

May 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.



Computational screening-LCA tools for early design stages

International Journal of Architectural Computing

SUTD Author: Michael Budig, Oliver Heckmann, Markus Hudert, Amanda Qi Boon Ng, Zack Xuereb Conti, Clement Jun Hao Lork

"This paper discusses an evaluation workflow for the Global Warming Potential (GWP) in buildings, which assesses the environmental impacts of different design variants. The presented method is illustrated through a case study and facilitates the comparison of alternative structural systems and materials. It calculates the GWP and illustrates it in an intuitive visualization."

--- Michael Budig



Older adults' views of the connections between neighbourhood built environment and health in Singapore

Journal of Population Ageing

SUTD Author: Md Rashed Bhuyan and Belinda Yuen

"...perceived connection between place qualities and different domains of health is not necessarily linear. While the built environment could encourage or discourage older people's outdoor activity, outdoor activity is in turn shaped by individual desire and ability to integrate such activity into daily routines as moderated by their health condition."

--- Md Rashed Bhuyan



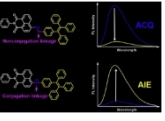
Technological Adoption as a Social Process in Food Centers in Singapore

Science, Technology and Society

SUTD Author: Nilanjan Raghunath

"Technological advancements in the digital economy have affected work cultures and labour displacements. Technological adoption is a highly social process, which involves resistance and failure to adapt by individuals in the midst of it...Through ethnographic accounts of five field sites, this article aims to examine the effects of technology on work cultures in food centres in Singapore."

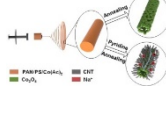
--- Nilanjan Raghunath



Aggregation-induced emission or aggregation-caused quenching? Impact of covalent bridge between tetraphenylethene and naphthalimide

Chinese Chemical Letters

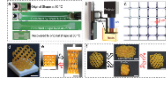
SUTD Author: Weijie Chi, Chao Wang, Xiaogang Liu



Hierarchical Co₃O₄/CNT decorated electrospun hollow nanofiber for efficient hybrid capacitive deionization

Separation and Purification Technology

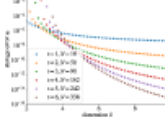
SUTD Author: Lu Guo, Jintao Zhang, Meng Ding, Sareh Vafakhah, Wang Zhang, PabloValdivia y Alvarado, and Hui Ying Yang



Mechanically Robust and UV-Curable Shape-Memory Polymers for Digital Light Processing Based 4D Printing

Advanced Materials

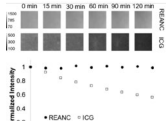
SUTD Author: Yuan-Fang Zhang



Quantum storage in quantum ferromagnets

Physical Review B

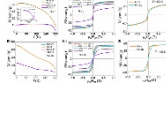
SUTD Author: Yingkai Ouyang



Short-Wave Infrared Emitting Nanocomposites for Fluorescence-Guided Surgery

IEEE Journal of Selected Topics in Quantum Electronics

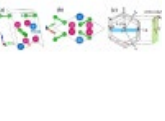
SUTD Author: Xinyu Zhao, Shuqing He, and Mei Chee Tan



Significant perpendicular magnetic anisotropy in room-temperature layered ferromagnet of Cr-intercalated CrTe₂

2D Materials

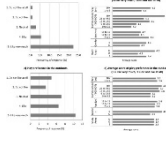
SUTD Author: Si Li and Shengyuan A Yang



Topological properties of noncentrosymmetric superconductors Tl₂B₂ (T=Nb, Ta)

Physical Review B

SUTD Author: Shengyuan A Yang



Geographies of outdoor play in Dhaka: An explorative study on children's location preference, usage pattern and accessibility range of play spaces

Children's Geographies

SUTD Author: Md Rashed Bhuyan

"The most beautiful thing we can experience is the mysterious. It is the source of all true art and science."

--- Albert Einstein

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