Previous Awardees of
Shanghai Jiao Tong University—University of Melbourne
Joint PhD Projects

2024

UoM PI	UoM Faculty	SJTU PI	SJTU Faculty	Project Title
Prof Richard Sandberg	FEIT	Prof Decheng Wan	Computational Marine Hydrodynamics Lab	More Accurate Marine CFD Predictions Enabled by a Novel Machine-Learning Approach
Dr Helena Wang	FEIT	Prof Xinhao Li	School of Chemistry and Chemical Engineering	Design of Mott-Schottky Electrocatalysts for Green Hydrogen Production
A/Prof Xingliang Yuan	FEIT	A/Prof Shifeng Sun	School of Cyber Science and Engineering	Privacy-aware Semantic Search and Its Applications for Secure Retrieval Augmented Generation
Prof Scott Mueller	MDHS	Prof Lai Guan Ng	Shanghai Immune Therapy Institute, School of Medicine	Neural Regulation of the Tumour Immune Ecosystem
Prof Sun Sheng Han	ABP	Dr Fujie Rao	Department of Architecture, School of Design	Urban Institutions, Socioeconomic-spatial Mix and the City Centre: Comparing Melbourne and Shanghai
Prof Elaine Wong	FEIT	Prof Qunbi Zhuge	School of Electronic, Information and Electrical Engineering	End-to-End Optical Network Management with LLM-powered AI Agent
Dr Eirini Goudeli	FEIT	A/Prof Chenxi Li	School of Environmental Science and Engineering	Scalable gas-phase synthesis of nanostructured High Entropy Materials (HEMs)
Prof David Ackland	FEIT	Prof Xiaojun Chen	School of Mechanical Engineering	A Surgical Navigation System based on Endoscopic Ultrasound Multi-Modal Image Fusion and 3D Reconstruction

Dr Xiaofei (Alex) Duan	SCI	Dr Hang Xu	School of Ocean and Civil Engineering	Machine Learning-Assisted Sustainable Critical Metal Extraction and Separation from Seawater
A/Prof Xuemei Liu	FEIT	A/Prof Jinbo Chen	School of Ocean and Civil Engineering	Advanced High-Performance Cement for Gas Flow and CO2 Leakage Prevention in Geothermal and Carbon Capture and Storage Wells

2021

UoM PI	Faculty	SJTU PI	Project Title 1	Project Title 2
Prof Peter Vee Sin Lee	FEIT	Prof Cheng-Kung Cheng	Development of auxetic structures for optimal orthopaedic implant / bone integration	Macro- and micro- morphology of anterior cruciate ligament-bone interface and its effect on force transmission
Prof Deli Chen	SCIENCE	Prof Jiang Lu	Managing grape and wine quality using plant growth-promoting microbes in soil bio-fertilisers	Effect of plant growth-promoting rhizobacteria on the grapevine disease management and grape quality
Prof Richard Sanberg	FEIT	Dr Weipeng Li	Modelling of wall pressure fluctuations with resolvent analysis	Far-field noise prediction based on machine learning
Prof Ying Tan	FEIT	Prof Weidong Zhang	Collaborative Autonomous Systems for Maritime Search and Rescue Using USVs and UAVs	Efficient Data-Driven Optimization in Cooperative Control Systems with Constraints
A/Prof Zhe Liu	FEIT	Dr Hong Liu	A multiscale simulation study on the shuffling-controlled deformation twinning	An atomistic study of solute atom segregation on the structure, energy, and mobility of twin boundaries in Mg alloys

2020

UoM PI	Faculty	SJTU PI	UoM Home Project Title	SJTU Home Project Title
Dr Julie Tian Miao	ABP	Prof Shougui Luo	Housing the Creative Workers: A Comparative Study of Shanghai and Melbourne	The structure, growth and governance mechanisms of regional innovation systems: A comparative study of Yangtze River Delta, China and the State of Victoria, Australia
A/Prof Ute Knoch	Arts	Prof Yan Jin	Expanding what is measured in second language academic writing assessments: A corpus-based approach	Conceptualising and operationalising the construct of critical thinking in speaking assessments of English as a foreign language
Prof Yi Yang	FEIT	Prof Xingcai Lu	Decarbonising future transport with ammonia fueled engines	Combustion Chemical Kinetics of Ammonia-Diesel Binary Fuels
A/Prof Yinghui Tian	FEIT	Prof Guanlin Ye	Developing a novel foundation to secure floatable renewable energy turbines	Long-term behaviour of offshore pile foundations under cyclic loading
Prof Kenneth Crozier	FEIT	A/Prof Yaping Dan	Novel photodetectors based on nanomaterials: Devices and applications	Mid-infrared photodetectors based on atomically thin 2D materials
Dr Debnath Ghosal	MDHS	Prof Tao Dong	Investigating the molecular mechanism of effector secretion by the bacterial type IV secretion system	Structure and function of the type IV secretion system in bacterial pathogens
Prof Christopher Davey	MDHS	Prof Yiru Fang	Brain imaging predictors of rapid treatment response to low-dose ketamine in patients with severe depression	A cohort study of neuromodulation interventions for major depressive disorder
Prof Ivo Mueller	MDHS (WEHI)	Prof Xiao- Nong Zhou	Modelling the last mile to elimination: Learning from China's successes to inform malaria elimination in the Asia-Pacific	Monitoring the continual absence of local transmission on border regions of Yunnan Province using novel serological marks of exposure to P. vivax infections

Dr Amy Hahs	Science	Prof Junxiang Li	The influence of site-scale characteristics of urban greenspaces on biodiversity related to human health and wellbeing: A comparative study between Shanghai and Melbourne	The spatio-temporal pattern of urban green infrastructure and its associations with urban human mortality: A comparative study between Shanghai and Melbourne
Prof Michelle Watt	Science	Prof Dabing Zang	How does a root change its ability to grow through different layers of soil?	How do environmental factors regulate cytoskeleton and cell wall synthesis in rice seedlings?