

**50<sup>th</sup> International Exhibition of Inventions Geneva  
CityUHK's winning projects**

<b>Awards</b>	<b>Company Name</b>	<b>Inventors and Team members</b>	<b>Project</b>
Special Prize and Gold Medal	City University of Hong Kong	<b>Prof. Freddy BOEY</b> Office of President City University of Hong Kong <b>Prof. GOH Chin Foo</b> Knowledge Transfer Office City University of Hong Kong	PRISTINZ Anti-thermal Glass
Gold Medal with Congratulations of the Jury	Cimple Biotechnology Limited, Hong Kong Centre for Cerebro-cardiovascular Health Engineering (COCHE), InnoHK	<b>Prof. CHEN Ting Hsuan</b> <b>Mr. HARTANTO Hogi</b> <b>Miss LI Jiaheng</b> <b>Dr. LIU Wengang</b> Department of Biomedical Engineering City University of Hong Kong	Quantitative Rapid Test for At-home Screening and Management of Personal Healthcare
	City University of Hong Kong	<b>Prof. CHUNG Shu Hung Henry</b> <b>Mr. TANG Ho Tin</b> Department of Electrical Engineering City University of Hong Kong	Innovative Gate Drive Technology: Incorporating Self-adaptive Gate Driving, Health Monitoring, and Crosstalk Mitigation for Wide Band Gap Devices Prevalent in Modern Energy Systems
	City University of Hong Kong	<b>Prof. Johnny HO</b> <b>Miss YIN Di</b> <b>Miss CHEN Mengxue</b> <b>Dr. CHEN Dong</b> <b>Dr. QUAN Quan</b> Department of Materials Science and Engineering City University of Hong Kong	Integrated Reactor for Synergistic Solar-driven Water Purification and Hydrogen Generation
	City University of Hong Kong	<b>Prof. Jason LAM</b> <b>Mr. Qingguo LE</b> School of Energy and Environment City University of Hong Kong	S.M.A.R.T. and Green System to Recycle E-waste for Valuable Metal Recovery
	City University of Hong Kong, Hong Kong Branch of National Precious Metals Material Engineering Research Center (NPMM), LuMAT-SERS Limited*, Hong Kong Centre for Cerebro-cardiovascular Health Engineering	<b>Prof. Jian LU</b> Department of Mechanical Engineering Department of Materials Science and Engineering Department of Biomedical Engineering Department of Biomedical Sciences City University of Hong Kong <b>Dr. Junda SHEN</b> <b>Dr. Binbin ZHOU</b> <b>Dr. Shaofei LI</b>	Nano-Engraved Sensor Detection System for Rapid Detection of CVD Biomarkers and Early Diagnosis of Cardiovascular Diseases

	(COCHE), InnoHK	<b>Mr. Yunqin ZHANG</b> Department of Mechanical Engineering City University of Hong Kong <b>Prof. Yangyang LI</b> Department of Materials Science and Engineering Department of Mechanical Engineering City University of Hong Kong	
Gold Medal	City University of Hong Kong	<b>Prof. ZHU Zonglong</b> <b>Mr. WANG Ning</b> <b>Mr. YU Zexin</b> <b>Dr. ZHANG Chunlei</b> <b>Mr. VANIN Francesco</b> <b>Mr. QIAN Liangchen</b> <b>Dr. GAO Danpeng</b> <b>Dr. WU Xin</b> Department of Chemistry City University of Hong Kong	EcoNexus: InLight Perovskite—Sustainable Indoor Solar Cell System for IoT Self-powered Applications
	City University of Hong Kong	<b>Prof. LIU Chunhua</b> <b>Dr. LIU Yuxin</b> <b>Dr. DONG Zhiping</b> <b>Dr. HUANG Rundong</b> <b>Dr. LIU Senyi</b> <b>Mr. CHEN Yong</b> School of Energy and Environment City University of Hong Kong	Integrated Wireless Motors
	City University of Hong Kong	<b>Prof. Derrick C.Q. JIANG</b> <b>Mr. B. ZHANG</b> <b>Mr. C. CHEN</b> <b>Mr. X.S. WANG</b> <b>Mr. Y.B. WANG</b> <b>Dr. L.P. MO</b> Department of Electrical Engineering City University of Hong Kong	Low-altitude Economy Boost: Efficient and Lightweight Wireless Energy Harvesting System for Unmanned Aerial Vehicle
	City University of Hong Kong	<b>Prof. Pui-Chi LO</b> <b>Prof. Kwan Ting CHOW</b> <b>Dr. Feijie XU</b> <b>Dr. Meijun WANG</b> <b>Dr. Eunice DOTSE</b> Department of Biomedical Sciences City University of Hong Kong	Novel Oxygen-Economizing Photosensitizer: Zinc(II) Phthalocyanine Substituted with NO-releasing Moieties for Enhanced Photodynamic Therapy against Hypoxic Tumours
	City University of Hong Kong	<b>Prof. LIU Chunhua</b> <b>Mr. WANG Tianci</b> <b>Mr. WEN Hao</b> <b>Mr. CHEN Yong</b> <b>Mr. ZHANG Bowen</b> <b>Mr. ZHAO Guoqiang</b>	Portable Parallel Elastic Powered Hip–Knee Exoskeleton with Variable Stiffness and Self-alignment Mechanism

