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 Leonidas
(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.”

---

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

Additive Manufacturing

SUTD Author: Tan Jack 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.”

---

**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.”

---

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

Science Advances

SUTD Author: Yuan-Fang Zyang, Honggeng Li and Chao Yua

---

**Magnon relaxation time in ferromagnetic CrGe2Te6 monolayer governed by magnon-phonon interaction**

Applied Physics Letters

SUTD Author: Xiansong Xu

---

**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

---

**Challenges when identifying migration from geo-located Twitter data**

EPJ Data Science

SUTD Author: Ale Poorthuis

---

**Multisource basic probability assignment fusion based on information quality**

International Journal of Intelligent Systems

SUTD Author: Xiang Hou Cheong

---

**On Data Augmentation for GAN Training**

IEEE Transactions on Image Processing

SUTD Author: Yew Von Lim and Hui Ying Yang

---

**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 Polesel
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

Thermoelectric generation of orbital magnetization in metals
Physical Review B
SUTD Author: Huiying Liu, Jianzhou Zhao and Shengyuan A. Yang

Strain Investigation on Spin-Dependent Transport Properties of gamma-Graphyne Nanoribbon Between Gold Electrodes
Nanoscale Research Letters
SUTD Author: Liemao Cao

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

Voxel design of additively manufactured digital material with customized thermomechanical properties
Materials & Design
SUTD Author: Huiying Liu, Jianzhou Zhao and Shengyuan A. Yang

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