

The 2nd International Workshop on Design X Manufacturing (DxM)

Agentic and Generative AI for Design and Manufacturing

The 2nd International Workshop on Design x Manufacturing (DxM) brings together researchers from around the globe to explore how agentic AI, generative models, and sensing technologies are reshaping engineering design and manufacturing. Key highlights include LLM-based multi-agent collaboration, agentic finite element analysis, generative parametric optimization, diffusion models, robotic additive manufacturing, closed-loop in-situ process monitoring, and DfMA. Through invited talks and interdisciplinary discussion, the workshop will bridge digital synthesis with physical realization, integrate physical constraints and domain knowledge into intelligent DxM systems, and define shared research frontiers for end-to-end, AI-driven design-to-manufacturing workflows.



Binyang Song

Assistant Professor, School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

Diffusion Models Beat Optimization in Manufacturability- and Performance-Aware Heat Exchanger Design



David Rosen

Senior Principal Scientist, Agency for Science, Technology and Research (A*STAR), Singapore

Generative Design for Additive Manufacturing



Shuo Jiang

Research Fellow, Department of Systems Engineering, City University of Hong Kong

Parametric Engineering Design and Optimization with Large Language Models



Tan Tan

Assistant Professor, Department of Real Estate and Construction, The University of Hong Kong

Challenges and Opportunities of DfMA in HK's Construction Industry



Tianju Xue

Assistant Professor, Department of Civil and Environmental Engineering, The Hong Kong University of Science and Technology

JAX-FEM Express: Agentic Finite Element Analysis and Design



Xiaohan Du

Assistant Professor, Department of Systems Engineering, City University of Hong Kong

Dynamic Laser Manufacturing with Adaptive Optical Elements



Xiayun Zhao

Associate Professor, Department of Mechanical Engineering and Materials Science, University of Pittsburgh, United States

Towards Intelligent Additive Manufacturing: In-situ Multimodal Sensing and Machine Learning



Zhoumingju Jiang

PhD Candidate, School of Automation and Intelligent Manufacturing, Southern University of Science and Technology, Shenzhen, China

LLM-Based Multi-Agent Collaboration for Functional Decomposition



Guoxin Fang

Assistant Professor, Department of Mechanical and Automation Engineering, Chinese University of Hong Kong

Neural-Based Design-to-Manufacturing Representation for Robotic Additive Manufacturing of Functional Devices



Yi Xiong

Associate Professor, School of Automation and Intelligent Manufacturing, Southern University of Science and Technology, Shenzhen, China

High-Throughput Physical Data-Driven Inverse Process Planning for Material Extrusion Additive Manufacturing



Jianxi Luo

Professor, Department of Systems Engineering, City University of Hong Kong

Research in Engineering Design: Past, Present & Future



12 AUG 2026

2:00 PM - 5:30 PM



YEUNG - P7303

City University of Hong Kong

Organizing Committee

- **Jianxi Luo** (Co-Chair), City University of Hong Kong
- **Yi Xiong** (Co-Chair), Southern University of Science and Technology
- **Shuo Jiang**, City University of Hong Kong
- **Zhoumingju Jiang**, Southern University of Science and Technology



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