

Outputs Arising from Dean's Research Fund

Nineth Round

Individual Research Scheme (IRS)	
Project Leader	Wong Yee Hang Mathew, SSPS
Project Title (<i>Ref No.</i>)	Assessing China's External Investments: A Review (<i>IRS-1</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Wong, M. Y., & Downes, J. F. Reassessing the Impact of China's Belt and Road Initiative: A Mixed Methods Approach. <i>Journal of Chinese Political Science</i>, 1-26. (2024) <p>Conference</p> <p>Year: 2023</p> <p>Mid-West Political Science Association Conference</p> <p>Title: Building Influence or Buying Friends? Reconsidering Participation and Impact of China's Belt and Road Initiative (With James F. Downes)</p> <p>External Grant</p> <ol style="list-style-type: none"> GRF <p>Reconsidering the Impact of China's Belt and Road Initiative and Foreign Economic Linkages (Date of application: November 2022)</p>
Project Leader	Dr. AU Ka Man, SES
Project Title (<i>Ref No.</i>)	Synthesis of biologically compatible metal-organic frameworks based on main group metals (<i>IRS-2</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Wu, C., Low, K. H., & Au, V. K. M. Efficient removal and sensing of copper (II) ions by alkaline earth metal-based metal-organic frameworks. <i>Journal of Solid State Chemistry</i>, 322, 123936. (2023) Au, V. K. M., & Yam, V. W. W. Luminescent bis-alkynylgold (III) complexes with bidentate cyclometalating ligands: A comparison study with related tridentate cyclometalated complexes. <i>Journal of the Chinese Chemical Society</i>, 70(5), 1237-1251. (2023) Wu, C., & Au, V. K. M. Efficient removal of piroxicam and ketoprofen by acid-modulated iron (III) metal-organic frameworks. <i>Journal of Industrial and Engineering Chemistry</i>, 129, 544-554. (2024)
Project Leader	Dr Li Wai Chin, SES
Project Title (<i>Ref No.</i>)	The role of root system architectures on cadmium accumulation in rice

	and the underlying mechanisms (<i>IRS-3</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Chi, Y., Tam, N. F. Y., Li, W. C., & Ye, Z. Multiple geochemical and microbial processes regulated by redox and organic matter control the vertical heterogeneity of As and Cd in paddy soil. <i>Science of the Total Environment</i>, 839, 156229. (2022) Xiao, A., Chi, Y., Huang, L., Li, W. C., & Ye, Z. Effects of cultivar, water condition and their interactions on Cd accumulation in rice grains. <i>Ecotoxicology and Environmental Safety</i>, 262, 115168. (2023) Rokonuzzaman, M., Ye, Z., Wu, C., & Li, W. C. Arsenic Elevated Groundwater Irrigation: Farmers' Perception of Rice and Vegetable Contamination in a Naturally Arsenic Endemic Area. <i>International Journal of Environmental Research and Public Health</i>, 20(6), 4989. (2023) <p>External Grant</p> <ol style="list-style-type: none"> GRF Effects of Mn Oxidizing Bacteria on Mn Transformation, and Cycling of Nutrients and Heavy Metal(loid)s in Mn Mine Tailing (Date of application: November 2022)
Project Leader	Dr Man Yu Bon, SES
Project Title (<i>RefNo.</i>)	Health Risk Assessment of Persistent Toxic Substances in Freshwater Fish Fed by Fly Larvae (<i>IRS-4</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Huang, Z. L., Yang, Z. B., Xu, X. X., Lei, Y. J., He, J. S., Yang, S., ... & Cheng, Z. Health risk assessment of mercury in Nile tilapia (<i>Oreochromis niloticus</i>) fed housefly maggots. <i>Science of The Total Environment</i>, 852, 158164. (2022) Gao, M., Yang, Z. B., Xu, X. X., Xian, J. R., Yang, Y. X., Yang, S., ... & Cheng, Z. Using fly larvae to convert food waste for growing Oujiang color common carps: health risk assessment of polycyclic aromatic hydrocarbons. <i>Environmental Science and Pollution Research</i>, 30(15), 43496-43504. (2023) Peng, R. J., Zheng, C., Yang, Z. B., Xu, X. X., Wong, M. H., Man, Y. B., & Cheng, Z. Selenium toxicity and bioaccumulation in selenium-enriched fly (<i>Chrysomya megacephala</i>) maggots. <i>Environmental Geochemistry and Health</i>, 45(7), 4493-4503. (2023) <p>External Grant</p> <ol style="list-style-type: none"> GRF

