science and Technology, South Korea

Dr. Ferda Özdemir Sönmez, Department of Computing, Imperial College of London, UK

Dr. Gautam Srivastava, Professor, Department of Computer Science, Brandon University, Manitoba, Canada

Dr. H. M. Srivastava, Professor, Department of Mathematics and Statistics, University of Victoria, Canada

Dr. Razia Sulthana, Senior Lecturer, School of Computing & Mathematical Sciences (CMS), Faculty of Engineering and Science (FES), University of Greenwich, Old Royal Naval College, UK

T

Dr. Stefania Tomasiello, Associate Professor, Department of Industrial Engineering, University of Salerno, Italy; Visiting Professor, Institute of Computer Science, University of Tartu, Estonia

Dr. Oleksii Tyshchenko, Researcher, Institute for Research and Applications of Fuzzy Modeling, University of Ostrava, Czech Republic

 \mathbf{W}

Dr. Xinxing Wu, Assistant Professor, Midway University, Kentucky, United States

X

Dr. Shuyin Xia, Professor, Chongqing University of Posts and Telecommunications, China

Dr. Fuyuan Xiao, Professor, School of Big Data and Software Engineering, Chongqing University, China

Dr. Jialiang Xie, Professor, Jimei University, China

Dr. Shuguang Xiong, Principal Applied Scientist, Microsoft Software Technology Center Asia (STCA), China

 \mathbf{Y}

Dr. Hong Yang, Associate Professor, Northwest Normal University, China

Dr. Linda Yang, Senior Lecturer, School of Computing, University of Portsmouth, UK

Dr. Hong Yu, Professor, Chongqing University of Posts and Telecommunications, China

Dr. Hongchuan Yu, National Centre for Computer Animation, Bournemouth University, UK

Dr. Yingwei Yu, Senior Applied Scientist, Amazon Web Services (AWS), USA

7

Dr. Chao Zhang, Professor, Shanxi University, China

Dr. Hongying Zhang, Professor, Xi'an Jiaotong University, China

Dr. Yichuan Zhao, Professor, Department of Mathematics & Statistics, Georgia State University, USA

Dr. Hongjun Zhou, Professor, Shaanxi Normal University, China

Part XI Invitation Letter to FSDM 2026

As FSDM 2025 draws to a close, we are excited to announce that the 12th International Conference on Fuzzy Systems and Data Mining (FSDM 2026) will be held at City University of Macau (CITYU), Macao, China from November 20 to 23, 2026. Continuing its legacy as a premier academic platform, it will gather global experts to share cutting-edge findings in fuzzy systems, data mining, and their interdisciplinary frontiers. Save the date! We look forward to welcoming you to Macao for inspiring exchanges and collaborations. For updates, stay tuned to our official channels.



Conference Name: The 12th International Conference on Fuzzy Systems and

Data Mining (FSDM 2026) **Date:** November 20-23, 2026 **Venue:** City University of Macau

Estimated no. of participants: 110 people

Estimated percentage of participants from countries outside the mainland

of China region: 40%

Brief Program:

Friday, November 20, 2026

Registration

Saturday, November 21, 2026

Opening Ceremony, Keynote & Invited Speeches, Poster & Oral Presentations, Welcome Banquet at Macau Tower

Sunday, November 22, 2026

Invited Speeches, Oral Presentations and Closing Ceremony

Monday, November 23, 2026

Field Investigation



The 12th International Conference on Fuzzy Systems and Data Mining (FSDM 2026), in CITYU, Macao