		School of Energy and Environment City University of Hong Kong <b>Prof. YU Feng</b> Nantong University	
	City University of Hong Kong	<b>Prof. Jin SHANG</b> <b>Dr. Tianqi WANG</b> School of Energy and Environment City University of Hong Kong <b>Prof. Zhi NING</b> The Hong Kong University of Science and Technology	Portable Self-cleaning Nitric Oxide Generator
	City University of Hong Kong	<b>Prof. Shien-Ping FENG</b> <b>Prof. Wei-Ting WANG</b> <b>Dr. Sheng-Jye CHERNG</b> <b>Dr. Chih-Chun CHUNG</b> <b>Dr. Yu-Ting HUANG</b> Department of Systems Engineering City University of Hong Kong	Water- and Heat-activated Dynamic Passivation for Perovskite Photovoltaics
	E-VITY LIMITED*	<b>Prof. Juan Antonio ZAPIEN</b> <b>Miss KWONG Yee Man</b> <b>Dr. Md Rashedul HUQE</b> Department of Materials Science and Engineering City University of Hong Kong	Highly Stable Optical Cavity
Silver Medal	Alcarbo Technologies Limited*	<b>Mr. NG Pok Him</b> <b>Dr. CHEUNG Yan Chu</b> <b>Dr. CHAN Kwan Wai</b> Alcarbo Technologies Limited	Nanobubble Flat-panel Photobioreactor
	CAT Limited*	<b>Prof. Michael K.H. LEUNG</b> <b>Dr. Yingguang ZHANG</b> <b>Dr. Jinsong ZHOU</b> <b>Dr. Wei XIONG</b> <b>Miss Keda CHEN</b> <b>Miss LEUNG Tsz Kei</b> <b>Miss TANG Qinglan</b> School of Energy and Environment City University of Hong Kong	Nano-Photocatalytic Coatings for Marine and Built Environments: Antifouling and Anticorrosion, Rust Removal and Lubrication, Antibacterial and Self-Cleaning
	City University of Hong Kong	<b>Prof. Kening ZHU</b> <b>Mr. Haichen GAO</b> <b>Dr. Shaoyu CAI</b> School of Creative Media City University of Hong Kong	Devices and Systems of Inducing Pain Sensations in VR Environments Through Thermal Grill Illusion (TGI)
	City University of Hong Kong	<b>Prof. ZHANG Zijun</b> <b>Mr. ZHAO Xinuo</b> <b>Ms. WANG Liang</b> Department of Data Science City University of Hong Kong	New-generation Artificial Intelligence System for Day-ahead Full-sequence Wind Power Forecasting

City University of Hong Kong	<b>Prof. Ray CHEUNG</b> <b>Prof. Alan LAM</b> <b>Dr. Gaoyu MAO</b> <b>Dr. Guangyan LI</b> <b>Mr. Jinfa HONG</b> <b>Mr. Bohao ZHANG</b> <b>Mr. Zekai ZHANG</b> <b>Dr. Yao LIU</b> Department of Electrical Engineering City University of Hong Kong	S-RISC-V: Lightweight Secure Processor Architecture Prototype and Application
City University of Hong Kong	<b>Prof. Linqi SONG</b> <b>Mr. Sichun LUO</b> <b>Dr. Yinqiao LI</b> <b>Mr. Guanzhi DENG</b> Department of Computer Science City University of Hong Kong	Training And Operating Neural Network–Based Ranking Model
City University of Hong Kong	<b>Prof. Guangyu ZHU</b> <b>Dr. Gongyuan LIU</b> <b>Mr. Zhao YUE</b> Department of Chemistry City University of Hong Kong	Ultrasound-activatable platinum-based anticancer agents
City University of Hong Kong, Centre for Intelligent Multidimensional Data Analysis (CIMDA), InnoHK	<b>Mr. Qixuan ZHENG</b> <b>Prof. Hong YAN</b> Department of Electrical Engineering City University of Hong Kong	Effective Image Matching Using Hypergraph Models
HBI BIOCHIP Limited*	<b>Prof. KHOO Bee Luan</b> <b>Dr. LIAO Junchen</b> <b>Mr. ZHU Mingze</b> <b>Mr. ZHANG Linghan</b> <b>Mr. HE Qiuyang</b> <b>Mr. XIE Yuxiao</b> Department of Biomedical Engineering City University of Hong Kong	Intelligent Microfluidic Chip Platform for Regenerative Medicine and Liquid Biopsy Screening
SeaNet Cable Planning and Design Company Limited*, Centre for Intelligent Multidimensional Data Analysis (CIMDA), InnoHK	<b>Prof. Moshe ZUKERMAN</b> <b>Prof. William MORAN</b> <b>Prof. Yanni SUN</b> <b>Prof. Yu WANG</b> <b>Prof. Gang WANG</b> <b>Prof. Felipe CUCKER</b> <b>Prof. Jun GUO</b> <b>Dr. Xinyu WANG</b> <b>Dr. Tianjiao WANG</b> <b>Dr. Qing WANG</b> <b>Dr. Chao GUO</b> <b>Dr. Elias TAHCHI</b> <b>Mr. Fahan CHEN</b> <b>Mr. C. F. LEUNG</b> <b>Mr. Shuhong LIN</b>	Towards a Smarter, Connected World: Automatic, Intelligent and Reliable Submarine Optical Cable Path and System Design

