研究及知識轉移服務處
Office of Research and Knowledge Transfer Services

數碼港 Cyberport

AISC Supercomputing Centre

MINI-SYMPOSIUM

Maximizing AI Research Potential with AI Supercomputing: Opportunities and Strategies with AISS

26 March 2025 (Wed)
11:00 AM - 12:30 PM
UGA, InnoPort

FOREWORD

Artificial Intelligence (AI) transcends boundaries, benefiting not only #Medicine but also #Engineering, #Sustainable Technology, #Smart City, and beyond. In Hong Kong, the AI Subsidy Scheme (AISS) under Cyberport supports the AI ecosystem by subsidizing eligible users to leverage the computing power of Cyberport's Artificial Intelligence Supercomputing Centre (AISC). This empowers users to maximize the AISC's computing capabilities, driving breakthroughs in scientific research.

In this mini-symposium, 3 distinguished CUHK researchers will discuss leveraging AI technology for their research endeavours, and Dr. Crystal Fok, Director of AI Applications at Cyberport will introduce AISS platform.

RUNDOWN

11:00-11:05	**Opening Remarks** **Prof. Benny ZEE** Director, Office of Research and Knowledge Transfer Services, CUHK
11:05-11:15	**Introduction of AISS** Dr. **Crystal FOK** Director, AI Applications at Cyberport
11:15-11:25	**Embedded AI Systems for Autonomous Driving and Smart Health** **Prof. Zhenyu YAN** Assistant Professor, Department of Information Engineering, CUHK
11:25-11:35	**AI Empowered UAS for Smart City Applications** **Prof. Xi CHEN** Research Assistant Professor, Department of Mechanical and Automation Engineering, CUHK
11:35-11:45	**Advancing Orthopaedics Through AI-Driven Solutions: Experience from CUHK ORT** **Prof. Elvis CHUI** Research Assistant Professor, Department of Orthopaedics and Traumatology, CUHK
11:45-12:20	**Roundtable Discussion & Q&A SESSION**
12:20	**End of Mini-Symposium**

SPEAKERS

Prof. Zhenyu YAN

Assistant Professor, Department of Information Engineering, CUHK

Zhenyu Yan is an Assistant Professor at The Chinese University of Hong Kong. Dr. Yan has extensive experience in sensing systems, signal and information processing, cyber-physical systems, and machine learning in IoT systems. His works have been published in top international conferences and journals, such as MobiCom, SenSys, IPSN, IEEE Transactions on Mobile Computing, and ACM Transactions on Sensor Networks. He is the recipient of the Rising Star Award (Early Career Award) from ACM SIGBED China. His papers also received the Best Community Contributions Award at ACM MobiCom 2023, the Best Paper Award Runner-up at ACM MobiCom 2022, and the Best Artifact Award Runner-up at ACM/IEEE IPSN 2021.

Prof. Xi CHEN

Research Assistant Professor, Department of Mechanical and Automation Engineering, CUHK

Dr. Chen has over 10-year experience in sustainable building technologies related to smart city, built environment modelling and urban energy systems. He has managed more than 10 research and industrial projects and co-founded a start-up named CU-Craft. He has also published over 60 papers in peer-reviewed international journals/conferences and coauthored two books in green building and energy efficient systems.

Prof. Elvis CHUI

Research Assistant Professor, Department of Orthopaedics and Traumatology, Faculty of Medicine, CUHK

Professor Chui Chun-Sing is a recognized leader in AI-driven orthopaedics and computer-assisted surgical planning. Serving as Honorary Advisor to the Hospital Authority, he guides 3D printing workflows and advises surgeons on patient-specific implant design. Over the past decade, he has facilitated more than 500 computer-assisted surgeries, integrating real-time navigation and advanced imaging to enhance surgical precision. As head of the Computer Aided Surgical Modeling (CASM) Laboratory, he spearheads the development of AI-based planning and diagnostic software, focusing on personalized treatments and predictive analytics. His international reputation is highlighted by 4 gold-medal achievements at the Geneva International Exhibition of Inventions, underscoring his pioneering role in merging artificial intelligence with orthopaedic practice to elevate patient care.

