

## CONFERENCE PROGRAM

**Date: Friday Afternoon, September 19, 2025**

**Location: Homeland Hotel, Chengdu, China**

Time	Activity
14:30-17:30	Conference Registration Venue: Lobby, 1st Floor, Homeland Hotel, Chengdu, China

### Plenary Session

**Date: Saturday, September 20, 2025**

**Location: Homeland Hotel, Chengdu, China**

**Meeting Room: International Conference Hall, 2nd Floor**

**ZOOM Account: 875 5561 8696 Password: 225920**

Time	Activity	
08:30-09:00	Conference Registration Venue: Lobby, 1st Floor, Homeland Hotel, Chengdu, China	
09:00-09:05	Opening Ceremony	Chair: Prof. Gexiang Zhang
09:05-09:10	Speech from CUIT	By: University Leader of Chengdu University of Information Technology (CUIT)
	Speeches from IMCS	By: Acad. Gheorghe Paun & Prof. Marian Gheorghe
09:10-09:15	Group Photo	Chair: Prof. Gexiang Zhang

**Note: Time zone refers to Beijing standard time (UTC/GMT+8))**

## CONFERENCE PROGRAM

Morning Session: Plenary Lecture		
Time	Activity	
09:15-09:45	Plenary Talk 1: Prof. Giancarlo Fortino, University of Calabria, Italy Title: From Digital Twins to Generative Digital Twins: Towards a Novel Approach in the IoT Edge-Cloud Continuum	Chair: Prof. Min Chen
09:45-10:15	Plenary Talk 2: Prof. Mohsen Guizani, Mohamed Bin Zayed University of Artificial Intelligence, UAE Title: Large Language Models for Wireless Systems Security	
10:15-10:35	Coffee Break & Poster Session (with Judging)	
10:35-11:05	Plenary Talk 3: Prof. Min Chen, South China University of Technology, China Title: Large Language Model (LLM) Fine Tuning: Concepts, Opportunities, and Challenges	Chair: Prof. Giancarlo Fortino
11:05-11:35	Plenary Talk 4: Prof. Henry N. Adorna, University of the Philippines Diliman, Philippines Title: Computations on Spiking Neural P Systems with Matrices	
11:35-12:05	Plenary Talk 5: Prof. Savas Konur, University of Bradford, UK Title: IBW Workbench Web Tool: Modelling and Computational Analysis of Synthetic Biology Systems Using P Systems	
12:05-14:00	Lunch Break Venue: Gujiacun Restaurant, 1st Floor	

## CONFERENCE PROGRAM

Afternoon Session: Plenary Lecture		
Time	Activity	
14:00-14:30	Plenary Talk 6: Prof. Jie Xue, Shandong Normal University, China Title: From Digital Twins to Generative Digital Twins: Advances of P systems based Medical Image Analysis	Chair: Prof. Henry N. Adorna
14:30-15:00	Plenary Talk 7: Prof. György Vaszil, University of Debrecen, Hungary Title: Manipulating rules as data in membrane computing: Recent results on polymorphic P systems	
15:00-15:30	Plenary Talk 8: Assoc. Prof. José M. Sempere, Universidad Politecnica de Valencia, Spain Title: Computing by plasmids	
15:30-15:50	Coffee Break & Poster Session (with Judging)	
15:50-16:20 (Local Time: 09:50-10:20)	Plenary Talk 9 (Online): Prof. Mario de Jesús Pérez-Jiménez, Universidad de Sevilla, Spain Title: When nature meets: DNA and membranes working together	Chair: Prof. Savas Konur
16:20-16:50 (Local Time: 10:20-10:50)	Plenary Talk 10 (Online): Assoc. Prof. Claudio Zandron, University of Milano-Bicocca, Italy Title: Recent Advancements and Future Research Challenges in Spiking Neural P Systems	
ICMC 2025 Oral Presentation		
16:50-17:05	Speaker 1: Antonio Ramírez de Arellano Marrero, Research Institute for Artificial Intelligence “Mihai Draganescu”, Romania Title: Echo virus machines for time series prediction	Chair: Prof. Savas Konur
17:05-17:10	Awards Ceremony	
17:30-19:00	Social Banquet Venue: Western-style Buffet Restaurant, 1st Floor	

