



October 2022

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.



How do airlines react to slot displacements? Evidence from a major airport
Journal of Air Transport Management

SUTD Author: Nuno Antunes Ribeiro

"In this article, we use logistic regression models to analyze the reactions of airlines to slot displacement decisions by coordinators and the subsequent need to change their flight schedules. Our results indicate that even a small displacement (of less than 30 min) can decrease substantially the odds of a flight being scheduled, but that these odds vary widely with the type of airline involved, the time of the day and several other factors."

--- [Nuno Antunes Ribeiro](#)



Participatory approaches to enact meaningful interconnectedness with the natural environment: a case study in Singapore
Cities & Health

SUTD Author: Chong Keng Hua and Kato Yohei

"Our study examined how nature placemaking programmes enhance the wellbeing of residents in Singapore. Through case study of the pioneer NGO, 'Ground-Up Initiative (GUI)', we found that more engagement with nature placemaking is associated with a higher psychological wellbeing, and that facilitators contribute to promoting interconnectedness with the natural environment."

--- [Chong Keng Hua](#)



Passenger-Centric Slot Allocation at Schedule-Coordinated Airports
Transportation Science

SUTD Author: Nuno Antunes Ribeiro

"This paper proposes an original passenger-centric approach to airport slot allocation to maximize available itineraries and minimize connecting times. Because of the uncertainty regarding passenger demand, the proposed approach combines predictive analytics to forecast passenger flows in flight networks from historical data and prescriptive analytics to optimize airport slot assignments in view of flight-centric and passenger-centric considerations."

--- [Nuno Antunes Ribeiro](#)

A systematic survey of attack detection and prevention in Connected and Autonomous Vehicles
Vehicular Communications

SUTD Author: Limbasiya Trupil; Teng Ko Zheng; Chattopadhyay Sudipta and Zhou Jianying

Design of Mutual-Information-Maximizing Quantized Shuffled Min-Sum Decoder for Rate-Compatible Quasi-Cyclic LDPC Codes
Electronics

SUTD Author: Kang Peng and Cai Kui

Designing high-efficiency metal and semimetal contacts to two-dimensional semiconductor gamma-GeSe
Applied Physics Letters

SUTD Author: Ang Yee Sin

Electric-field induced magnetic-anisotropy transformation to achieve spontaneous valley polarization
Journals of Materials Chemistry C

SUTD Author: Ang Yee Sin

Exploring the Potential Impact of Crowdshipping Using Public Transport in Singapore
Transportation Research Record

SUTD Author: Zhang Meijing and Cheah Lynette

Intelligent MIMO Detection Using Meta Learning
IEEE Wireless Communications Letters

SUTD Author: Xu, Jindan

Long-Short History of Gradients Is All You Need: Detecting Malicious and Unreliable Clients in Federated Learning
Computer Security

SUTD Author: Ngo Mao V.

Low Energy Switching of Phase Change Materials Using a 2D Thermal Boundary Layer
ACS Applied Materials & Interfaces

SUTD Author: Ning Jing, Wang Yunzheng and Teo Ting Yu

Mobility-Aware Cluster Federated Learning in Hierarchical Wireless Networks
IEEE Transactions on Wireless Communications

SUTD Author: Quek Tony Q. S

Plug-Mate: An IoT-based occupancy-driven plug load management system in smart buildings
Building & Environment

SUTD Author: Tekler Zeynep Duygu, Low Raymond, Yuen Chau and Blessing Lucienne

Spherical Indoor Coanda Effect Drone (SpICED): A Spherical Blimp sUAS for Safe Indoor Use
Drones

SUTD Author: Ying Hong Pheh, Win Shane Kyi Hla and Foong Shaohui

Urban Heat Island Mitigation: GIS-Based Analysis for a Tropical City Singapore
International Journal of Environmental Research and Public Health

SUTD Author: Teo Ya Hui, Makani Mohamed Akbar Bin Humayun, Wang Weimeng, Yap Jun Hong and Cheong Kang Hao

Contact us at library@sutd.edu.sg
An SUTD Library Service©2022