	Activated charcoal/biochar supplemented diet to limit uptake of microplastics and metals in Nile tilapia: Effect on gut microbiota and liver metabolisms (Date of application: November 2022)
Project Leader	Prof So Wing Mui Winnie, SES
Project Title (<i>Ref No.</i>)	Teachers' intention towards and competency for implementing interdisciplinary STEM education (<i>IRS-5</i>)
Output:	<p>Journal/ book</p> <p>1. So, W. W. M., Examining factors affecting primary teachers' STEM teaching intention (<i>2024 Under Preparation</i>)</p> <p>Conference 2024 (Singapore) Name: International STEM Education Conference 2024 Singapore Title: Examining factors affecting primary teachers' STEM teaching intention (<i>Abstract will be submitted in June 2024</i>)</p>
Project Leader	Dr Deng Wenjing, SES
Project Title (<i>Ref No.</i>)	Disinfection by-products in natural aquatic environment and drinking water (<i>IRS-6</i>)
Output:	<p>Journal/ book</p> <p>1. Liu, J., Hu, L. X., Deng, W. J., Ying, G. G., Hong, H., Tsang, E. P., & Barceló, D. Pilot study of pollution characteristics and ecological risk of disinfection byproducts in natural waters in Hong Kong. <i>Environmental toxicology and chemistry</i>, 41(10), 2613-2621. (2022)</p> <p>2. Liu, J., Deng, W. J., Ying, G. G., Tsang, E. P., & Hong, H. C. Occurrence and distribution of antibiotics in surface water. <i>Ecotoxicology</i>, 31(7), 1111-1119. (2022)</p> <p>3. Li, N., Liu, J., Ying, G., Lee, J. C. K., Leung, T. F., Covaci, A., & Deng, W. J. Endocrine disrupting chemicals in children's and their parents' urine: Is the exposure related to the Chinese and Western lifestyle?. <i>International Journal of Hygiene and Environmental Health</i>, 259, 114383. (2024)</p> <p>External Grant</p> <p>1. GRF Project Title: Factors associated between Chinese children's dietary patterns and their serum concentrations of perfluorinated compounds (Date of application: September 2023)</p> <p>Other impact / output</p>

	<p>1. PI, Dr. Deng has built up a strong collaboration with Prof Barceló Damià from Catalan Institute for Water Research (ICRA) Girona Spain</p>
Project Leader	Dr Tsang Yiu Fai, SES
Project Title (<i>Ref No.</i>)	Removal Mechanisms of Ultraviolet (UV) Filters/Stabilizers in Bioreactors coupled with Pretreatment Using Advanced Oxidation Processes (<i>IRS-7</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Zhou, Y., Zhou, J., Yu, J., Huang, X., Niu, X., & Tsang, Y. F. Improved integrated anaerobic–anoxic–oxic system for landfill leachate treatment using domestic wastewater as carbon source: Performance study and optimization. <i>Process Safety and Environmental Protection</i>, 174, 997-1002. (2023) Jung, S., Tsang, Y. F., Kwon, D., Choi, D., Chen, W. H., Kim, Y. H., ... & Kwon, E. E. CO₂-mediated thermal treatment of disposable plastic food containers. <i>Chemical Engineering Journal</i>, 451, 138603. (2023) Kim, S., Yang, W., Lee, H. S., Tsang, Y. F., & Lee, J. Effectiveness of CO₂-mediated pyrolysis for the treatment of biodegradable plastics: A case study of polybutylene adipate terephthalate/polylactic acid mulch film. <i>Journal of Cleaner Production</i>, 372, 133763. (2022) <p>Conference Year: 2023 (Matsue City, Japan) Name: The 8th International Conference on Environmental Engineering and Sustainable Development (CEESD2023) Title: Strengthening drinking water security through development of climate resilient water safety plan for urban water supply system of Bangladesh.</p> <p>External Grant 1. GRF Project Title: Bioconversion of Biogas from Anaerobic Digestion of Waste Activated Sludge into Biodegradable Polyhydroxyalkanoate-based Copolymers in Continuous Gas-fed Bioreactors (Date of application: Nov 2023)</p>
Project Leader	Dr Sun Daner, MIT
Project Title (<i>Ref No.</i>)	Revisiting and Reexamining University Students' Knowledge Transfer and Collaboration in Computer Supported Collaborative Learning (CSCL) Environment in Higher Education: Social Network Analysis

