

August 2020

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!



Dr Nachamma Sockalingam
for being awarded the Advance Higher Education - Principal Fellowship*

**The Advance Higher Education Fellowship recognizes personal and institutional commitment to excellence in learning and teaching in global higher education and offers professional recognition in the categories of Associate Fellow, Fellow, Senior Fellow and Principal Fellow. Principal Fellowship recognizes deep and rich professional experience with sustained and effective record of impact at a strategic level in relation to teaching and learning at the institutional, national and international settings.*

Dr Nachamma Sockalingam
Program Director
Learning Sciences Lab
Office of Undergraduate Studies

CONGRATULATIONS!

Dr Oka Kurniawan, Dr Cheah Chin Wei, Dr Norman Lee Tiong Seng and Assistant Professor Nilanjan Raghunath for being awarded the Advance Higher Education – Fellowship*

**The Advance Higher Education Fellowship recognizes personal and institutional commitment to excellence in learning and teaching in global higher education and offers professional recognition in the categories of Associate Fellow, Fellow, Senior Fellow and Principal Fellow. Fellowship recognizes effective, substantive and high-quality teaching that support student learning and demonstrates a broad understanding of effective teaching and learning approaches which contribute to significant student learning and excellence in teaching.*



Dr Oka Kurniawan (Senior Lecturer)
Information Systems Technology & Design



Dr Cheah Chin Wei (Senior Lecturer)
Engineering Product Development
Science, Mathematics & Technology



Dr Norman Lee Tiong Seng (Senior Lecturer)
Information Systems Technology & Design



Assistant Professor Nilanjan Raghunath
Humanities, Arts and Social Sciences



Impact-Resistant and Tough Helicoidally Aligned Ribbon Reinforced Composites with Tunable Mechanical Properties via Integrated Additive Manufacturing Methodologies
ACS Applied Polymer Materials

SUTD Author: Komal Agarwal, Rahul Sahay, and Arief S. Budiman

"NFES additive manufacturing aids construction of complex and tough helicoidal composites. Key features alteration (fiber size, angular orientation and interfacial adhesion) enables material design for protective clothing and wearable sensors. Our work presents key design guidelines for achieving next-generation strong, tough and impact -resistant materials."

--- Komal Agarwal



The Post-politics of Environmentalism in Singapore in Jobin
Environmental Movement in Southeast Asia

SUTD Author: Harvey Neo

"This chapter traces the development of environmental activism in the past five decades in Singapore. It explains the evolution of non-governmental organizations' engagement with the government which has seen periods of suppression, explicit confrontations to a phase of accommodation today. The chapter contributes to a volume of essays that focuses on the environment movements in Southeast Asia."

--- Harvey Neo



Full Employment and the Cryptocurrency Economy
Tradition and Discovery: The Polanyi Society Periodical

SUTD Author: Nilanjan Raghunath

"Cryptocurrencies present a disruption to financial institutions, investments, and markets. I claim that Michael Polanyi's theories about employment, money, trade, and his overarching sociotechnical vision of society and the economy can help us understand the current labour market challenges and solutions in view of the digital economy."

--- Nilanjan Raghunath



A Control Scheme for Smooth Transition in Physical Human-Robot-Environment Between Two Modes: Augmentation and Autonomous
IEEE Robotics and Automation Letters

SUTD Author: Hsieh-Yu Li and U-Xuan Tan



A Method of Multiple Dynamic Objects Identification and Localization Based on Laser and RFID Sensors

SUTD Author: Ran Liu



A novel strategy for multi-part production in additive manufacturing
International Journal of Advanced Manufacturing Technology

SUTD Author: Jingchao Jiang, Yi Xiong, Guoying Dong, and Samyeon Kim



Biocompatibility of Biomaterials for Tissue Regeneration or Replacement
Biotechnology Journal

SUTD Author: Hemant Kumar Raut and Rupambika Das



Challenges and prospects for negawatt trading in light of recent technological developments
Nature Energy

SUTD Author: Chau Yuen



Ciphertext-policy attribute-based proxy re-encryption via constrained PRFs
Science China-Information Sciences

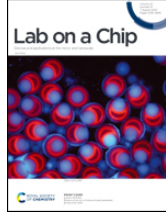
SUTD Author: Zengpeng Li and Vishal Sharma



Computational screening-LCA tools for early design stages

International Journal of Architectural Computing

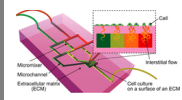
SUTD Author: Michael Budig, Oliver Heckmann, Markus Hudert, Amanda Qi Boon Ng, Zack Xuereb Conti, and Clement Jun Hao Lork



Diffraction-based acoustic manipulation in microchannels enables continuous particle and bacteria focusing

Lab on a Chip

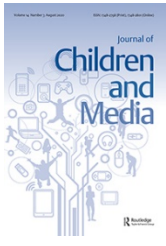
SUTD Author: Ye Ai



ECM-based microfluidic gradient generator for tunable surface environment by interstitial flow

Biomicrofluidics

SUTD Author: Wei Huang Goh, Rahul Karyappa, and Michinao Hashimoto



Parent-child Role Reversal in ICT Domestication: Media Brokering Activities and Emotional Labours of Chinese 'Study Mothers' in Singapore

Journal of Children & Media

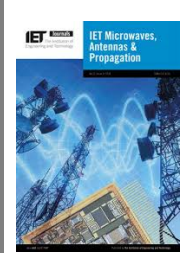
SUTD Author: Yang Wang



Practices of isolation: The shaping of project autonomy in innovation projects

International Journal of Project Management

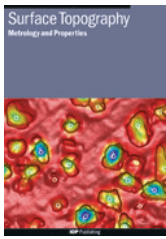
SUTD Author: Thijs Willems



Robustness-oriented P-band phased array radar front-end with high phase and gain resolution in 0.18 μ m BiCMOS

IET Microwaves Antennas & Propagation

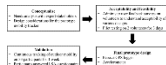
SUTD Author: Jer-Ming Chen and Kiat Seng Yeo



Superhydrophobic surfaces with embedded protective sawtooth ring microstructures

Surface Topography: Metrology and Properties

SUTD Author: Anupama Ranganath and Hong Yee Low



The development and validation of a prototype mobility tracker for assessing the life space mobility and activity participation of older adults

BMC Geriatrics

SUTD Author: Belinda Yuen

Everything is theoretically impossible, until it is done.
---Robert A. Heinlein

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