

November 2017

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!

Associate Professor Tony Quek

Honored to rank among **@Clarivate's top 1%** of researchers for most cited documents in the field of **Computer Science #HighlyCited2017** and proud to be elevated to **IEEE Fellow** effective 1st January 2018, for his contribution in the field of **heterogeneous and wireless networks**.



Modelling the dynamics of complex early design processes: an agent-based approach
Design Science

SUTD Author: Arlindo Silva

"The paper argues that current design modelling approaches do not capture conveniently the dynamics of complex early design processes (in particular uncertainty, concurrency, collaborative iteration, and adaptive decision-making) and proposes a multi-agent system modelling approach instead. Its applicability is demonstrated through an investigation into varying levels of externally-driven requirements changes."

--- Arlindo Silva



Quantitative mass spectrometry of human reticulocytes reveal proteome-wide modifications during maturation
British Journal of Haematology

SUTD Authors: Trang T. T. Chu, Ameya Sinha, Renugah Naidu, Rupambika Das, and Rajesh Chandramohanadas

"We used quantitative proteomics and nano-structural imaging and profiled ~1800 proteins from human red blood cells. Further, proteome-wide changes that account for transition in shape and deformability during cell maturation were discovered. Our results can now explain molecular basis of red blood cell diseases where maturation is impaired."

--- Rajesh Chandramohanadas



Youth workers' use of Facebook for mediated pastoralism with juvenile delinquents and youths-at-risk
Children and Youth Services Review

SUTD Author: Sun Sun Lim

"Building on Foucault's concept of pastoralism, I argue that social workers can exploit social media technologies to keep watch over juvenile delinquents and youths-at-risk, through a process of mediated pastoralism. Although their efforts to monitor their clients may approximate surveillance, it is motivated by an ethic of care and professionalism."

---Sun Sun Lim

Broadband silicon polarization beam splitter with a high extinction ratio using a triple-bent-waveguide directional coupler
Optics Letters

SUTD Authors: Ezgi Sahin, G. F. R. Chen, and D. T. H. Tan

Haptics of in-car radio buttons and its relationship with engineering parameters
International Journal of Industrial Ergonomics

SUTD Author: Arlindo Silva

Homesickness: Culture, Contagion and National Transformation in Modern China
Asian Journal of Social Science

SUTD Author: Lyle Fearnley

Investigating the Effects of Robot-Assisted Therapy among Children with Autism Spectrum Disorder using Bio-markers
IOP Conf. Series: Materials Science and Engineering

SUTD Author: Mohan Rajesh Elara

Kretschmann-Raether configuration: Revision of the theory of resonant interaction
Physical Review B

SUTD Author: Mei Er Pam

On the correlation of absorption cross-section with plasmonic color generation
Optics Express

SUTD Authors: Ray Jia Hong Ng and Joel K. W. Yang

Predicting the flexural properties of woven flax reinforced epoxy composites using design of experiments
Materials Today Communications

SUTD Author: Arlindo Silva

Sociopsychological and physiological effects of a robot-assisted therapy for children with autism
International Journal of Advanced Robotic Systems

SUTD Author: Mohan Rajesh Elara

The novelty 'sweet spot' of invention
Design Science

SUTD Authors: Yuejun He and Jianxi Luo