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Communicative strategies for building public confidence in data governance: Analyzing Singapore's COVID-19 contact-tracing initiatives
Big Data and Society

SUTD Author: Tan Kuo Siong Gordon and Sun Sun Lim

"This commentary argues that the Singapore government's communicative strategies surrounding TraceTogether represent missed opportunities to foster public confidence in social data governance. Moving forward, we suggest communicative solutions that foster trust, based on a sound understanding of public concerns that involve greater public engagement and solicitation of public feedback."

--- Tan Kuo Siong Gordon



Design change prediction based on social media sentiment analysis
AI EDAM

SUTD Author: Edwin Koh

"This work presents a method that uses social media sentiment analysis to identify opportunities for design change and the set of product components affected by the change. The method builds on natural language processing to determine change candidates from textual data and uses dependency modeling to reveal direct and indirect change propagation paths arising from the change candidates."

--- Edwin Koh



Continual Learning Electrical Conduction in Resistive-Switching-Memory Materials
Advanced Theory and Simulations

SUTD Author: Goh Shaoxiang, Wang Qiang, Wang Bo, Jiang Yu, Bajalovic Natasa and Desmond Loke

"Inspired by the human brain, a new type of 'continual learning' technique was developed to calculate the electrical current of digital memories in subsequent tests without the need to store data. This technique outperforms other continual learning models when applied on electric current dataset. A state-of-the-art performance was achieved after further adding modifications to the proposed technique."

--- Desmond Loke

A Novel Path Planning Strategy for a Cleaning Audit Robot Using Geometrical Features and Swarm Algorithms
Sensors

SUTD Author: Pathmakumar Thejus, Muthugala M. A. Viraj J., Samarakoon S. M. Bhagya P., Gomez Braulio Felix, Elara Mohan Rajesh

An electric power digital twin for cyber security testing, research and education
Computers & Electrical Engineering

SUTD Author: Nandha Kumar Kandasamy, Sarad Venugopalan, Tin Kit Wong and Nicholas Junming Leu

Biomimetic Vasculatures by 3D-Printed Porous Molds
Small

SUTD Author: Terry Ching, Jyothsna Vasudevan, Shu-Yung Chang, Anupama Sargur Ranganath, Javier G. Fernandez, Michinao Hashimoto

Double-Enhanced Core-Shell-Shell Sb₂S₃/Sb@TiO₂@C Nanorod Composites for Lithium- and Sodium-Ion Batteries
ACS Applied Materials & Interfaces

SUTD Author: Hui Ying Yang

Exemplars-Guided Empathetic Response Generation Controlled by the Elements of Human Communication
IEEE Access

SUTD Author: Majumder Navonil, Ghosal Deepanway, Poria Soujanya

Homogenizing spatially variable Young modulus using pseudo incremental energy method
Structural Safety

SUTD Author: Kok-Kwang Phoon

Monocular UAV Localisation With Deep Learning and Uncertainty Propagation
IEEE Robotics and Automation Letters

SUTD Author: Xueyan Oh, Ryan Lim, Leonard Loh; Chee How Tan, Shaohui Foong, U-Xuan Tan

Multiple Order Fourier Linear Combiner: Estimating Phase Shift for Real-Time Vibration Compensation
IEEE Sensors Journal

SUTD Author: Yichang He, Yunfeng Fan, U-Xuan Tan

Object-of-Interest Perception in a Reconfigurable Rolling-Crawling Robot
Sensors

SUTD Author: Archana Semwal, Melvin Ming Jun Lee, Daniela Sanchez, Sui Leng Teo, Bo Wang and Rajesh Elara Mohan

Predicted ferromagnetic monolayer CrSI with large vertical piezoelectric response: A first-principles study
Applied Physics Letters

SUTD Author: Yee-Sin Ang

The capacity constraint physarum solver
Journal of Computational Science

SUTD Author: Kang Hao Cheong

Toward a Comprehensive Domestic Dirt Dataset Curation for Cleaning Auditing Applications
Sensors

SUTD Author: Thejus Pathmakumar, Mohan Rajesh Elara, Shreenithy V Soundararajan and Balakrishnan Ramalingam

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