	(IRS-8)
Output:	Journal/ book 1. Daner Sun, Chee-Kit Looi, Yuqin Yang*, Fenglin Jia, British Journal of Educational Technology (<i>Under Review</i>) exploring preservice mathematics teachers' noticing from the lens of value and beliefs: A comparative study among Mainland China, Hong Kong and the United States (Date of application: September 2022)
Project Leader	Dr Pei Qing, SSC
Project Title (<i>RefNo.</i>)	Climate change and southward nomadic migration across the Yangtze River during mid-to-late imperial China (IRS-10)
Output:	Journal/ book 1. Pei, Y., Pei, Q., Lee, H. F., Qiu, M., & Yang, Y. Epidemics in pre-industrial Europe: Impacts of climate change, economic well-being, and population. <i>Anthropocene</i> , 37, 100317. (2022) 2. Qiu, M., Pei, Q., & Lin, Z. The geography of religions: Comparing Buddhist and Taoist sacred mountains in China. <i>Geographical Research</i> , 61(1), 58-70. (2023)

Interdisciplinary Research Scheme (IDS)	
Project Leader	Prof Chow Cheuk Fai Stephen, SES
Project Title (<i>RefNo.</i>)	Heterobimetallic Catalysts for C-H Activation and Functionalization (IDS-1)
Output:	Journal/ book 1. Chow, C. F., Tang, Q., Gong, C. B., & Mung, S. W. Y. Indicator-catalyst displacement assay for tandem detection and signal amplification of dimethoate organophosphate pesticide. <i>Sensors and Actuators B: Chemical</i> , 405, 135335. (2024) External Grant 1. GRF Project title: Catalyst displacement assay: design and synthesis of Prussian blue analogs-modified g-C ₃ N ₄ /TiO ₂ for selective detection, signal amplification, and degradation of organophosphate pesticides (Date of application: November 2023)
Project Leader	Dr Cheng Kwok Shing Gary, MIT
Project Title (<i>RefNo.</i>)	A personalized task recommendation system for vocabulary learning based on context readability and task diversity for university graduates

	(IDS-3)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> 1. Ruofei Zhang, Gary Cheng* Di Zou, Effectiveness of game elements of digital game-based vocabulary learning in engaging learners and developing English as a foreign language vocabulary knowledge. <i>Computers & Education (Under Review)</i> 2. Zhang, R., Zou, D., & Cheng, G. Self-regulated digital game-based vocabulary learning: motivation, application of self-regulated learning strategies, EFL vocabulary knowledge development, and their interplay. <i>Computer Assisted Language Learning</i>, 1-43. (2024) <p>Conference Year: 2023 (Bangkok, Thailand) Name: The 6th International Conference on Technology in Education Title: Towards the design of a personalized vocabulary learning system for university graduates based on context readability and task diversity</p> <p>External Grant</p> <ol style="list-style-type: none"> 1. GRF Project title: Towards the Design and Evaluation of a Teacher-chatbot Collaboration Mechanism to Facilitate Personalized Learning in Higher Education (Date of application: November 2023) <p>Other impact / output</p> <ol style="list-style-type: none"> 1. Excellent Paper Award for the paper “Towards the design of a personalized vocabulary learning system for university graduates based on context readability and task diversity”, International Conference on Technology in Education 2023 (ICTE 2023), 19-21 December 2023, Bangkok, Thailand.
Project Leader	Dr Tan Weiqiang, SSPS
Project Title (Ref No.)	Urban Education Resources and Corporate Labor Costs in China (IDS-4)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> 1. Tan, W., Xie, C., & Ye, D. Do urban educational resources affect corporate labor costs?. <i>Economic Modelling</i>, 130, 106567. (2024) <p>External Grant</p> <ol style="list-style-type: none"> 2. GRF Project title: Customized Financial Literacy Education Programme in Rural Village in China: A Randomized Control Trial (Date of application: October 2022)
Project Leader	Dr Sun Fenghua, HPE

