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13 August 2018 - 17 August 2018

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3D PRINTING

P-Rouette Is a 3D-Printed Ballet Shoe Designed to Reduce Pain Felt by the Dancer

"Bezalel Academy of Art and Design graduate Hadar Neeman has created personalised ballet shoes using 3D-printing technology to reduce dancer's pain."

Source: Dezeen (10 August 2018)

AI IN HEALTHCARE

Breakthrough in AI Technology to Improve Care for Patients

"... a recent breakthrough ... describes how machine learning technology has been successfully trained on thousands of historic de-personalised eye scans to identify signs of eye disease and recommend how patients should be referred for care."

Source: Moorfields Eye Hospital (15 August 2018)

ARCHITECTURE

Robot-Built Pergola Showcases Swiss Digital Fabrication Skills

"The four-metre tall construction was inaugurated in June and was the handiwork of 17 architecture students at the Swiss Federal Institute of Technology in Zurich (ETHZ). The structure is made completely of timber and is held together by 2,700 cylindrical wooden pegs called dowels."

Source: Swiss Info (11 August 2018)

CRYPTOCURRENCY

Cryptomaniacs: A Field Guide

"The article offers information on crypto was the domain of techno libertarians and cypherpunk being traded and shared for alternative currencies on the website and message boards. It mentions that the development in meteoric, bitcoin, ethereum, and other coins has changed crypto into the public imagination."

Source: Fast Company (September 2018)

CYBERSECURITY

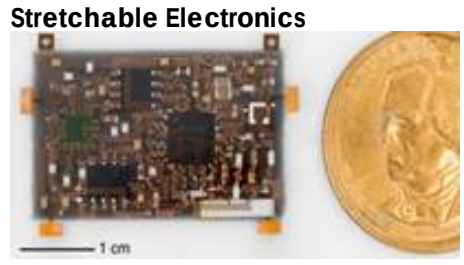
How Hacked Water Heaters Could Trigger Mass Blackouts

"... one group of researchers has imagined how an entire power grid could be taken down by hacking a less centralized and protected class of targets: home air conditioners and water heaters. Lots of them."

Source: Wired (13 August 2018)

ELECTRONICS

Three-Dimensional Integrated Stretchable Electronics



"Stretchable electronics is an emerging technology that creates devices with the ability to conform to nonplanar and dynamic surfaces such as the human body."

Source: Nature Electronics (13 August 2018)

GENE-SILENCING

Gene-Silencing Technology Gets First Drug Approval After 20-Year Wait

Source: Phys.org

"US regulators have approved the first therapy based on RNA interference (RNAi), a technique that can be used to silence specific genes linked to disease. The drug, patisiran, targets a rare condition that can impair heart and nerve function."

Source: Nature (10 August 2018)

GRAPHENE

Topological Band Engineering of Graphene Nanoribbons

"Topological insulators are an emerging class of materials that host highly robust in-gap surface or interface states while maintaining an insulating bulk ... recent theoretical work has predicted the existence of one-dimensional symmetry-protected topological phases in graphene nanoribbons (GNRs)."

Source: Nature (8 August 2018)

INTERNET-OF-THINGS

How AWS IoT Device Defender Secures Connected

"According to Amazon, AWS IoT Device Defender is a fully managed IoT security service that enables customers to secure their IoT configurations on an ongoing basis. With AWS IoT Device Defender, customers get tools to identify and respond to security issues."

Source: Forbes (12 August 2018)

MATERIALS SCIENCE

Could Carrots Make Concrete Stronger and Greener?

"The vegetable-composite concretes, made from vegetables such as sugar beet or carrot, have structurally and environmentally out-performed all commercially-available cement additives, such as graphene and carbon nanotubes, doing so at a much lower cost."

Source: ArchDaily (10 August 2018)

MATERIALS SCIENCE

This Synthetic Wood Is as Strong as the Real Thing—And Won't Catch Fire

"Plastic-wood composites have long been a favorite of homeowners...But these engineered woods typically aren't as strong as natural wood and can be even more prone to catching fire. Now, researchers report they've created a synthetic wood ... that matches natural wood's strength and is flame resistant to boot."

Source: Sciencemag (10 August 2018)

MATHEMATICS

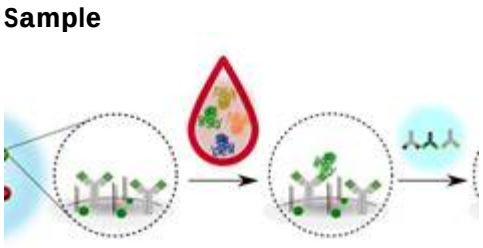
MIT Mathematicians Solve Age-Old Spaghetti Mystery

"In a paper published this week in the Proceedings of the National Academy of Sciences, researchers report that they have found a way to break spaghetti in two, by both bending and twisting the dry noodles."

Source: MIT News (13 August 2018)

NANOTECHNOLOGY

New Technology Can Detect Hundreds of Proteins in a Single Sample

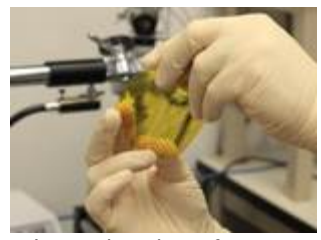


"New technology developed by a team of McGill University scientists shows potential to streamline the analysis of proteins, offering a quick, high volume and cost-effective tool to hospitals and research labs alike."

Source: Phys.org (13 August 2018)

SMART SKIN

Ultra Sensitive Skin for Robots



"The University of Texas at Arlington has patented a smart skin, created by a UTA researcher, that will give robots more sensitive tactile feeling than humans."

Source: Printed Electronics World (13 August 2018)

UX DESIGN

How Age Affects A11Y

"Hilary Stephenson discusses the importance of ensuring older users aren't discriminated against in our increasingly digital society. As more of our products and services move online, ensuring that the growing older demographic are not excluded from accessing vital services has never been more crucial."

Source: Net (Summer 2018)
Available @ SUTD Library (Call Number TK5105 NET)

WEARABLES

Introducing the Latest in Textiles: Soft Hardware

"Researchers have incorporated electronic devices into soft fabrics, potentially making it possible to produce clothing that communicates optically with other devices."

Source: Science Daily (8 August 2018)

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