

Weekly Discovery

We SHARE to inspire and ignite ideas!

28 May 2018 - 1 June 2018

2D MATERIALS
Rare Element to Provide Better Material for High-Speed Electronics



A [new 2D material](#), derived from the rare element tellurium, made transistors process faster through a computer chip. And this new material is more stable than other available 2D materials like graphene, black phosphorus and silicone.
 Source: [Purdue University](#) (24 May 2018)

3D PRINTING
This Stretchy, Inflatable Material Could Build the Cars of the Future



MIT's new [3D printing](#) technology is able to print liquified materials into complex structures with clusters of inflatable and deflatable air chambers. These flexible structures could lead to fully customisable car interiors.
 Source: [Popular Mechanics](#) (28 May 2018)

AI IN EDUCATION
Artificial Intelligence Used to Mark Exam Papers



China trialled AI platform to mark essays based in 60,000 schools with more than 120 million students. Read on to explore the software and platforms used.
 Source: [Digital Journal](#) (30 May 2018)

AIRPORT ARCHITECTURE
Groupe3Architectes Wraps Guelmim Airport in a Skin of Multihued Perforated Panels



In order to establish a new Morocco airport which embraces natural light and ventilation, architects adorned the facade of the building with perforated panels.
 Source: [Dezeen](#) (27 May 2018)

BIG DATA
10 Charts That Will Change Your Perspective of Big Data's Growth



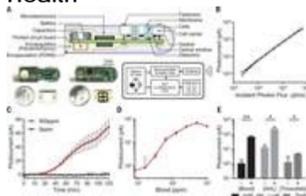
This article draws on various industry reports, painting a picture of the growth trends of the big data industry for the next decade.
 Source: [Forbes](#) (23 May 2018)

BIOMATERIALS
Researchers Use Ancient Art, Cutting-Edge Technology in New Biomaterials



With microfabrication techniques, plain papers that create centimetre-scale scaffoldings were used to regenerate new biomaterials, known as tissue mimetics, which can help combat the shortage of tissue and organ donors.
 Source: [UMass Lowell](#) (24 May 2018)

BIOMOLECULAR DETECTION
An Ingestible Bacterial-Electronic System to Monitor Gastrointestinal Health



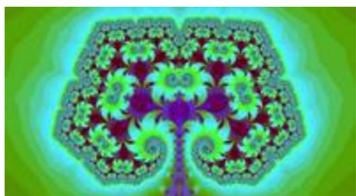
Check out your gastrointestinal health by swallowing this device which uses bacteria to detect diseases and access gut health. It also sends back readings wirelessly.
 Source: [Sciencemag](#) (25 May 2018)

CES ASIA 2018
CES Asia 2018 Announces Innovation Award Honorees



Curious about the ground-breaking technologies in product design and engineering? Check out the [complete list](#) of CES Asia 2018 Innovation Award Honorees.
 Source: [Business Wire](#) (28 May 2018)

DIGITAL HUMANITIES
TSU Is Creating a Cognitive Stimulator



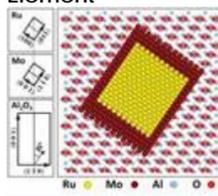
A Master's student in Russia is developing a biofeedback system leveraging on fractal videos and selected music, which were proved to improve human cognitive abilities.
 Source: [Phys.org](#) (29 May 2018)

DISPLAY TECHNOLOGY
New Breakthrough on Video Electronic Paper in China



Electrowetting techniques were used for greater colour video e-paper display performance with ultra-fast video streaming, distinct contrast ratio, low power consumption, high resolution and full colour.
 Source: [PR Newswire](#) (24 May 2018)

MAGNETIC MATERIALS
Scientists Discover New Magnetic Element



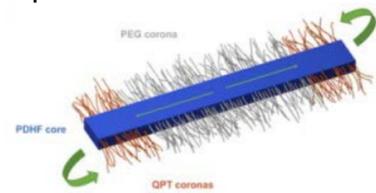
The fourth material ruthenium was discovered to have magnetic characteristics in indoor temperature. The new finding paves the way for enhanced sensors and devices using magnetic materials.
 Source: [EurekAlert!](#) (25 May 2018)

MEDICAL SCIENCE
Long in the Tooth: Teeth, Like Trees, Grow in Rings



Turning teeth into time machines revealed the level of lead exposure from polluted air, water and food. Read on to discover what else can be identified from the "growth rings" of teeth.
 Source: Discover (June 2018)
 Available @ SUTD Library (Call Number Q1 D54 DIS)

POLYMER NANOFIBRES
Polymer Nanofibre Could Help Improve Solar Cells



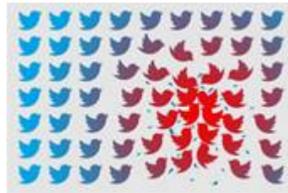
These [polymer-based semiconducting nanofibres](#) can efficiently transport excitons over distances of 200 nm, pointing to a great leap for light-harvesting and optoelectronics devices.
 Source: [Physics World](#) (28 May 2018)

SMART TEXTILES
An Elastic Fiber Filled with Electrodes Set to Revolutionize Smart Clothes



Fibres turn into ultra-sensitive sensors when electrodes are added at strategic locations. Able to detect the slightest pressure, withstand drastic deformation and integrate with robotic fingers as artificial nerves.
 Source: [Science Daily](#) (25 May 2018)

SOCIAL MEDIA
Social Media Posts May Signal Whether a Protest Will Become Violent



Researchers have found a correlation between numbers of agreement on protests attitudes and violent clashes with police. The higher the agreement, the higher the number of arrests.
 Source: [USC News](#) (23 May 2018)

TECH TRENDS
Gartner's Top 10 Strategic Technology Trends for 2018
Gartner's Top 10 Strategic Technology Trends for 2018



Gain insights into the trending technologies and how they are applied to drive change in the way we live, work and design products, services and solutions.
 Source: [Gartner](#) (2018)

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