## CONFERENCE PROGRAM

### Parallel Session 1: ICMC 2025 Oral Presentation

**Date:** Sunday, September 21, 2025

**Location:** Homeland Hotel, Chengdu, China

**Meeting Room:** International Conference Hall A, 2nd Floor

**ZOOM Account:** 864 3578 8870    **Password:** 225921

Time	Activity	
09:00-09:05	Opening Ceremony	Chair: Prof. Tingfang Wu
09:05-09:20	Speaker 1: Ruijia Qiu, Chengdu University of Information Technology, China Title: An Optimized Adaptive Spiking Neural P Systems for Aero-engine Fault Diagnosis	
09:20-09:35	Speaker 2: Yangheng Hu, Sichuan University, China Title: Neuro-Inspired and Memory-Enhanced Optimization Spiking Neural P Systems for approximately solving combinatorial optimization problems	
09:35-09:50	Speaker 3: Luping Zhang, East China University of Technology, China Title: Development of Adaptive Fuzzy Membrane Controller for Wall following Robots	
09:50-10:05	Speaker 4: Ao Gu, Chengdu University of Information Technology, China Title: Automatic Logic Operation Design in Spiking Neural P Systems via Genetic Algorithms	
10:05-10:20	Speaker 5: Guoliang Li, Urban Vocational College of Sichuan, China Title: A Fully Automated Evolutionary Design Method for Four Elements of Spiking Neural P Systems	Chair: Prof. José M. Sempere
10:20-10:40	Coffee Break & Poster Session	
10:40-10:55	Speaker 6 (Online): Nestine Hope S. Hernandez, University of the Philippines, Philippines Title: Mapping Workflow Nets to Parallel Virus Machines	

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Parallel Session 1: ICMC 2025 Oral Presentation		
Time	Activity	
10:55-11:10	Speaker 7 (Online): <a href="#">Kelvin C. Buño, University of the Philippines, Philippines</a> Title: Simulating P Systems with Complex Objects for Image Skeletonization	Chair: Prof. José M. Sempere
11:10-11:25	Speaker 8 (Online): <a href="#">Jincy Sebastian, Amal Jyothi College of Engineering, India</a> Title: Generation of Chain Code Picture Languages using Labelled SN P Systems with Mute Rules	
11:25-11:40	Speaker 9 (Online): <a href="#">Francis George Cabarle, University of the Philippines, Philippines</a> Title: Interaction and persistence in spiking neural P systems	
11:40-11:55	Speaker 10 (Online): <a href="#">Deepalakshmi D, Amal Jyothi College of Engineering, India</a> Title: P Systems Generating Octagonal Picture Languages	
12:00-14:00	Lunch Break Venue: Wales Private Room, 2nd Floor	
14:00-14:15	Speaker 11 (Online): <a href="#">Jitty Elezabeth Mathew, Amal Jyothi College of Engineering, India</a> Title: Graph sequences generated by reaction systems	Chair: Prof. György Vaszil
14:15-14:30	Speaker 12 (Online): <a href="#">Stefan Iacob, University of Bucharest, Romania</a> Title: Some New Developments in kP-Lingua	
14:30-14:45	Speaker 13 (Online): <a href="#">Radu Traian Bobe, University of Bucharest, Bucharest</a> Title: A Model Learning based Testing Strategy for Numerical P Systems	
14:45-15:00	Speaker 14 (Online): <a href="#">Artiom Alhazov (State University of Moldova, Moldova) and Rudolf Freund (TU Wien, Austria)</a> Title: Wireless Spiking Neural P Systems Without Input Filters	



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Parallel Session 1: ICMC 2025 Oral Presentation		
Time	Activity	
15:00-15:15	Speaker 15 (Online): Sergey Verlan (Univ. Paris Est Creteil, France), Artiom Alhazov (State University of Moldova, Moldova), Rudolf Freund (TU Wien, Austria) Title: P Systems Working on Several Objects with Rules and Polarizations on Membranes	Chair: Prof. György Vaszil
15:15-15:30	Speaker 16 (Online): T Kalyani, St. Joseph’s Institute of Technology, India Title: Parallel Contextual Array Insertion Deletion P Systems and Pure 2D Eilenberg P Systems	
15:30-15:45	Speaker 17 (Online): Giovanni Michele Pinna, Universit`a di Cagliari, Italy Title: A Petri Nets view of Synchronized P Systems	
15:45-16:00	Speaker 18: Lucie Ciencialová, Silesian University in Opava, Czech Republic Title: About Modified P Colonies with Rule Application Intensity	
16:00-16:20	Coffee Break & Poster Session	
16:20-16:35	Speaker 19: Sandro Erba, University of Milano Bicocca, Italy Title: TEAM - Transmission of Epidemic Among Membranes	Chair: Prof. Jie Xue
16:35-16:50	Speaker 20: JoséM. Sempere, Universitat Politècnica de València, Spain Title: Computing partial functions by plasmids	
16:50-17:05	Speaker 21: Tingfang Wu, Soochow University, China Title: Spiking neural P systems with inhibitory synaptic transmission	

