

Weekly Discovery

We SHARE to inspire and ignite ideas!

2 April 2018 - 6 April 2018

AEROSPACE

Heathrow Implements World's First Fully Systemised ORD Tool

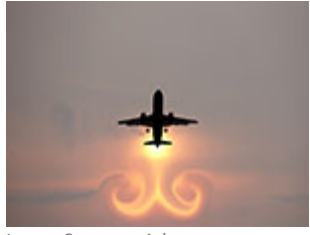


Image Source – Advance

ORD (Optimised Runway Delivery) tool aids in reducing the amount of time that the airplane spends on the air before landing. Hence increasing the traffic flow operational efficiency and resilience.

[Source: Advance 27th March 2018](#)

BATTERY

Building Lithium-Sulfur Batteries with Paper Biomass



Image Source – Techxplore

A prototype consisting of paper biomass to build rechargeable lithium-sulfur battery had been developed by researchers at Rensselaer Polytechnic Institute. This could paved the way for more eco-friendly and efficient battery.

[Source: Techxplore Date: 2 Apr 2018](#)

BIOMEDICAL

This 'Injectable Bandage' Made From Seaweed Could Stop Internal Bleeding in Minutes

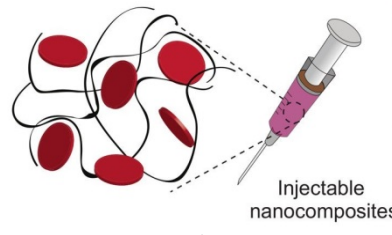


Image Source – Science Alert

An injectable hydrogel comprised of a seaweed-derived gelling agent and two-dimensional clay nanoparticles, the danger of internal bleeding can be reduced. For technical details. Read more at [Acta Biomaterialia](#)

[Source: Science Alert 3rd April 2018](#)

CONSUMER TRENDS

Top 5 Digital Consumer Trends in 2018



Source – Euromonitor

Learn about how digital technologies are creating consumer trends that are changing the way we shop, travel, eat, communicate and manage our finances. Mega apps such WeChat, Facebook and Apple are part of this change.

[Source: Euromonitor March 2018](#)

CYBER SECURITY

This small robot lures hackers away from other robots

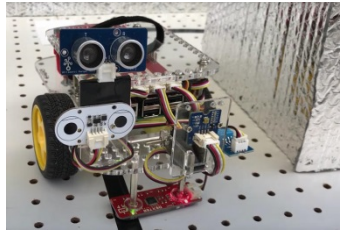


Image Source – ZDNet

Researchers developed a novel robot called HoneyBot that can fool the potential hackers. This early warning tool will pave the way for industry automation security.

[Source: ZDNet 2 April 2018](#)

ENTREPRENEURSHIP

Demystifying The Genius of Entrepreneurship: How Design Cognition Can Help Create The Next Generation of Entrepreneurs.



Image Source – creative-Commons-Images

Learn how teaching Entrepreneurship can be enhanced by applying design cognition techniques to help boost creativity and helps widen the range of views and strategies to apply to meet customers needs.

[Source:003A Academy of Management Learning & Education March 2018](#)

ELECTRONICS

Weird Magnetic Behaviour Could Improve Computer Memory

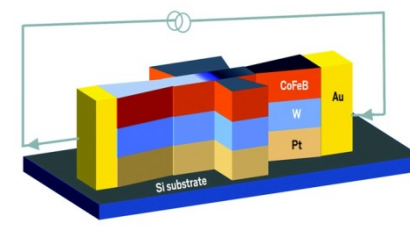


Image Source – Chemical & Engineering

A study in magnetic devices that could lead to efficient, low-power forms of computer magnetoresistive random access memory (MRAM) as they uncovered a phenomenon that defies the spin-switching effect with no magnetic field required.

[Source: Chemical & Engineering News 30 March 2018](#)

MATERIALS

Now you see it: Invisibility material created

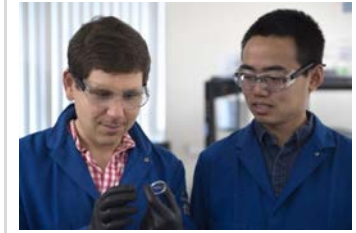


Image Source – Science Daily

This material changes by smoothing or wrinkling their surfaces after under a second being stretched or electrically triggered or reflected by heat. Also read the paper at [Science](#).