		<p><b>Miss Jiahe XU</b> Department of Electrical Engineering City University of Hong Kong</p> <p><b>Prof. Zengfu WANG</b> Northwestern Polytechnical University</p>	
	<p>SmartHeart Limited*, Hong Kong Centre for Cerebro-cardiovascular Health Engineering (COCHE), InnoHK</p>	<p><b>Prof. Zuankai WANG</b> The Hong Kong Polytechnic University</p> <p><b>Prof. Yuanting ZHANG</b> The Chinese University of Hong Kong</p> <p><b>Dr. Xiao YANG</b> Hong Kong Centre for Cerebro-Cardiovascular Health Engineering (COCHE)</p> <p><b>Miss Zijun LIU</b></p> <p><b>Miss Ting XIANG</b> Department of Biomedical Engineering, City University of Hong Kong</p> <p>Hong Kong Centre for Cerebro-Cardiovascular Health Engineering</p> <p><b>Dr. Nan JI</b> The Chinese University of Hong Kong</p>	<p>Smart Wearable Microneedle Device: Effortless Precision Drug Delivery</p>
	<p>SOLAR.E Tech LIMITED*</p>	<p><b>Prof. Wei WU</b></p> <p><b>Mr. Fuxiang LI</b></p> <p><b>Dr. Zengguang SUI</b></p> <p><b>Dr. Yunren SUI</b></p> <p><b>Dr. Zhixiong DING</b> School of Energy and Environment City University of Hong Kong</p>	<p>Offshore Floating Factory for Electricity-water-food Coproduction</p>
	<p>STRELI Technology Limited#</p>	<p><b>Prof. Lishuai LI</b> Department of Data Science City University of Hong Kong</p> <p><b>Prof. Way KUO</b> Hong Kong Institute for Advanced Study City University of Hong Kong</p> <p><b>Prof. Xiaohua JIA</b> Department of Computer Science City University of Hong Kong</p> <p><b>Dr. Xinyu HE</b> Department of Data Science City University of Hong Kong</p>	<p>ECO-AI: Energy and Carbon Optimization with AI for Industry</p>

	Taikangnuo Biotechnology Limited*	<b>Prof. HE Jufang</b> <b>Mr. REN Junming</b> <b>Mr. XIAO Zhoujian</b> <b>Dr. HE Ling</b> Department of Neuroscience City University of Hong Kong	RodentEpiNet: AI-Empowered Recognition and Analytics for Behavioural Phenotype of Epilepsy in Rodent
Bronze Medal	City University of Hong Kong	<b>Prof. Freddy BOEY</b> Office of President City University of Hong Kong <b>Prof. LI Xinke</b> Department of Data Science City University of Hong Kong <b>Prof. GOH Chin Foo</b> <b>Ms. Valerie YEO</b> Knowledge Transfer Office City University of Hong Kong <b>Prof. GAO Yunfeng</b> CityUHK Academy of Innovation City University of Hong Kong	Breath A.I
	City University of Hong Kong	<b>Prof. LY Thuc Hue</b> <b>Dr. HUANG Lingli</b> <b>Dr. THI Quoc Huy</b> <b>Mr. CHEN Honglin</b> Department of Chemistry City University of Hong Kong	Engineering Surface Wrinkles to Modulate Electrical and Optical Properties for Nanodevices

(\* ) The award-winning teams under HK Tech 300, CityUHK's large-scale flagship innovation and entrepreneurship programme

(#) A CityU spin-off (formed by CityU staff and students to champion the commercial exploitation of CityU IPs

#### **Collaborative project through participation in the competition by Drainage Services Department**

Silver Medal	City University of Hong Kong, Drainage Services Department <sup>##</sup>	<b>Prof. LEE Patrick Kwan Hon</b> <b>Dr. LIM Chee Kent</b> School of Energy and Environment City University of Hong Kong <b>Ms. LIEW Shiau Wei</b> <b>Prof. KWOK Chun Kit</b> Department of Chemistry City University of Hong Kong	CRISmart - CRISPR-based Smartphone Microbial Assay for Rapid Testing
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(##) The invention is jointly developed by CityUHK and Drainage Services Department

#### **Collaborative project through participation in the competition by Lingnan University**

Silver Medal	City University of Hong Kong, Lingnan University**	<b>Prof. Si-Zhao QIN</b> Lingnan University <b>Prof. Lishuai LI</b> <b>Prof. Yining DONG</b> <b>Dr. Yiren LIU</b> Department of Data Science City University of Hong Kong	A Multi-time-scale Model for Day-ahead Forecasting of Passenger Travel-time and Destinations Distribution
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*(\*\*) The invention is jointly developed by CityUHK and Lingnan University*