ABSTRACTS

Embedded AI Systems for Autonomous Driving and Smart Health
By Prof. Zhenyu YAN

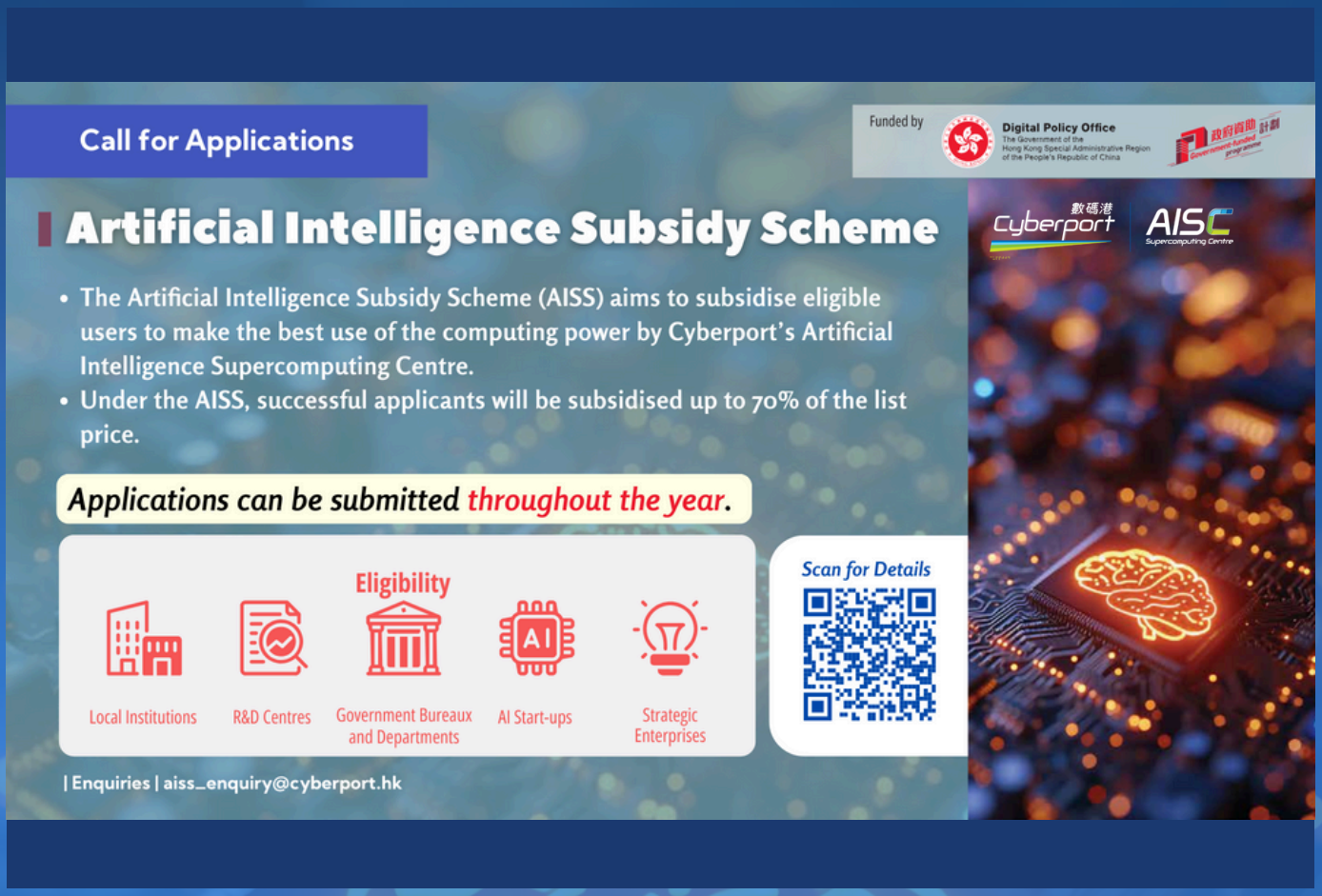
Embedded Artificial Intelligence is rapidly emerging as a transformative computing paradigm, enabling intelligent, real-time, and privacy-preserving interactions with the physical world. In this talk, I will present our recent work on Embedded AI, including real-time inference on resource-constrained platforms and AI-empowered systems for autonomous driving and smart health.

AI Empowered UAS for Smart City Applications
By Prof. Xi CHEN

Within the Smart City 2.0 framework, the integration of Information and Communication Technologies (ICTs) and Unmanned Aerial Systems (UAS) can play a major role in renovating urban management. These cutting-edge technologies enable performing complex tasks with extensive area coverage at a low cost while maintaining high flexibility. In this presentation, we will discuss on the pathway for embodied AI and digital-twin driven UAS applications in systematic management of urban environment for reducing labour costs and mitigating safety hazards.

Advancing Orthopaedics Through AI-Driven Solutions: Experience from CUHK ORT
By Prof. Elvis CHUI

Artificial intelligence (AI) is advancing orthopaedics by providing powerful solutions for diagnosis, pathology progression forecasting, surgical planning, and intraoperative guidance. These innovations enable workflows that were previously unattainable, bringing new possibilities to the field. By improving precision and efficiency, AI-driven technologies enhance clinical decision-making and streamline processes across diagnosis, planning, and surgical intervention, setting new standards for comprehensive orthopaedic care.



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AISS WEBSITE