



November 2023

IMPact@SUTD is a regular update featuring works by SUTD Faculty, Researchers, Students and Research Centres/Labs. We hope to create awareness of the Research by SUTD within the SUTD community and beyond. Share with us your SUTD works today so that we can include it in our next update.

Congratulations

Dr. Yow Wei Quin & PhD student Li Xiaoqian for publishing their article, ‘**Younger, not older, children trust an inaccurate human informant more than an inaccurate robot informant**’ in the journal, *Child Development*.¹ Scan the QR code to read the article.

¹ *Child Development* is a Q1 journal, ranked top 10% journal in JCI under the category, Psychology, Developmental.








Ride-hailing while female: Negotiating China's digital public sphere
Convergence

UTD Author: Cai Yanjun

“This paper explores how social media advances gender responsiveness in ride-hailing, echoing strands of feminism negotiated in China's digital public sphere. Interdisciplinary research is prevalent, but the path to publication can be challenging. This research received no grant support, not preventing us from believing what needs to be written.”

--- [Cai Yanjun](#)



To Help or Disturb: Introduction of Crowdsourced WiFi to 5G Networks
IEEE Transactions on Mobile Computing

SUTD Authors: Hao Shugang, Duan Lingjie

“This work appears to be the first to investigate how two heterogeneous networks of diverse network externalities co-exist from an economic perspective. We provide structural results on how a 5G operator adjusts his pricing after the introduction of the complementary crowdsourced Wi-Fi network, where all the users' payoff may decrease.”

--- [Hao Shugang](#)

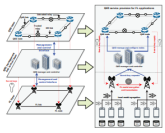


Entropy-driven liquid-phase exfoliation of non-Van-Der-Waals crystals into nanoplatelets
Flatchem

SUTD Authors: Wu Ping, Hashan N. Thenuwara, Hasanthi L. Senevirathna,

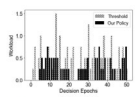
“The research delves into the surge of 2D material investigation post-graphene's breakthrough, focusing on advancements in converting non-van der Waals bonded 3D crystals into 2D nanoplatelets. It tackles predictive modelling challenges amid sparse data, offering significant implications for electronics, energy storage, and biomedical applications.”

--- [Wu Ping](#)




Adaptive Resource Allocation in Quantum Key Distribution (QKD) for Federated Learning
2023 International Conference on Computing, Networking And Communications

SUTD Author: Xiong Zehui



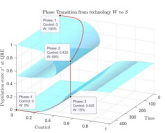
Admission Control in The Presence of Arrival Forecasts with Blocking-Based Policy Optimization
2022 Winter Simulation Conference

SUTD Author: Karthyek Murthy



AI-Enabled Condition Monitoring Framework for Indoor Mobile Cleaning Robots
Mathematics

SUTD Authors: Sathian Pookkuttath, Prabakaran Veerajagadheswar, Mohan Rajesh Elara



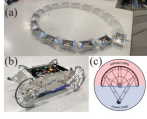
Catastrophe By Design in Population Games: A Mechanism to Destabilize Inefficient Locked-In Technologies
ACM Transactions on Economics and Computation

SUTD Authors: Joseph Sakos, Georgios Piliouras



Combining Retrospective Approximation with Importance Sampling for Optimising Conditional Value at Risk
2022 Winter Simulation Conference

SUTD Authors: Anand Deo, Karthyek Murthy, Tirtho Sarker



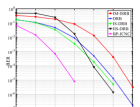
Contact Based Turning Gait of a Novel Legged-Wheeled Quadruped
2023 IEEE International Conference on Robotics and Automation

SUTD Authors: Alper Yeldan, Abhimanyu Arora, Soh Gim Song



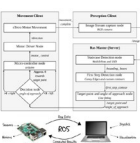
Green Infrastructure in Cities for The Achievement of The Un Sustainable Development Goals: A Systematic Review
Urban Ecosystems

SUTD Author: Alba Lombardia



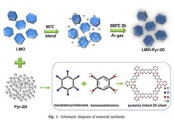
Improving LDPC-Coded PNC Decoders via Informed Dynamic Scheduling
IEEE Communications Letters

SUTD Author: Chen Pingping



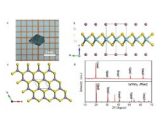
Staircase Recognition and Localization Using Convolutional Neural Network (CNN) for Cleaning Robot Application
Mathematics

SUTD Authors: Anirudh Krishna Lakshmanan, Mohan Rajesh Elara



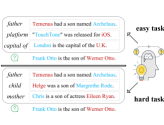
Tailored LMO@COF composite electrodes for direct electrochemical lithium extraction from high-temperature brines
Chemical Engineering Journal

SUTD Authors: Zhao Xiaoyu, Yang Hui Ying



The Coexistence of Superconductivity and Topological Order in Van der Waals InNbS2
Small

SUTD Authors: Feng Xukun, Zhang Zeying, Yang Shengyuan A.



Towards Hard Few-Shot Relation Classification
IEEE Transactions On Knowledge And Data Engineering

SUTD Author: Lu Wei

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