

August 2018

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

PROFESSOR RICKY L. K. ANG, HEAD, SCIENCE AND MATH, INTERIM HEAD OF PILLAR, (EPD) AND NG TENG FONG CHAIR PROFESSOR, SUTD-ZJU IDEA

ASSOCIATE PROFESSOR YANG HUI YING, EPD
DR ANG YEE SIN, SCIENCE AND MATH & EPD

In Achieving Editors' Suggestion* for their paper, **'Universal Scaling Laws of Schottky Heterostructures Based on Two-Dimensional Materials'**, by the editors of Physical Review Letters.

The same paper was also commented and featured in Physics, **'Synopsis: Universal Scaling Laws for 2D Schottky Diodes'**.

* A notable achievement as only about 1 in 6 Letters published in the prestigious physics journal, Physical Review Letters, will be highlighted as Editors' Suggestion due to its importance, innovation and broad appeal.



Binary signaling design for visible light communication: a deep learning framework
Optics Express

SUTD Author: Hoon Lee and Tony Q. S. Quek

"Optimizing on-off keying based dimmable visible light communication (VLC) transceiver requires to solve combinatorial design problems for the constant weight codebook over signal-dependent noise channels. This paper addresses this challenge by employing an autoencoder approach to learn neural networks with the binary latent output for the VLC encoder-decoder pair.."

--- Hoon Lee and Tony Q. S. Quek



(Guanidine)copper Complex-Catalyzed Enantioselective Dynamic Kinetic Allylic Alkynylation under Biphasic Condition
Journal of American Chemical Society

SUTD Author: Siu Min Tan, Davin Tan and Richmond Lee

"Racemic allylic bromides are reacted with alkynes in the presence of a chiral copper-guanidine catalyst to generate highly important chiral chemical products. Experimental and theoretical studies reveal that the reaction mechanism to be via dynamic kinetic resolution of the allylic bromide and subsequent nucleophilic conjugate substitution to install an alkyne."

--- Siu Min Tan and Richmond Lee



Mohsin Hamid's War on Error: The Reluctant Fundamentalist as a Post-Truth Novel
CounterText

SUTD Author: Nazry Bahrawi

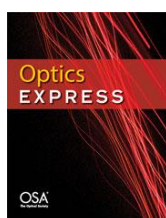
"Contemporary political discourse denotes 'post-truth' as a rhetorical technique for garnering popular support. This article proposes an alternative interpretation of 'post-truth' as a challenge to dominant systems of knowledge expressed through literary narratives. It demonstrates its workings in Mohsin Hamid's *The Reluctant Fundamentalist* (2007) to counter truisms fuelling 9/11 Islamophobia."

--- Nazry Bahrawi



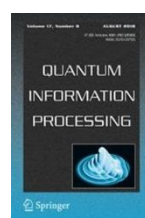
Assuring BetterTimes
Journal of Computer Security

SUTD Author: Ochoa Martín



Binary signaling design for visible light communication: a deep learning framework
Optics Express

SUTD Author: Hoon Lee and Tony Q. S. Quek



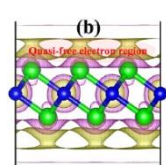
Conditional displacement interaction in transversal direction from the quantum Rabi model
Quantum Information Processing

SUTD Author: Chunfeng Wu



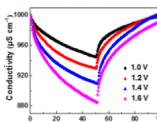
Design of sTetro: A Modular, Reconfigurable, and Autonomous Staircase Cleaning Robot
Journal of Sensors

SUTD Author: Muhammad Ilyas, Shi Yuyao, Rajesh Elara Mohan, Manojkumar Devarassu and Manivannan Kalimuthu



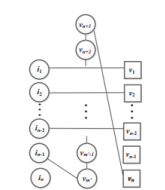
Electron-donor doping enhanced Li storage in electride Ca₂N monolayer: a first-principles study
Journal of Physics-Condensed Matter

SUTD Author: Shengyuan A Yang



High-Performance Membrane Capacitive Deionization Based on Metal-Organic Framework-Derived Hierarchical Carbon Structures
ACS Omega

SUTD Author: Meng Ding and Hui Ying Yang



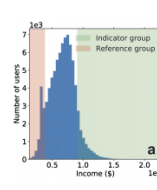
Minimal qubit resources for the realization of measurement-based quantum computation
Physical Review A

SUTD Author: Monireh Houshmand and Joseph F. Fitzsimons



No Body to Kick, No Soul to Damn: Responsibility and Accountability for the Financial Crisis (2007-2010)
Journal of Business Ethics

SUTD Author: Olivia Nicol



The canary in the city: indicator groups as predictors of local rent increases
EPJ Data Science

SUTD Author: Ate Poorthuis

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