

Weekly Discovery

We SHARE to inspire and ignite ideas!

16 January 2017 – 20 January 2017

ALGORITHMIC DESIGN

What Happens When Algorithms Design a Concert Hall? The Stunning Elbphilharmonie

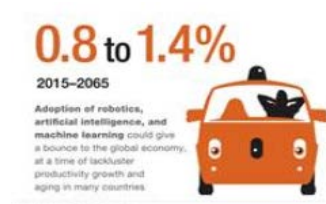


When algorithm meets architecture, the designers adopted parametric algorithms to produce 10,000 uniquely shaped and patterned acoustic panels for a concert hall.

Source: [Wired](#) (12 January 2017)

AUTOMATION

Harnessing automation for a future that works

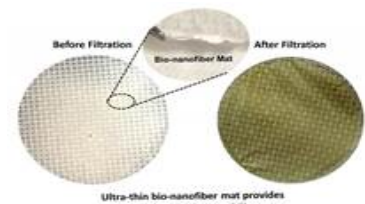


A recent McKinsey report shared that in order for automation to reach its full potential, both human and technologies need to work together. You can also download the full report from the article.

Source: [McKinsey & Company](#) (January 2017)

BIOMATERIALS

Researchers Develop Environmentally Friendly Soy Air Filter



To cope with poor air quality in some regions, scientists developed a soy-based air filter has a stronger ability to capture toxic chemicals than the existing ones. Also read more at [Journal of Composites Science and Technology](#).

Source: [EurekAlert](#) (13 January 2017)

DRONES

Zero-Casualty Mine Sweeping



Presenting the Mine Kafon Drone. It is a drone that detonates mines within its path of travel. It first maps the terrain it travels over, to transform it into a grid. Then it uses a detector to locate mines and employs a detonator to destroy the mines. Mines are then destroyed without danger to anyone.

Source: [Popular Science](#) (January/February 2017)

ELECTRONICS

Mini Fire Extinguishers Inside Lithium Batteries May Stop Blazes



To crack the issue of self-burning batteries, the group of scientists placed flame retardant inside the batteries, which functions just like a fire extinguisher. Read more at [Science](#).

Source: [New Scientist](#) (13 January 2017)

ENERGY

Calculating the Full Cost of Electricity—From Power Plant to Wall Socket



This study looks at the various factors affecting the cost of generating and delivering electricity as well as provides an online calculator to help stakeholders to estimate the cost. See also the full report at the [Energy Institute](#).

Source: [IEEE Spectrum](#) (12 January 2017)

HEALTHCARE DEVICES

Wearable biosensors can flag illness, Lyme disease, risk for diabetes; low airplane oxygen



Researchers have developed ways smart watches and other wearable biosensors can alert the wearer they could be falling ill soon and also inform them about more complex conditions that may or have develop.

Source: [Sciencedaily](#) (12 January 2017)

INDUSTRIAL ANALYTICS

Sponsored Report – Industrial Analytics 2016/17



This is a comprehensive report on Industrial Analytics. It explains how Industrial Analytics can benefit companies through case studies and highlights the challenges faced together with possible remediation.

Source: [IOT Analytics](#) (2016)

INDUSTRIAL TRENDS

The Future of Industries: Bringing Down the Walls

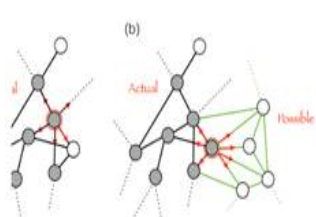


The trending and emerging technologies, such as AI, IoT and Blockchain, are redefining today's industries, including automobile, healthcare, electric utility, and manufacturing. Read this report by PWC to gain more insight.

Source: [Pwc](#) (6 December 2016)

INNOVATION

Mathematical Model Reveals the Patterns of How Innovations Arise



A study has showed that through modified model known as "Polya's urn with innovation triggering", the researchers are able to predict how innovations appear in the real world.

Source: [MIT Technology Review](#) (13 January 2017)

SUSTAINABILITY

'BioClay' a ground-breaking discovery for world food security



A sustainable alternative to conventional pesticides used to preserve plant foods prior to commercialization and consumption. It is sprayed on plants to protect it from pests, after which the BioClay droplets will degrade without any residue. Read more at [Nature Plants](#)

Source: [Phys.org](#) (11 January 2017)

3D PRINTING

Vader systems creates liquid metal 3-D printer for manufacturing



Discover a 3D printer that can print using [liquid metal](#). In contrast to existing metal printers, it does not use powdered metal and this circumvents the issue of weakened spots in the printouts. This new 3D printer is also more cost-effective.

Source: [Sciencedaily](#) (12 January 2017)

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