

Geneva IEIG 2024 Awardee Presentation Day

Date: 13 June 2024 (Thursday)

Venue: Mr & Mrs David T F Chow Lecture Theatre (LT-4), 4/F University Concourse, Yeung Kin Man Academic Building, City University of Hong Kong

Time: 10:15 am to 17: 30 pm

Registration 10:15-10:45				
Welcoming remarks by Director of Knowledge Transfer, Dr. GOH Chin Foo 10:45-10:50				
Project name	Category	TRL	Description	Time
Multi-Site Integrated Power Converters for DC Distribution Networks of Data Centers PI: Prof. JIANG Chaoqiang	New Energy/Green Tech	6	Power conversion system for data centers using nanocrystalline SiC and GaN MAD converters for efficient high power (50-kW) DC-DC conversion from 380V to 4V.	10:50-11:10
Next-Generation High-Power Nanocrystalline Smart Wireless EV Charger (NanoIPT, CityU HK Tech 300) PI: Prof. JIANG Chaoqiang	New Energy/Green Tech	6	Using a layered nanocrystalline magnetic core and novel power control, this wireless charger can deliver high power (22 kW) for fast and efficient electric vehicle charging.	11:10-11:30
EcN_TL: Engineered E. coli Probiotic Formula for Oral Administration PI: Prof. LAU Chi Kong Terrence, Prof. BAN, Kiwon	Life & Health Sciences	5	Our unique formula, comprising two E. coli Nissle 1917 strains, produces short-chain fatty acids that contribute to improved physical and mental health, particularly of the gut and heart.	11:30-11:50
Autonomous Energy Routing and Redistribution Technology for Large-Scale Battery Storage Systems with Health Monitoring Capabilities PI: Prof. CHUNG Shu Hung Henry	New Energy/Green Tech	6	Efficient energy recycling for energy routing, redistribution, and health monitoring of batteries in large-scale energy storage systems.	11:50-12:10
Artificial Mussels: New Universal Tool for Monitoring Heavy metals and Radionuclides in Aquatic Environments (NerOcean Limited, CityU HK Tech 300) PI: Prof. KO Chi Chiu, Vincent	New Energy/Green Tech	6	Artificial mussels with universal metal-capturing materials are innovative sampling tools for effectively monitoring heavy metals and radionuclides in water, reducing costs by 95%.	12:10-12:30
Lunch break: 12:30 - 14:00				
Simultaneous Large Class Assessment for Sports Activities (Centre for Intelligent Multidimensional Data Analysis Ltd, InnoHK)	AI	6	Hardware and software for large-scale motion detection of up to 256 individuals simultaneously can reduce PE teacher workload in the assessment of student sports performance.	14:00-14:20

PI: Prof. YAN Hong				
Haircosys AI Diagnosis for Hair and Scalp (HairCoSys Limited, CityU HK Tech 300) PI: Mr. Michael WONG	AI	5	Using AI analysis of scalp images, even with overlapping hair strands, this tool can quickly measure the number and thickness of hairs for personalized hair health analysis.	14:20-14:40
CitySkyPlan (SmartSkyBuilder, CityU HK Tech 300) PI: Prof. LI Lishuai	AI	4	AI methods for air traffic management of unmanned air vehicles, generating collision-free air route networks to support large-scale operations in urban low-altitude airspaces.	14:40-15:00
ClusterAD: Method of Presenting Aircraft Flight Data and Associated Graphical User Interface PI: Prof. LI Lishuai	AI	4	AI-based analysis of flight data for safe and efficient aircraft fleet operations, including identifying abnormal flight behaviors and improving fuel efficiency.	15:00-15:20
Tea break: 15:20 - 15:50				
LLM-based AI-driven Supply Chain Management Platform PI: Prof. Linqi SONG	AI, FinTech	7	We aim to develop an AI-driven platform that simplifies the process of accessories matching, market monitoring and inventory management. The platform leverages state-of-the-art AI technology to assist both sellers and suppliers in making informed decisions, ultimately enhancing customer satisfaction and business efficiency.	15:50-16:10
3-Axis Micro Gimbal Stabilizer (Vista Innotech Ltd, CityU HK Tech 300) PI: Dr. MAK Lin Chi	Robotics	3	This micro 3-axis camera stabilizer consists of a patented motor structure with only four ball bearings and is 90% smaller than competing products, opening up new potential markets.	16:10-16:30
Nanotwinning Assisted Structurally Stable and Metastable Copper for Advanced Electronic Packaging Applications (Doctech HK Limited, CityU HK Tech 300) PI: Prof. FENG Shien Ping	Microelectronics	7	Stable nanograin copper structures with doped nanotwins for low-temperature bonding for enhancing 3D integrated circuit redistribution layer stacking efficiency.	16:30-16:50
Ice Transfer for 2D Materials and Ultra-clean Semiconductor Device Manufacture PI: Prof. LY Thuc Huy, Dr. Thi Quoc Huy	Microelectronics	7	Method to use water ice to transfer 2D semiconductor components from growth substrates to target substrates with better cleanliness and performance than conventional methods.	16:50-17:10
Bionic Achromatic Meta-Lens Array PI: Prof. Mu Ku CHEN, Prof. Din Ping TSAI	Microelectronics	7	Imaging and range-detection system, with multiple imaging tools in a single device, allows operation in all light-level conditions for facial recognition or autonomous navigation.	17:10-17:30