

# Weekly Discovery

We SHARE to inspire and ignite ideas!

11 March 2019 - 15 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

**5G**  
**Making 5G Pay: Monetizing the Impending Revolution in Communications Infrastructure**



"The next generation of cellular mobile communications technology has arrived. 5G, which is set to succeed the 4G standard over the next few years, offers an exponential improvement in functionality over 4G - it is 100 times faster and has 1,000 times more capacity. The results will be mobile networks that offer far higher capacity and reliability, much lower latency, reduced energy usage, and massive connectivity for devices."  
 Source: [PwC](#) (20 February 2019)

**ACOUSTICS**  
**Scientists Have Discovered a Shape That Blocks All Sound—Even Your Co-Workers**



"Offices and tiny apartments could be transformed by the work of Boston University researchers, who recently unveiled an 'acoustic metamaterial' that blocks all sound."  
 Read more from the journal [article](#).  
 Source: [Fast Company](#) (11 March 2019)

**ARCHITECTURE**  
**The City in the Air by Arata Isozaki**



"Arata Isozaki, the Japanese architect and winner of the Pritzker Prize 2019, is not only renowned for his fruitful portfolio of works built all over the world (more than a hundred) but also for his continuous input to the theory of urbanism, including texts and proposals."  
 Source: [Arch Daily](#) (8 March 2019)

**ARCHITECTURE**  
**This Is How China Was Able to Build the World's First Subterranean Hotel**



"The InterContinental Shanghai Wonderland is built 16 stories below ground level - into a flooded quarry."  
 Source: [Architectural Digest](#) (7 March 2019)

**BIOMEDICAL ENGINEERING**  
**A Skin Bioprinter May Soon Heal Wounds Rapidly**



"Scientists at the Wake Forest Institute for Regenerative Medicine (WFIRM) have already created the world's first mobile skin bioprinter, that can print bilayered 'skin' directly into wounds."  
 Read more at [Scientific Reports](#).  
 Source: [Labroots](#) (10 March 2019)

**BUSINESS INTELLIGENCE**  
**10 Business Intelligence Trends: From Analytics Adoption to Explainable AI and Converging BI Platforms**



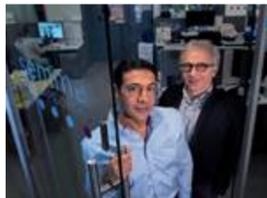
"Tableau's 2019 Business Intelligence Trends report outlines 10 of the top advancements in BI technology and how the discipline is being changed by floods of new data and a more distributed mandate to process, understand and make use of it."  
 Also read the [full report](#).  
 Source: [Spend Matters](#) (6 March 2019)

**ENERGY HARVESTING**  
**Movie Technology Inspires Wearable Liquid Unit That Aims to Harvest Energy**



"Purdue University team invented a liquid-metal-inclusion based triboelectric nanogenerator, called LMI-TENG. Triboelectric energy harvesting transducers devices which help conserve mechanical energy and turn it into power."  
 Source: [Phys.org](#) (12 March 2019)

**ENTREPRENEURSHIP**  
**Accelerating Innovation**



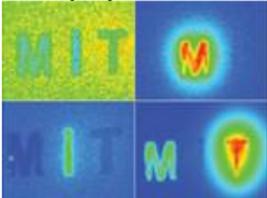
"Robust licensing revenue and corporate alliances boost translational research."  
 Source: [Harvard Magazine](#) (March-April 2019)

**GRAPHENE**  
**First Scalable Graphene Yarns for Wearable Textiles Produced**



"The process ... has the potential to produce tonnes of conductive graphene-based yarn, using existing textile machineries and without adding to production costs. In addition to producing the yarn in large quantities, they are washable, flexible, inexpensive and biodegradable."  
 Source: [Printed Electronics World](#) (11 March 2019)

**HEALTHCARE**  
**New Optical Imaging System Could Be Deployed to Find Tiny Tumors**



"Near-infrared technology pinpoints fluorescent probes deep within living tissue; may be used to detect cancer earlier."  
 Source: [MIT News](#) (7 March 2019)

**HIGHER EDUCATION**  
**Top Universities Join to Push 'Public Interest Technology'**



"As technology becomes increasingly pervasive in American life, universities across the United States have been devising ways to teach students how to grapple with the consequences on society."  
 Source: [The New York Times](#) (11 March 2019)

**INTERNET**  
**How the Internet Travels Across Oceans**



"The internet consists of tiny bits of code that move around the world, traveling along wires as thin as a strand of hair strung across the ocean floor. The data zips from New York to Sydney, from Hong Kong to London, in the time it takes you to read this word."  
 Source: [The New York Times](#) (10 March 2019)

**ROBOTICS**  
**A Robotic Leg, Born Without Prior Knowledge, Learns to Walk**



"Researchers believe they have become the first to create an AI-controlled robotic limb driven by animal-like tendons that can even be tripped up and then recover within the time of the next footfall, a task for which the robot was never explicitly programmed to do."  
 Source: [Science Daily](#) (11 March 2019)

**URBAN PLANNING**  
**How Online Neighborhood Reviews Could Aid Urban Planning**



"A new study shows how we can sort through vast trove of digital data to improve cities and people's quality of life."  
 Source: [University at Buffalo](#) (11 March 2019)

**WATER MANAGEMENT**  
**What China Can Learn from New York City About Wastewater Management**



"Some of New York City's advanced treatment plants use innovative methods to capture valuable by-products of organic waste, such as methane and digestate, which can then be reused or sold."  
 Source: [Scientific American](#) (8 March 2019)

**WOMEN IN ARCHITECTURE**  
**10 Champions for Women in Architecture and Design**



"On International Women's Day, here's a look at some of the individuals, collectives and organisations that are working hard to raise the profile of female architects and designers around the world."  
 Source: [Dezeen](#) (8 March 2019)