Project Title (<i>Ref No.</i>)	Impacts of Physical Activity and Psychological Factors on the Association between Embodied Cognition and Literacy Development in Chinese Children (<i>IDS-5</i>)
Output:	<p>Journal/ book</p> <p>1. Journal of Science and Medicine in Sport (<i>Under Review</i>)</p> <p>Conference</p> <p>Year: 2024 (Hong Kong)</p> <p>Name: International Postgraduate Roundtable and Research Forum cum Summer School (IPRRFSS) 2024</p> <p>Title: The Role of Motor Coordination in the Association between Physical Activity and Executive Function among Preschoolers</p> <p>External Grant</p> <p>1. HMRF</p> <p>Project title: Efficacy of a Chatbot-delivered tailored online intervention in promoting parent-led daily mile among physically inactive primary school students: A partially-blinded randomized controlled trial (Date of application: March 2024)</p>

Dean's Research Fund – Strategic Research Area Scheme (SRAS)	
Project Leader	Prof Yu Leung Ho Philip, MIT
Project Title (<i>Ref No.</i>)	An Intelligent Platform for Desk Behavior Assessment via Joint Action and Attention Analysis (<i>SRAS-1</i>)
Output:	<p>Journal</p> <p>1. Li, R., Fu, H., Zheng, Y., Gou, S., Yu, J. J., Kong, X., & Wang, H. Behavior Analysis with Integrated Visual-Motor Tracking for Developmental Coordination Disorder. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i>, Vol. 31, pp. 2164-2173. (2023)</p> <p>2. Li, B., Li, R., Wang, W., & Fu, H. Serial-parallel multi-scale feature fusion for anatomy-oriented hand joint detection. <i>Neurocomputing</i>, 536, 59-72. (2023)</p> <p>3. X. Yue, H. Fu, and Philip L. H. Yu Computational study and recognition performance for the closed-loop coordination between visual perception and finger motor: A Systematic Review in Special Education (<i>Under Preparation</i>)</p>

	<p>External Grant</p> <ol style="list-style-type: none"><li data-bbox="496 197 1402 439">1. NSFC/RGC Joint Research Scheme 2023/24 Exercise Project Title: Artificial Intelligence Aided Diagnosis of Developmental Coordination Disorder in Children Based on Neuroimaging and Behavioral Representations with Multimodal Collaborative Learning (Date of Application: February 2023)
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Dean's Research Prize – Research Output Prize (ROP)	
Project Leader	Dr Au Ka Man, SES
Project Title (<i>Ref No.</i>)	Preferences for private long-term care insurance products in a super-ageing society: a discrete choice experiment in Hong Kong (<i>ROP-4</i>)
Output:	<p>Journal</p> <ol style="list-style-type: none"> 1. Vonika Ka-Man Au, Michael Ho-Yeung Chan, Vivian Wing-Wah Yam*, “8.14 – Luminescent supramolecular assemblies” in <i>Comprehensive Inorganic Chemistry III 2023</i>, pp. 2. Vonika Ka-Man Au, Vivian Wing-Wah Yam*, “Luminescent bis-alkynylgold(III) complexes with bidentate cyclometalating ligands: A comparison study with related tridentate cyclometalated complexes”, <i>Journal of the Chinese Chemical Society</i>, 2023, 70, 1237-1251.
Project Leader	Dr Tsang Yiu Fai, SES
Project Title (<i>Ref No.</i>)	N- and O self-doped biomass porous carbon cathode in an electro-Fenton system for chloramphenicol degradation (<i>ROP-10</i>)
Output:	<p>One Rank A* journal article (IF: 11.1) acknowledge the support of</p> <p>Dean's Research Fund:</p> <p>Kim, S., Yang, W., Lee, H.S., Tsang, Y.F.*, Lee, J.* (2022). Effectiveness of CO₂-mediated pyrolysis for the treatment of biodegradable plastics: A case study of polybutylene adipate terephthalate/polylactic acid mulch film. <i>Journal of Cleaner Production</i>, 372, 133763.</p> <p>One Book Chapter acknowledge the support of</p> <p>Dean's Research Fund:</p> <p>Khan, M. T., Cheng, Y. L., Hafeez, S., Tsang, Y. F., Yang, J., & Nawab, A. (2020). Microplastics in wastewater: Environmental and health impacts, detection, and remediation strategies. <i>Handbook of Microplastics in the Environment</i>, 1-33.</p>