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Parallel Session 1: ICMC 2025 Oral Presentation		
Time	Activity	
17:05-17:20	Speaker 22: Hongsen Zhang, Chongqing Metropolitan College of Science and Technology, China Title: Dual-channel and Dual-spiking Neural P systems for Logical Expression Calculation	Chair: Prof. Jie Xue
17:20-17:35	Speaker 23: Qiwei Wang, Xihua University, China Title: Short-term Electricity Load Forecasting Method based on ICEEMDAN Decomposition and Long Short-term Memory Spiking Neural P Systems	
17:35-17:50	Speaker 24: Xiaona Ren, Chengdu University of Information Technology, China Title: Improved Adaptive Fuzzy Reasoning Numerical Spiking Neural P System for Classification Problems	
17:50-18:05	Speaker 25: Penghui Li, Chengdu University of Information Technology, China Title: Enhanced YOLOv11 Architecture with Spiking Neuron-Inspired Feature Extraction and Multi-Scale Fusion for Defect Detection of Wind Turbine Blades	
18:05-18:10	Closing ceremony	

## CONFERENCE PROGRAM

### Parallel Session 2: AIIM 2025 Oral Presentation

**Date:** Sunday Morning, September 21, 2025

**Location:** Homeland Hotel, Chengdu, China

**Meeting Room:** Medium-sized Meeting Room, 2nd Floor

**ZOOM Account:** 884 7825 2738    **Password:** 225922

Time	Activity	
09:00-09:05	Opening Ceremony	Chair: Prof. Jianying Yuan
09:05-09:15	Speaker 1: Boquan Gao, Nankai University, China Title: A knowledge transfer-based membrane evolutionary algorithm for solving large-scale sorted waste collection problem with timeliness	
09:15-09:25	Speaker 2: Yanwei Zhang, Shanghai Huaxun Network System Co., LTD Title: A Self-supervised Enhancement Method on Large Foundation Vision Model for Power System Detection	
09:25-09:35	Speaker 3: Long Wen, Chengdu University of Information Technology, China Title: Dueling DQN with PER Path Planning Algorithm for Unmanned Surface Vehicles	
09:35-09:45	Speaker 4: Shirong Guo, Xihua University, China Title: An Improved DFS-Based Path Planning Method for UAV Mapping Tasks	
09:45-09:55	Speaker 5: Beiping An, Shandong University of Science and Technology, China Title: Path Planning for Coal Mine Robots Based on an Improved Artificial Potential Field Method	
09:55-10:05	Speaker 6: Fumao Liu, Chengdu University of Information Technology, China Title: Accuracy Improvement of eLoran Propagation Delay Based on Spatiotemporal Neural Network	
10:05-10:15	Speaker 7: Peize Li, Wuhan University of Technology, China Title: Research on S-shaped Curve Trajectory Tracking of Unmanned Vehicles Based on Active MPC	



## CONFERENCE PROGRAM

Parallel Session 2: AIIM 2025 Oral Presentation			
Time	Activity		
10:15-10:25	Speaker 8: Zhicheng Lin, Southwest Jiaotong University, China Title: Oral Presentation -Shape-Driven Dual-Branch Ensembles with Entropy-Adaptive Fusion for Domain Generalization	Chair: Prof. Jianying Yuan	
10:25-10:45	Coffee Break & Poster Session		
10:45-10:55	Speaker 9: Kailin Liu, Beijing University of Chemical Technology, China Title: YOLO-DW: An Improved Defect Detection Algorithm Based on YOLOv11	Chair: Prof. Long Fu	
10:55-11:05	Speaker 10: Jiaxuan Tu, Nanjing University of Aeronautics and Astronautics, China Title: A Novel Oriented Target Detection Method in UAV Aerial Photography Under Hazy Scenarios		
11:05-11:15	Speaker 11 (Online): Peng Liu, Northeast Electric Power University, China Title: Edge-Preserving Multi-Scale Network for Plant Point Cloud Segmentation		
11:15-11:25	Speaker 12 (Online): Ran Luo, Yunnan Normal University, China Title: Object Detection Method in Foggy Images with Dynamic Convolution Kernels and Cross-Dimensional Attention		
11:25-11:35	Awards Ceremony		
11:35-11:40	Closing Ceremony		
12:00-14:00	Lunch Break Venue: Wales Private Room, 2nd Floor		