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22 October 2018 - 26 October 2018

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HealthCare	Robotics & Automation	Design & Innovation
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3D PRINTING
3D-Printed Lithium-Ion Batteries

"Researchers have developed a new method to 3D print lithium-ion batteries in virtually any shape."

Source: Printed Electronics World (22 October 2018)

3D PRINTING
'Fingerprints' Could Trace 3D-Printed Guns to Their Sources

"The advancement, which the researchers call PrinTracker, could ultimately help law enforcement and intelligence agencies track the origin of 3D-printed guns, counterfeit products, and other goods."

Source: Futurity (19 October 2018)

AGEING
Sandra Day O'Connor Says She 'Probably' Has Alzheimer's: What Defines Different Dementias?

"What the scientific field is trying to do now is to create other ways to differentially diagnose individuals' dementia using biomarkers …"

Source: Live Science (23 October 2018)

AI ETHICS
Establishing an AI Code of Ethics Will Be Harder Than People Think

"Ethics are too subjective to guide the use of AI, argue some legal scholars."

Source: MIT Technology Review (21 October 2018)

ARCHITECTURE
Life After Serpentine: Second Lives of Architecture's Famed Pavilions

"If the surest sign of summer in London is the appearance of a new pavilion in front of the Serpentine Gallery, then it's perhaps fair to say that summer is over once the pavilion is taken down … Here, in reverse chronological order, the second lives of the Serpentine Pavilions."

Source: Arch Daily (18 October 2018)

ARTIFICIAL INTELLIGENCE
Singapore AI Startup Map 2018

Source: Victor Baffet

"This list of AI startups in Singapore that we've found circulating the internet is a good gauge of the prevalence of AI in fintech."

Source: Fintech News (22 October 2018)

CREATIVITY
The 100 Most Creative People in Business

"Witherspoon and her team are developing a slew of shows and films - with Apple TV, Hulu … - while also building a direct-to-consumer brand through a fast-growing and influential book club, Facebook and YouTube videos, audiobooks, podcasts, and newsletters."

Source: Fast Company (Issue 225, Summer 2018)
Available @ SUTD Library (Call Number HF5001 FAS)

CYBERSECURITY
Defending Against Spectre and Meltdown Attacks

"New system breaks up cache memory more efficiently to better protect computer systems against timing attacks."

Source: MIT News (18 October 2018)

INTERNET OF THINGS
The Social Behavior of Honeybees Applied to IoT Systems

"Significant benefits for bees of IoT technologies lie in monitoring beehives remotely, reducing the time spent inspecting bees and thereby decreasing their stress levels."

Source: IoT for All (22 October 2018)

MATERIALS SCIENCE
Carbon Fibre Can Store Energy in the Body of a Vehicle
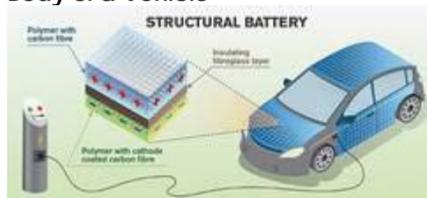
"A study has shown that carbon fibres can work as battery electrodes, storing energy directly. This opens up new opportunities for structural batteries, where the carbon fibre becomes part of the energy system."

Source: Chalmers (18 October 2018)

MATERIALS SCIENCE
Nanosized Ferroelectrics Become a Reality

"Conventional wisdom dictates that ferroelectric properties disappear when the bits are made smaller. University of Groningen (UG) physicists have now gathered evidence that could persuade the skeptics."

Source: Science Daily (22 October 2018)

MEDICAL DEVICE
AR Medical Tool Helps Locate Veins for Starting IVs

"Medical professionals have now also started to benefit from the technology. Starting an IV can be tricky. Veins are hard to locate, and making multiple injection attempts can cause patients physical and emotional pain."

Source: Spring Wise (22 October 2018)

SMART DEVICE
A New Device Can Identify Air Travellers Carrying an Infectious Disease

"Dr Kuhlmeier's invention, being developed as part of a wider project called HyFly that is intended to stop airports being gateways for infection, is based on technology … ion mobility spectrometry (IMS) …"

Source: The Economist (18 October 2018)

SUPERCAPACITOR
3D-Printed Supercapacitor Electrode Breaks Records in Lab Tests
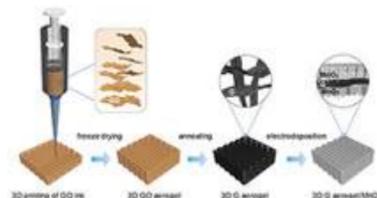
"Advances in supercapacitor technology could lead to wider use of fast-charging energy storage devices and novel designs for electronic gadgets."

Source: UC Santa Cruz (18 October 2018)

TECHNOLOGY
Special Report
Japan: Innovation and Technology

"Japan's scientists are upgrading its Super-Kamiokande neutrino detector, turning to plastic for electric cars and enhancing eel farming with 'marine snow'. The country has big ambitions in space and hopes to create 20 unicorns by 2023."

Source: Financial Times (2018)

WATER MANAGEMENT
Growth Opportunities in Global Smart Water Leakage Management Solutions Market, Forecast to 2025

"Non-revenue water (NRW) is water that is lost before it reaches the end users. Physical loss, i.e., water lost through leaking pipelines is a key contributor to NRW … The global NRW is estimated at 126 billion litres per year, which has a monetary value of around $40 billion/year."

Source: Frost & Sullivan (11 October 2018)