

ICDLT 2026

The 10th International Conference on
Deep Learning Technologies **Kunming, China**
July 17–19, 2026



<https://www.icdl.org/index.html>

Session Title: Autonomous Machine Intelligence – Theory and Applications (AMITA)

Autonomous Machine Intelligence represents a fundamental shift in artificial intelligence, moving beyond narrow task-specific systems toward machines capable of understanding, learning, and acting in complex real-world environments with minimal human supervision. This special session focuses on the theoretical foundations and practical applications of autonomous intelligent systems, with particular emphasis on three tightly interconnected paradigms: world models, energy-based models (EBMs), and joint embedding predictive architectures (JEPA).

Recent advances in autonomous AI architecture — particularly in perception-planning-action cycles, multimodal learning, and hierarchical predictive models — have opened new possibilities for building systems that can truly understand and interact with the physical world. EBMs provide a principled probabilistic framework for capturing dependencies through a learnable energy function, supporting contrastive and self-supervised learning. JEPA (I-JEPA, V-JEPA, V-JEPA 2) learns by predicting abstract representations in latent space, unifying EBM objectives with practical self-supervised learning. World models enable agents to simulate hypothetical scenarios and plan optimal actions via compressed latent representations of environment dynamics.

This session aims to provide a forum for researchers and practitioners to present and discuss the latest advances in autonomous machine intelligence, covering theoretical foundations, novel architectures, learning paradigms, and real-world applications. Relevant topics include, but are not limited to:

Session Chairs



Hiep Xuan Huynh, Can Tho University, Vietnam



Fabrice Guillet, Nantes Université, France



Anh Hoang Pham, VNU-HCM Univ. of Technology (HCMUT), Vietnam



Ngan Thi Tran, VNU – International School (VNUIS), Hanoi, Vietnam

Publication

All accepted papers of ICDLT 2026 will be published in the ACM International Conference Proceedings and submitted for indexing in Ei Compendex and Scopus.

Session Topic

Topics of interest include, but are not limited to:

- Self-supervised learning for autonomous systems
- Energy-based models and latent variable models
- Joint Embedding Predictive Architectures (JEPA): I-JEPA, V-JEPA, V-JEPA 2
- World models and predictive learning for planning and control
- Perception-planning-action architectures
- Hierarchical and multi-scale representations
- Multimodal learning and fusion
- Intrinsic motivation and cost functions
- Model-predictive control for autonomous systems
- Video understanding and prediction
- Autonomous robotics and embodied AI
- Industrial automation, smart manufacturing, healthcare, and aquaculture applications
- Benchmarks and evaluation metrics for autonomous intelligent systems

Important Date

Submission Deadline May 15, 2026

Notification of Acceptance June 10, 2026

Registration Deadline June 25, 2026

Conference Schedule

July 17 Registration, collection of conference materials

July 18 Opening ceremony, keynote speeches, parallel sessions

July 19 Oral and poster sessions



Submission

Full Paper Submission (Author Participation): Accepted papers will be published in the conference proceedings. Authors must present their work orally or via poster at the conference.

Abstract Submission (Presenter Participation): Presentation only (no publication).

Listener Participation: Attend all sessions and receive a listener certificate.

Submission System: <https://www.zmeeting.org/submission/icdl2025> (choose special session 1)

Submission Email: icdl@young.ac.cn

Templates: https://icdl.org/acm_template.docx <https://icdl.org/LaTeX-Templates.zip>

For detailed submission guidelines, visit: <https://icdl.org/sub.html>

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