

Weekly Discovery

We SHARE to inspire and ignite ideas!

18 March 2019 - 22 March 2019

The Library publishes **9 alerts** focusing on Topics relevant to **growth and research areas** to SUTD.

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Artificial Intelligence & Data Science	Aviation	Cities
HealthCare	Robotics & Automation	Design & Innovation
Cybersecurity	Digital Design & Fabrication	Advanced Manufacturing

3D PRINTING
A New Ally for Preserving Cultural Heritage: Realistic 3D Printed Models



"Extensive destruction has taken its toll on history, but for the last few years, some archaeological sites that have been looted, ravaged and eroded are getting a second chance thanks to 3D Printing."

Source: [3DPrint.com](#) (18 March 2019)

ARCHITECTURE
The New Mall: 21st Century Iterations of Retail Architecture



"As Hudson Yards launches its shops and restaurants complex, we explore how architecture and design are shaping global retail experiences, and how the 'mall' has taken on a whole new identity."

Source: [Wallpaper](#) (16 March 2019)

ARTIFICIAL INTELLIGENCE
Artificial Intelligence to Monitor Pilot Drowsiness



"A safety kit, comprising of smart cameras and wearable electronics, has been developed that will enable real-time detection of signs of drowsiness."

Source: [New Electronics](#) (18 March 2019)

BUSINESS DEVELOPMENT
Southeast Asia Expecting up to 10 Percent Business Growth in 2019



"The world is looking at Southeast Asia as a destination for investment, source of future growth and inspiration for innovation ... While companies feel threatened by skills gaps, confidence is driven by technology." Also read the [full report](#).

Source: [Euromonitor International](#) (17 March 2019)

COMPUTATIONAL CREATIVITY
Science and Culture: Computers Take Art in New Directions, Challenging the Meaning of "Creativity"



"The rest had been generated by new artificial intelligence (AI) algorithms, trained on more than 80,000 paintings from the past few hundred years, that had been developed to generate new visuals in a variety of styles."

Source: [PNAS](#) (12 March 2019)

CONTEMPORARY ARCHITECTURE
Jean Nouvel's National Museum of Qatar to Open on March 28th



"The architectural concept for the scheme has been inspired by the desert rose, and seeks to create a dialogue between the fluid, contemporary architectural form of the museum, and the historic objects it will contain."

Source: [Arch Daily](#) (18 March 2019)

CYBERSECURITY
5 Ways to Properly Secure New Technology



Source: PYMNTS

"Automating security and system standards eliminates the potential for human error."

Source: [Tech Republic](#) (18 March 2019)

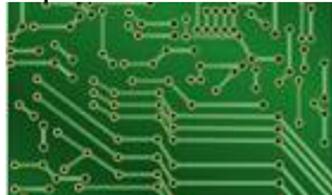
MANUFACTURING
How Digital Fulfillment Is Changing Manufacturing



"Manufacturers can harness digital fulfillment to deliver real customer choice, realign decision making with customer needs, and realize the flexibility and insight that digitalization makes possible."

Source: [Harvard Business Review](#) (15 March 2019)

MATERIALS SCIENCE
Researchers Discover New Material to Help Power Electronics



"A research team at The Ohio State University has discovered a way to simplify how electronic devices use those electrons by using a material that can serve dual roles in electronics." Read more in [Nature Materials](#).

Source: [Phys.org](#) (18 March 2019)

MEDICAL DEVICE
Eoflow's Wearable Artificial Pancreas System Recognized in US



"The device integrates a continuous glucose sensor and an insulin pump in one small wearable module and autonomously controls insulin infusion ... with little input from the patient."

Source: [Korea Biomedical Review](#) (15 March 2019)

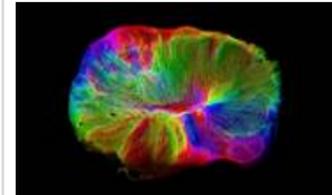
MEDICAL SCIENCE
Antifungal Drug May Bring Relief to CF Patients



"Cystic fibrosis is a genetic disorder. New research may help change that. Scientists determined that amphotericin, a common antifungal medication that is already on the market, could help CF patients that don't respond to current therapeutics."

Source: [Labroots](#) (18 March 2019)

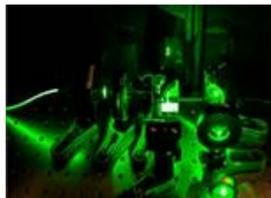
NEUROSCIENCE
Scientists Grow 'Mini-Brain on the Move' That Can Contract Muscle



"Cambridge researchers grew 'organoid' that spontaneously connected to spinal cord."

Source: [The Guardian](#) (18 March 2019)

QUANTUM COMPUTING
Quantum Sensing Method Measures Minuscule Magnetic Fields



"MIT researchers find a new way to make nanoscale measurements of fields in more than one dimension."

Source: [MIT News](#) (15 March 2019)

ROBOTICS
This Robot Gripper Looks Like a Wilted Flower, but It Can Lift 100 Times Its Own Weight



"As gas is pumped in and out of the gripper's airtight enclosure, the whole device opens and closes like a flower. This allows the device to pick up delicate objects without harming them, while still maintaining a strong enough grip to lift 100 times its own weight."

Source: [The Verge](#) (14 March 2019)

WATER HARVESTING
Solar-Powered Hydrogel Collects Clean Water Out of Thin Air



"Using solar power and what they refer to 'super sponges,' a team of engineers at the University of Texas at Austin have developed a neat, and potentially life-saving, magic trick: pulling water out of thin air."

Source: [Popular Mechanics](#) (14 March 2019)

WEARABLES
A Peek into the Future of Wearables



"Mind reading glasses, goggles that erase chronic pain, a wristband that can hear what the wearer can't, and more futuristic wearables are on the horizon."

Source: [IEEE Spectrum](#) (14 March 2019)

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