

Weekly Discovery

We SHARE to inspire and ignite ideas!

17 October 2016 –21 October 2016



SPECIAL HIGHLIGHT

Sustainable & Green Architecture Design

Sustainable and green architecture aims to reduce any harmful effects on the environment derived from carbon emissions, energy consumption, improving liveability and reduction of construction waste. According to "The Economist", architecture that is sustainable and green is increasing throughout the globe, helping to reduce pollution, waste and saving corporations a lot of money in energy costs.

[Read More >](#)

ACOUSTICS

Lego-like wall creates holograms of sound



Engineers have designed [3D acoustic holograms](#) in an uncomplicated manner. This technology can collectively vary the direction of sound waves and can be applied to be like ultrasound technology and create a surround sound system effect at a cheaper cost. More details at [Nature](#).

Source: [Futurity.org](#) (17 October 2016)

ARCHITECTURE

DAM Selects the Top 10 Architectural Books of 2016



The ten winners this year feature a wide range of topics and graphic styles, and projects from all over the world. The criteria for the award were based on the design content, quality of material and finishing, innovation, and topicality.

Source: [ArchDaily](#) (17 October 2016)

CONSTRUCTION

Researcher develops technology to improve efficiency at construction sites



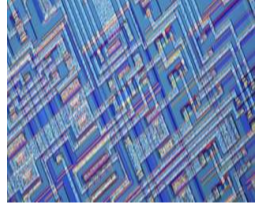
Image Source: Denver Urban Review

SAMCRO Technologies LLC is working towards the commercialization of technology that would make work at construction sites more economical. The technology enables pre-existing sensors on equipment to work in tandem with an operational model of the site, to minimize time and cost overruns.

Source: [Phys.org](#) (18 October 2016)

ELECTRONICS

Scientists Have Made Transistors Smaller Than We Thought Possible



Introducing a [new transistor gate](#) that is only 1 nanometer long, this indicates a significant improvement over the existing models as well as a remarkable increase on the computer speeds. Also read this [Science publication](#).

Source: [Popular Mechanics](#) (12 October 2016)

GAMING

Digital Activation Is the Future of Gaming

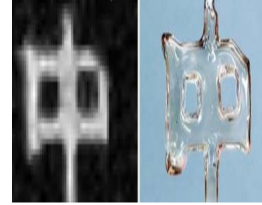


The latest craze in gaming is the merging of the real world with the digital world gaming world, set off by Pokemon Go! Find out how this is extending to toys as well as customization of game characters using simple 2D sketches.

Source: [Inc](#) (12 October 2016)

IMAGING

Novel imaging technique with potential for medical diagnostics



[Polarized nuclear imaging](#) is the first-ever technique that combines both magnetic resonance imaging (MRI) and gamma-ray imaging. It can be used for medical diagnostics, industrial and research applications and is inexpensive. More details at [Nature](#).

Source: [Science News](#) (12 October 2016)

INTERNET OF THINGS (IoT)

How to Make Your First IoT Product a Great One

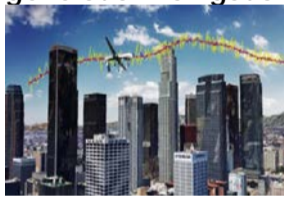


5 steps to include when designing an IoT product to ensure success from design to production. Touching on topics like prototyping, production costs and more.

Source: [Entrepreneur](#) (17 October 2016)

NAVIGATION

No GPS, no problem: Next-generation navigation



A navigation system that employs [Wi-Fi](#), instead of GPS. It could be used in the navigation systems for fully autonomous vehicles. Also read 2 award-winning papers, [Performance Characterization of Positioning in LTE Systems](#) and [Signals of Opportunity Aided Inertial Navigation](#).

Source: [Science News](#) (13 October 2016)

NOBEL PRIZE WINNERS

Nobel laureates in their own words: Lindau collection



At the 66th Lindau Nobel Laureate Meeting, Nature captured conversations between researchers and Nobel Laureates on camera as they talked about their work on light, time, matter, and the universe and presented them in [a series of animations](#).

Source: [Nature Video](#) (30 September 2016)

PROCESS TECHNOLOGY

Scientists Accidentally Discover Efficient Process to Turn CO₂ Into Ethanol

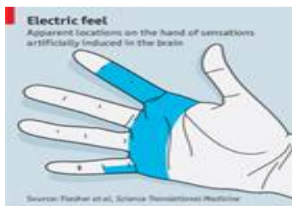


A cheap and efficient process using nanotechnology to convert carbon dioxide into a useful fuel ethanol. It is scalable and potentially could be used to help avert climate change by removing large amounts of CO₂ from the atmosphere.

Source: [Popular Mechanics](#) (17 October 2016)

PROSTHETICS

Prosthetic medicine

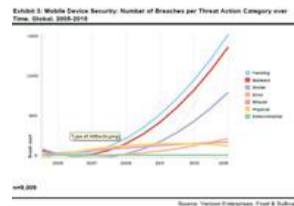


Researchers from the University of Pittsburg implanted electrodes to the patient's fingers and brain. The patient is able feel the sensations and pinpoints the origin with up to 84% accuracy. This could pave the way for prosthetic limbs that can provide a natural-feeling feedback to the user.

Source: [The Economist](#) (15 October 2016)

SECURITY

Opportunities in Mobile Device Security



This 12-page comprehensive insight report proposed that with the rising number of mobile devices using Fintech services, Fintech companies should look into areas such as cryptography, security-by-design, control access to data to boost the robustness of the platform.

Source: [Frost & Sullivan](#) (18 October 2016)

