

Weekly Discovery

We SHARE to inspire and ignite ideas!

26 December 2016 - 30 December 2016



SPECIAL HIGHLIGHT

WARFARE TECHNOLOGY

Warfare Technology has come a long way from the origins of the catapult and have progressed nearer to Star Wars where laser guns and robots are part of military warfare. Technology has enabled long range attacks, advanced surveillance, reconnaissance and enemy detection in dark and dusty environments with the use of drones, robots, sensors and various imaging devices **READ MORE>**

ARCHITECTURAL DESIGN

Beautifying the Border proposal replaces US-Mexico fence with landscaping



Donald Trump says that he will build a wall across the border between Mexico and the USA. DOMO Architecture proposed a design that takes inspiration from natural landscapes to remove the undesirable feelings a physical wall invokes. A series of images on this design available.

Source: Dezeen (20 December 2016)

ARTIFICIAL INTELLIGENCE

Apple Publishes Its First Artificial Intelligence Paper



The very first Al paper from Apple has been recently published, unveiling its efforts for years on training neural networks to recognize images using synthetic images instead of real-world images.

Source: Forbes.com (26 December 2016)

AWARDS FOR ARCHITECTURE

The 2016 Residential Architect Design **Awards**



Presenting award-winning residential building designs of 2016. They include Terrace 459 by Landon Bone Baker Architects, Walnut Estates by Moto Designshop, TP-H Residence by Alexander Jermyn Architecture and the Half-Tree House by Jacobschang Architecture.

Source: <u>Architect</u> (6 December 2016)

BATTERY TECHNOLOGY

Scientists Build Bacteria-powered **Battery on Single Sheet of Paper**



A bacteria-powered battery that can keep fabrication time and cost to a minimum. It can be used for disposable point-of-care diagnostic sensors, in resource-limited settings. Read more about the bacteria-powered battery at **Advanced Materials Technologies**

Source: Science Newsline Technology (21 December

Breakthrough Brands 2017



Gain insight to what makes a brand stand out and be popular. With the emergence of technology and the internet, young companies are able to build their brand equity quickly enough to stand side by side with established brands like Nike, Coke and many others that have been around for decades.

Source: Fortune (1 January 2017)

DNA TECHNOLOGY

Through DNA technology, the world's smallest spring is created



Researchers have used DNA-based technology to create <u>nano-sized springs</u>, equivalent to the size of a protein. This can be used as raw materials in engineering such as a component in semiconductors. Read more about the nanosprings at Nature Communications.

Source: The Asahi Shimbun (26 December 2016)

HOME DESIGN

Interactive Infographic Unveils AIA's 2016 Third Quarter Home Design **Trends Survey**



The third quarter **Home Design Trends** Survey of 2016 has been recently released by the American Institute of Architects (AIA), offering insight on the future trends of community and neighborhood design.

Source: ArchDaily (22 December 2016)

INNOVATION

Top 10 Innovations 2016



Featuring the winners of *The Scientist's* 2016's Top 10 Innovations in life science technology. This award gives recognition to and celebrates the transformational innovations that include a mixture of both giant leap and small but impactful advances. Check out also The 10 edgiest innovation ideas of 2016.

Source: The Scientist (1 December 2016)

MATERIALS

New record set for world's most heat resistant material



TaC and HfC materials can withstand high temperatures of nearly 4000 degrees Celsius. HfC was also discovered to have the highest melting point for any material. They could be employed for heat resistant shielding for the next generation of hypersonic space vehicles. Additionally read more at Scientific Reports.

Source: Phys.org (22 December 2016)

LOGISTICS

Amazon Looks to Develop an Uber-Like App for Booking Truck Freight



Plans to develop mobile technology to schedule and keep track of truck cargo of its products with only a few clicks by ecommerce giant, Amazon.com.lnc. This move will help Amazon become its own global freight broker, which is expected to reduce costs involved in the freight management operation.

Source: The Wall Street Journal (18 December 2016)

TECHNOLOGY FAILURES

The Biggest Technology Failures of 2016



The worst technologies of 2016 include Volkswagen's 'defeat device', Apple Watch, Facebook's News Feed and the glowing plant that actually could not glow. The failures of the technologies are attributed to a variety of factors, such as legal scandals, lack of profitability, fake news and false promises.

Source: MIT Technology Review (27 December 2016)

One Steals Your Logo

Machine Learning Will Make Sure No



MACHINE LEARNING

Different from the typical non-visual trademark or logo comparison adopted by many intellectual property registration bodies, this deep learning system can analyze images much like humans to detect and compare logos.

Source: Mashable (22 December 2016)

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