Dean's Award for Outstanding Achievement in Research Funding 2023

(Complete List of Projects)

Awardee (Dept)	Allocation Date	Project Title (Funding Scheme)
Prof. Shengwei WANG (BEEE)	5 Jan 2021	Development of next-generation key technologies for smart buildings *(RGC Collaborative Research Fund)*
	1 Jul 2022	Development of distributed optimal control strategies for building HVAC systems for implementation in field control and smart sensing networks *(RGC General Research Fund)*
Prof. Tommy WEI (BEEE)	1 Jul 2022	Development of a Uniform Color Space for Stimuli under High Dynamic Range Conditions *(RGC General Research Fund)*
	5 Aug 2022	Color Appearance Model and Color Space *(NSFC Excellent Young Scientist Fund (HK & Macau))*
Prof. Tarek ZAYED (BRE)	7 Apr 2021	Modeling and Analysis of Water Pipe Failure: Investigate Causes, Find Solutions, and Develop Potential Strategies, Policies, and Regulations *(Innovation Technology Fund – ITSP)*
	16 Jun 2022	Smart Assessment of Bridge Deck Efficiency and Safety in Hong Kong *(Smart Traffic Fund)*
	1 Jul 2022	A Novel Modelling Approach for Predicting Sewer Failure *(RGC General Research Fund)*
Prof. Yi-Qing NI (CEE)	8 Jan 2019	Enhancing safety, punctuality and ride comfort of railway transportation: From local metro system to global high-speed rail network *(RGC Research Impact Fund)*
	1 Jul 2022	Physics-informed parameter identification of linear and nonlinear structural systems *(RGC General Research Fund)*

Prof. Tao WANG (CEE)	1 Jul 2021	Field and laboratory investigations of reactive bromine gases and their impact on winter air quality *(RGC General Research Fund)*
	1 Jul 2022	Hydrochloric acid in the polluted coastal atmosphere of South China: abundances, sources, and impacts *(RGC General Research Fund)*
	31 Oct 2022 (Date of Approval)	珠江三角洲大氣活性氮綜合觀測與演變規律研究 *(MOST National Key Technologies R&D Program)*
	30 Nov 2022 (Date of Approval)	臭氧污染過程、機理及預報方法研究 *(NSFC Major Programme)*
Prof. Zhen LENG (CEE)	1 Jul 2020	Multiscale Characterization of the Short-term and Long-term Interaction between Surface-treatment Emulsion and Porous Asphalt (PA) Mixture towards More Durable PA Road Surfaces *(RGC General Research Fund)*
	1 Jul 2021	Multiphysics and Multiscale Study of Water Migration and Performance Evolution Mechanism of Bitumen Emulsion Cold In-Place Recycled Mixture *(RGC General Research Fund)*
	1 Jul 2022	Characterization of the Interaction between Asphalt Emulsion and Cementitious Grout in Cold-mix Semi-flexible Grouted Macadam towards a Sustainable Heavy-duty Paving Material *(RGC General Research Fund)*
Prof. Daniel TSANG (CEE)	1 Feb 2018	Enhancing water resilience with blue-green infrastructure: A pilot-scale study on bioretention systems for stormwater harvesting in new development areas *(Environment and Conservation Fund)*
	1 Jul 2018	Engineered Biochar as Catalyst for Synthesis of Value-Added Chemicals: Manoeuvring Surface Functionalities and Pore Structure *(RGC General Research Fund)*
	1 Jul 2020	Tailoring Next-generation Biochar Catalyst for Biorefineries via Integrated Experimental-computational Investigations *(RGC General Research Fund)*
	10 Feb 2021	Hydrothermal carbonization for recycling organic waste into biochar for soil improvement in Hong Kong *(Environment and Conservation Fund)*
	28 Jan 2022	Recycling yard waste into new-generation biochar adsorbents for CO2 and VOCs removal *(Environment and Conservation Fund)*

