

Weekly Discovery

We SHARE to inspire and ignite ideas!

27 February 2017 – 3 March 2017



ARCHITECTURE TOP 10 architecture projects that integrated nature in 2016



Explore these designs that resonate with the environment. They include Shandong Teahouse by Trace Architecture Office, Lucky Knot Bridge by Next Architects, Treetop Walkway by Glen Howells Architects and Vincent Callebaut's Sustainable Ecosystem.

Source: <u>Designboom.com</u> (2017)

DRONES

MWC 2017: DJI drones use plane avoidance tech



Presenting drones equipped with sensors that can detect the presence of any aircrafts nearby. This is intended as a precaution against collision accidents and will help drone operators work in restricted airspace.

Source: BBC.com (27 February 2017)

MOBILE GAMING

Mobile gaming eclipses home game consoles, PC and Mac plays: <u>Report</u>



Here you can read about the growth of mobile gaming in 2016. Key findings include that 60% of the global spending on mobile gaming was in Asia and that new technologies fueled the growth of mobile gaming with games employing augmented reality and virtual reality. In addition, you can read about gaming

SPECIAL HIGHLIGHT

PARAMETRIC DESIGN

Shipping concerns with the transportation of goods between two or more seaports. Logistics describes the flow of goods from the initial supplier to a delivery organization, then to the final consumer. Shipping Logistics studies the up-to-date developments and practices of logistics in terms of the shipping and port industry. This topic has received increased attention world-wide due to the fast growing volume of world trade in the last decade. <u>READ MORE></u>

BATTERY TECHNOLOGY

A Wearable Battery Made From Green Tea



Researchers have designed a flexible and compact rechargeable battery for wearable electronics which employs polyphenols in green tea. Read more at the <u>Journal of Physical Chemistry C</u>.

Source: Asian Scientist (23 February 2017)

GAME THEORY Game theory sa

Game theory says publicly shaming cyberattackers could backfire



Security experts may publicly identify culprits of cybercrime with the intention of deterring them from further crimes. However the consequences of being identified could sometimes be small and instead could boost their standing as a threat.

Source: <u>New Scientist</u> (27 February 2017)

ROBOTICS

Boston Dynamics' Handle robot dominates parkour on wheels in new footage



Presenting a robot which can do parkour moves. It can move over rough terrain, jump up to 4 feet high and move at a speed of up to 9 miles an hour. Find out more about the robot in <u>this video</u>.

BROWSER FINGERPRINTING

Browser Fingerprinting Tech Works Across Different Browsers for the First Time

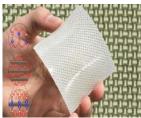


A new browser fingerprinting software that identifies users across multiple Web browsers. It can identify 99.24 percent of users across browsers, well above 90.84 percent by AmlUnique, the most advanced single-browser method.

Source: <u>IEEE Spectrum</u> (24 February 2017)

HYDROGELS

Soft, But Stronger Than Steel

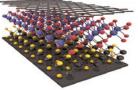


Hydrogels that are 5 times <u>tougher than</u> <u>steel</u>. Researchers combined hydrogels containing high levels of water with glass fibre fabric to create tough yet flexible materials. Read more about them at <u>Advanced Functional Materials</u>.

Source: <u>Asian Scientist</u> (28 February 2017)

SEMICONDUCTORS

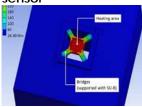
Breakthrough in 'wonder' materials paves way for flexible tech and IoT capabilities



It is the first time ever to measure 2D semiconductor heterostructures, the super thin and strong, highly conductive materials for nano-circuits, leading to smaller and more powerful gadgets. Also read the <u>Science publication</u>.

SENSORS

Microhotplates for a smart gas sensor



A smart sensor to detect gas leaks from a stove. It can accomplish signal processing and communication alongside sensing within a single chip. Read more at the Journal of Micromechanics and Microengineering

Source: Phys.org (22 February 2017)

SOLAR PANELS

Solar panels get a face-lift with custom designs



The SolarSkin technology allows you to customise solar panels that match building facades, eyeing at engaging more residents to install photovoltaic systems.

Source: MIT News (22 February 2017)

WIRELESS TECHNOLOGY

Disney Researchers Make Wireless Power Transfer Breakthrough



Disney has discovered a safe way to deliver wireless power in an entire room to power up electrical devices. This is through the introduction of quasi-static cavity resonance (QSCR). Read more on their findings published in <u>PLOS One</u> Journal.

Source: IFL Science! (21 February 2017)

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