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2026 IEEE 9th International Conference on

PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

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上海交通大学 Shanghai Jiao Tong University

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Shanghai, China

SPECIAL SESSION 08

Data-Driven Domain AI Systems: Models, Architectures, and Applications

Data-Driven Domain AI Systems emphasize building complete AI systems in which domain data guide system design, learning workflows, and decision-making processes throughout the entire system lifecycle. Rather than focusing on specific model paradigms such as generative or multimodal large models, this session highlights system-level methodologies that integrate domain-aware data modeling, task-oriented learning, deployment, and validation. The session targets real-world domain scenarios where AI systems must operate under strict constraints, limited or heterogeneous data, and strong requirements for reliability, robustness, and interpretability. By focusing on data-driven system design across multiple domains, this session complements application-oriented and model-centric sessions and provides a unified platform for system-level AI research with demonstrated practical impact.

Related Topics

Topics of interest include, but are not limited to:

- Data-driven methodologies for domain-specific AI systems
- Domain-aware data modeling, representation, and annotation
- Learning from limited, noisy, imbalanced, or heterogeneous domain data
- Synthetic data generation and data augmentation for domain applications
- Data quality, data governance, and lifecycle management in AI systems
- Domain-adaptive and task-specific learning models
- Knowledge-enhanced and constraint-aware learning using domain data
- Explainable and trustworthy AI for domain AI systems
- System-level design and integration of domain AI solutions
- Deployment, monitoring, and validation of domain AI systems
- Evaluation methodologies for data-driven AI systems in real-world domains
- Edge and embedded AI systems under domain data constraints

Publication

IEEE

Accepted papers will be published in PRAI 2026 Conference Proceedings,and submitted for inclusion into IEEE Xplore and indexed by EI Compendex & Scopus.

Submission Way

Submit Online:
https://www.easychair.org/conferences/?conf=prai2026
(Please choose Special Session 8)

Paper Templates:
Latex: https://www.prai.net/ieee-conference-latex-template.zip
Word: https://www.prai.net/instruct8.5x11x2.doc

For General inquire please contact: praiconf@outlook.com
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Important Date

Final Submission Deadline	July 05, 2026
Final Notification Date	July 20, 2026
Final Registration Deadline	July 25, 2026

* The review period for submissions is typically one month.

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