

February 2021

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!

Assistant Professor Georgios Piliouras
(Engineering Systems and Design Pillar)

Dr Stefanos Leonardos
(Engineering Systems and Design Pillar)



For being awarded the Best Paper Award at the 35th AAAI Conference on Artificial Intelligence* for their paper *“Exploration-Exploitation in Multi-Agent Learning: Catastrophe Theory Meets Game Theory”*.



*AAAI is one of the most recognized and impactful conferences in the area of Artificial Intelligence.



Creativity, Entrepreneurship, Innovation, Leadership and Professional Motivations: Comparing Design Students in Different Levels of Undergraduate Education
IEEE

SUTD Author: Nilanjan Raghunath, Georgios Koronis and Arlindo Silva

“The purpose of this study is to gain a better understanding of how design creativity, innovativeness and entrepreneurship motivations change during the undergraduate academic years in students of the same institution.”

--- Nilanjan Raghunath, Georgios Koronis and Arlindo Silva



Multi-materials fused filament printing with embedded highly conductive suspended structures for compressive sensing
Additive Manufacturing

SUTD Author: Tan Jeck Chuang and Low Hong Yee

“Multi-material fused filament printing of conductive and dielectric materials has tremendous potential in the co-fabrication of embedded electronics, allowing for increasing freedom in part design and functionality. This work reports a class of metal-polymer composite with high electrical conductivity and mechanical stability, through which fused filament printing of suspended 3-D electrically conductive structure was demonstrated.”

--- Low Hong Yee



Overcoming range limits
Nature Energy

SUTD Author: Cheah Lynette

“This article is a commentary on the paper ‘Personal vehicle electrification and charging solutions for high-energy days’ whose first author is Wei Wei who is SUTD ESD alumni student from the pioneer batch.”

--- Cheah Lynette

3D printing of highly stretchable hydrogel with diverse UV curable polymers
Science Advances

SUTD Author: Yuan-Fang Zhang, Honggeng Li and Chao Yuan

Challenges when identifying migration from geo-located Twitter data
EPJ Data Science

SUTD Author: Ate Poorthuis

Long-Lasting Superhydrophilic Polymers via Multiscale Topographies
ACS Applied Polymer Materials

SUTD Author: Jarrett Jonathan Dumond and Hong Yee Low

Magnon relaxation time in ferromagnetic Cr₂Ge₂Te₆ monolayer governed by magnon-phonon interaction
Applied Physics Letters

SUTD Author: Xiansong Xu

Multisource basic probability assignment fusion based on information quality
International Journal of Intelligent Systems

SUTD Author: Kang Hao Cheong

On Data Augmentation for GAN Training
IEEE Transactions on Image Processing

SUTD Author: Ngoc-Trung Tran, Viet-Hung Tran, Ngoc-Bao Nguyen, Trung-Kien Nguyen and Ngai-Man Cheung

Physics of electron emission and injection in two-dimensional materials: Theory and simulation
Infomat

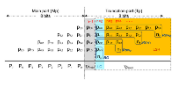
SUTD Author: Yee Sin Ang, Liemao Cao and Lay Kee Ang

Recent Advances in Heterostructure Engineering for Lithium-Sulfur Batteries
Advanced Energy Materials

SUTD Author: Yew Von Lim and Hui Ying Yang

Scheme for automatic differentiation of complex loss functions with applications in quantum physics
Physical Review E

SUTD Author: Dario Poletti



Simple and hardware-efficient row-based direct-mapping estimators in fixed-width modified Booth multipliers

International Journal of Circuit Theory and Applications

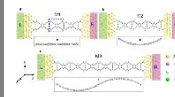
SUTD Author: Jun Yang



State-crossing from a Locally Excited to an Electron Transfer State(SLEET) Model Rationalizing the Aggregation-induced Emission Mechanism of (Bi)piperidylanthracens

Chemical Research in Chinese Universities

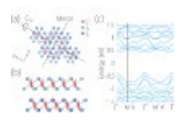
SUTD Author: Weijie Chi, Chao Wang and Xiaogang Liu



Strain Investigation on Spin-Dependent Transport Properties of gamma-Graphyne Nanoribbon Between Gold Electrodes

Nanoscale Research Letters

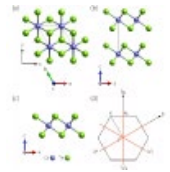
SUTD Author: Liemao Cao



Thermoelectric generation of orbital magnetization in metals

Physical Review B

SUTD Author: Huiying Liu, Jianzhou Zhao and Shengyuan A. Yang

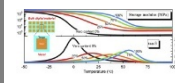


Tunable anomalous Hall transport in bulk and two-dimensional 1T-CrTe2: A first-principles study

Physical Review B

SUTD Author: Si Li, Shan-Shan Wang, Bo Tai, Weikang Wu and Shengyuan A. Yang

Contact us at library@sutd.edu.sg
An SUTD Library Service©2021



Voxel design of additively manufactured digital material with customized thermomechanical properties

Materials & Design

SUTD Author: Chao Yuan, Fangfang Wang and David W. Rosen