Prof. Zhen-yu YIN (CEE)	1 Jul 2020	Multiscale hydro-mechanical modeling of marine silty clay interacting with FRP foundation structure in consideration of rate and abrasion effects *(RGC General Research Fund)*
	1 Jul 2021	Deep Learning-based Multiscale Approach for Granular Materials from Particle Recognition to Mechanical Modelling *(RGC General Research Fund)*
	1 Jul 2022	Multiscale approach for granular materials reinforced by disposable face-mask chips *(RGC General Research Fund)*
Prof. Tao YU (CEE)	10 Feb 2021	Lightweight multifunctional noise barriers/noise enclosures incorporating smart fibre-reinforced polymer (FRP) composites *(Environment and Conservation Fund)*
	1 Jul 2021	Ductile FRP-Steel-Concrete Coupling Beams *(RGC General Research Fund)*
	7 Jun 2022	Precast Seawater Sea-sand Self-Compacting Concrete Structures Reinforced with Fibre-Reinforced Polymer (FRP) Composites *(Innovation Technology Fund – TCFS)*
	1 Jul 2022	Rectangular FRP-confined Double-Skin Tubular Columns with a T-Section-Stiffened Rectangular Steel Tube *(RGC General Research Fund)*
Prof. Songye ZHU (CEE)	26 Sept 2018	Smartphone as Next-generation Monitoring Devices for Construction-induced Vibrations and Noise *(Construction Industry Council)*
	8 Jan 2019	Enhancing safety, punctuality and ride comfort of railway transportation: From local metro system to global high-speed rail network (CEE-2) *(RGC Research Impact Fund – sub-project)*
	30 Nov 2019 (Date of Approval)	跨海集群設施服役狀態評估及智慧維養技術與裝備 *(MOST National Key Technologies R&D Program)*
	1 Jul 2020	Novel Self-Powered Active Vibration Control Technique for Bridge Stay Cables *(RGC General Research Fund)*
	1 Jul 2022	Tunable Ultra-low-frequency Pendulum Oscillator and Its Application in Wave Energy Conversion *(RGC General Research Fund)*

Dr Nathanael JIN (CEE)	1 Jul 2020	Contribution of selected toxic components and associated sources to differential mixture effects of city-specific PM2.5 on human lung cells: How much of the iceberg have we seen? *(RGC Early Career Scheme)*
	1 Jul 2022	Effects of urban airborne particulate matter and associated toxic components on pathogen receptor expression in human airway epithelial cells *(RGC General Research Fund)*
	5 Jul 2022	Unravelling the Black Box between Air Pollution and Public Health for Transformative Air Quality Management (CEE-2) *(RGC Theme-based Research Scheme – sub-project)*
Prof. Wu CHEN (LSGI)	1 Jul 2018	A New Approach for UAV Auto-pilot System in Underground Tunnel Inspection Based on RGB-D Sensors *(RGC General Research Fund)*
	15 Feb 2019	Trial: Integrated Navigation System with Advanced BLE IoT Network *(Innovation Technology Fund – LSCM)*
	8 Oct 2020	Enhance Performance of HK GNSS positioning infrastructure with Beidou III and other GNSS constellations *(Innovation Technology Fund – LSCM)*
	29 Dec 2021	Reliable Multi-Agent Collaborative GNSS Positioning for Intelligent Transportation Systems (LSGI-1) *(RGC Research Impact Fund – sub-project)*
	29 Jun 2022	Hong Kong GNSS signal quality monitoring and interference detection system *(Innovation Technology Fund – LSCM)*
Prof. Charles WONG (LSGI)	1 Jul 2021	Assessing the Impact of Urban Spatial Context on NO2 Concentrations: A New Perspective under Variable Socioeconomic Activity Restrictions *(RGC General Research Fund)*
	4 Jan 2022	Study of Carbon Sequestration in Hong Kong's Vegetation: from Present to Future Prediction under Climate Change *(RGC Collaborative Research Fund)*

Dr Wallace LAI (LSGI)	1 Jul 2020	Time-lapse Imaging and Diagnosis of Urban Subsurface Hazards by Ground Penetrating Radar *(RGC General Research Fund)*
	1 Jul 2021	Multi-scale and Multi-array Ground Penetrating Radar (GPR) Diagnosis of Underground Hazards *(RGC General Research Fund)*
	30 Nov 2022	Next-generation Imaging Technologies of Rapid Leakage Diagnosis of Underground High-Pressure and Large Water Mains in Carriageway *(Innovation Technology Fund – LSCM)*
Dr Xiaolin ZHU (LSGI)	18 Sept 2020	Remote sensing: time series image processing *(NSFC Excellent Young Scientist Fund (HK & Macau))*
	1 Jul 2022	Reducing uncertainty in daily nighttime light remote sensing due to angular and cloud effects *(RGC General Research Fund)*