SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area*: *Control, Intelligent Systems & Robotics (CISR)

Host: Assoc Prof Prahlad Vadakkepat

TOPIC	:	**Adaptive Action Chunking at Inference-time for Vision-Language-Action Models**
SPEAKER	:	**Mr Liang Yuanchang** **Graduate Student, ECE Dept, NUS**
DATE	:	**Wednesday, 7 January 2026**
TIME	:	**9:30AM-10:30AM**
VENUE	:	**Join Zoom Meeting** **https://nus-sg.zoom.us/j/84577675942?pwd=bkhYY3dmczJNa2FkVTVjYVByKzUxQT09** **Meeting ID: 845 7767 5942** **Passcode: 556446**

ABSTRACT

In Vision-Language-Action (VLA) models, action chunking (i.e.}, executing a sequence of actions without intermediate replanning) is a key technique to improve robotic manipulation abilities. However, a large chunk size reduces the model's responsiveness to new information, while a small one increases the likelihood of mode-jumping, jerky behavior resulting from discontinuities between chunks. Therefore, selecting the optimal chunk size is an urgent demand to balance the model's reactivity and consistency. Unfortunately, a dominant trend in current VLA models is an empirical fixed chunk length at inference-time, hindering their superiority and scalability across diverse manipulation tasks. To address this issue, we propose a novel Adaptive Action Chunking (AAC) strategy, which exploits action entropy as the cue to adaptively determine the chunk size based on current predictions. Extensive experiments on a wide range of simulated and real-world robotic manipulation tasks have demonstrated that our approach substantially improves performance over the state-of-the-art alternatives. The videos and source code will be made publicly available.

BIOGRAPHY

Liang Yuanchang is currently a PhD student at the Department of Electrical and Computer Engineering, National University of Singapore. His research interests include data-efficient robot learning and automation for construction.