

Weekly Discovery

We SHARE to inspire and ignite ideas!

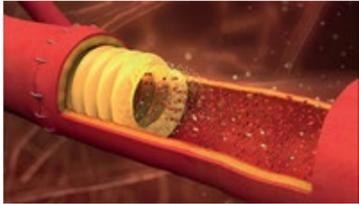
28 January 2019 - 1 February 2019

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 3D-Printed Sugar-Based Stent to Aid Vascular Surgery



"Researchers...have developed a 3D-printed stent that can aid surgeons in stitching small arteries together...The device is 3D-printed using a sugar-based material, meaning that it dissolves and disappears within minutes after the artery has been sealed."

Source: [Medgadget](#) (24 January 2019)

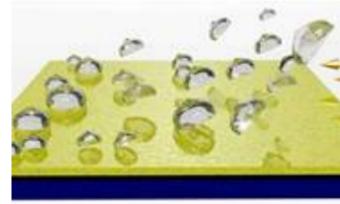
3D PRINTING Current advances and future perspectives of 3D printing natural-derived biopolymers



"Development of eco-friendly natural-derived biopolymers for 3D printing technologies and their promising application in different areas are of huge academic, and environmental interests."

Source: [Carbohydrate Polymers](#) (Mar 2019)

BLOCKCHAIN Top 5 Blockchain-Related Stocks For 2019



"To help navigate this new sector of investing, Reality Shares created a proprietary Blockchain Score™ methodology which seeks to identify progressive companies on the forefront of blockchain technology."

Source: [Forbes](#) (24 January 2019)

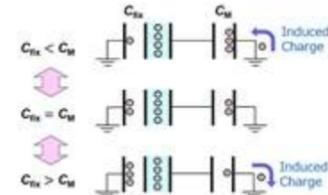
DIGITAL ECONOMY Which Countries Are Leading the Data Economy?



"While the U.S. scores well on all three criteria – and this might seem counter-intuitive to prevailing wisdom – China operates with a handicap if global accessibility of the data is considered essential for creating successful AI applications in the future."

Source: [Harvard Business Review](#) (24 January 2019)

ENERGY Putting that Free Energy around you to good use with Minuscule Energy Harvesters



"Scientists at Tokyo Tech developed a micro-electromechanical energy harvester that allows for more flexibility in design, which is crucial for future IoT applications."

Source: [Tokyo Institute of Technology](#) (28 January 2019)

ENTREPRENEURSHIP World's Most Admired Companies



"Which companies are most respected? Some 3,750 executives, analysts, directors, and experts voted—and here are the results."

Source: [Fortune](#) (24 January 2019)

GRAPHENE Binder-free Graphene Oxide Doughs



"Here, we report a highly cohesive dough state of GO with tens of weight percent loading in water without binder-like additives. The dough state can be diluted to obtain gels or dispersions, and dried to yield hard solids."

Source: [Nature Communications](#) (24 January 2019)

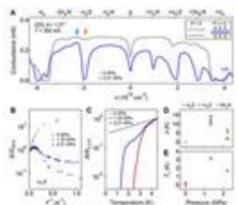
HEALTH TECH You can now buy an actual hospital room on Amazon



"You can buy almost everything on Amazon. And that includes, as of Thursday, a "smart" hospital room in a box."

Source: [CNBC](#) (24 January 2019)

MATERIALS SCIENCE Unlocking Graphene's Superconducting Powers with a twist and a squeeze



"Graphene has been heralded as a wonder material. Scientists have discovered a new method to manipulate the electrical conductivity of this game-changing material, the strongest known, with applications ranging from nano-electronic devices to clean energy."

Source: [Science Daily](#) (24 January 2019)

MEGATRENDS Understanding the Five Drivers Shaping Megatrends



"Slow labour productivity growth is a major factor limiting long-term growth potential in these regions. If sustained, it could hinder the progress in living standards, threaten the sustainability of private and public finances, and increase vulnerability to future shocks."

Source: [Euromonitor](#) (January 2019)

OPTICS A Simple Camera and an Algorithm Let You See around Corners



"By tracing light rays from the edges of the shadows, Goyal's team could map what parts of the screen would illuminate what parts of the matte surface...they created algorithms that worked backward from images of the matte surface"

Source: [Scientific American](#) (23 January 2019)

POINT-OF-CARE HEALTH DEVICES Magneto-Nanosensor Smartphone Platform For The Detection Of HIV And Leukocytosis At Point-Of-Care



"The advent of personalized medicine has brought an increased interest in personal health among general consumers. As a result, there is a great need for user-centric point-of-care (POC) health devices."

Source: [Nanomedicine](#) (Feb 2019)

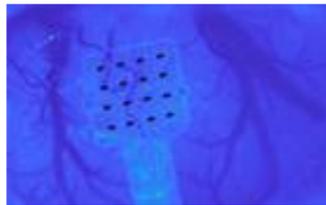
ROBOTICS Plant-Inspired Robot Mimics Osmosis For Movement



"Italian researchers have designed a soft robot that mimics the tendrils of a plant and has a movement system inspired by osmosis."

Source: [The Engineer](#) (25 January 2019)

SENSORS Graphene Sensors Can Hear Your Brain Whisper



"A newly developed graphene-based implant can record electrical activity in the brain at extremely low frequencies and over large areas, unlocking the wealth of information found below 0.1 Hz." Read more in [Nature Materials](#).

Source: [Graphene Flagship](#) (24 Jan 2019)

TECHNOLOGY TRENDS Top Ten Strategic Technology Trends for 2019



Watch this free 60 minute Trends & Predictions webinar on-demand.

Discussion Topics:

"In this complimentary webinar, Gartner expert Nick Jones reveals the strategic technology trends that IT cannot afford to ignore."

Source: [Gartner](#) (January 2019)

WEARABLES An Ultra-Shapeable, Smart Sensing Platform Based on a Multimodal Ferrofluid-Infused Surface



"Ferrofluid-based triboelectric nanogenerator (FO - TENG), represents a smart multifaceted sensing platform that has a unique capacity in diverse applications including hazard preventive wearables, and remote healthcare monitoring."

Source: [Wiley Online Library](#) (28 January 2019)