[Source: Science Daily 29 March 2018](#)

MATERIAL SCIENCE

Engineers turn plastic insulator into heat conductor

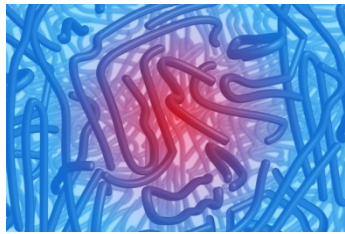


Image Source – MIT News

Engineers have developed a lightweight and flexible plastic material that works like a heat conductor, dissipating heat rather than insulating it. It can be applied to computer casings for fast heat dissipation and be applied on any plastic surface.

[Source: MIT News 30 March 2018](#)

MATERIAL SCIENCE

2017 JMR Paper of the Year: New Model Could Make Metal Alloys Even Stronger

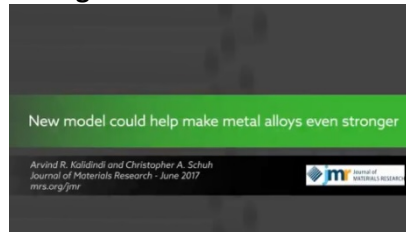


Image Source – Cambridge Core

A new computer model is able to simulate the nano grain structure of metal alloys that could make it stronger. It also presents production requirements such the temperature, structure and process.

[Source: Cambridge Core 28 March 2018](#)

MEDICAL

Watch a Gel Embedded with Heart Cells Change Color with Every Beat

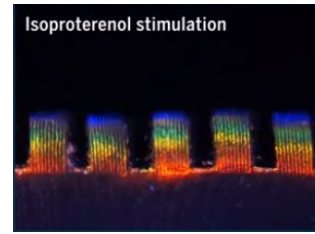


Image Source – Science Magazine

This bio-hybrid technique allows beating heart cells with a special gel that is layered on, to change colours when new drugs are introduced.

[Source: Science Magazine 28 March 2018](#)

PRAMATRIC DESIGN

Parametric-Based Distribution Duct Routing Generation Using Constraint-Based Design Approach

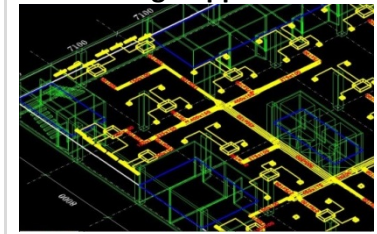


Image Source – Automation in Construction

Explaining the use of parametric design on designing duct routings. It explores the mundane complex configuration of ceiling mounted fan coil systems in buildings using automated distribution routing with constraint-based approach.

[Source: Automation in Construction June 2018](#)

ROBOTICS

Robotics in the Power Industry, Global, 2018



Image Source – Frost & Sullivan

A 47-page report featuring a case study on 5 robotics application in the power industry. Robots that can clean solar panels, inspect hydro dam surfaces, underwater drones are some of the robots featured.

[Source: Frost & Sullivan 20 Mar 2018](#)

SMART HOME

ResiDI: Towards a Smarter Smart Home System for Decision-Making Using Wireless Sensors and Actuators

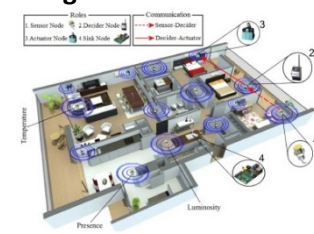


Image Source – Computer Networks

ResiDI focuses on increasing precision in decision-making through a neural network and seeks to reduce node energy consumption by means of a temporal correlation mechanism.

[Source/Computer Networks 22 April 2018](#)

SMART WEARABLES

Stretchable, twistable wires for wearable electronics

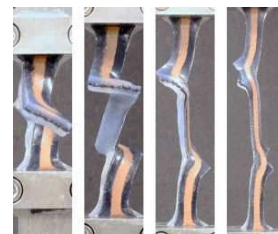


Image Source – PhysOrg

A new "felt" is a conductive wiring that is flexible and even can be patterned onto fabrics to act as wires in carrying current. These nanowires were turned 300 times without any effect on its performance, which is above current technology.

[Source PhysOrg 3 April 2-18](#)

TECH TRENDS

Accenture Technology Vision 2018 Report

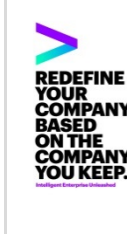


Image Source – Accenture

This 78-page report by Accenture detailing technology forecasts in the next 3 years, including AI, extended reality, data security, etc., for corporates to embark on the journey of intelligent corporations.

[Source: Accenture February 2018](#)

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