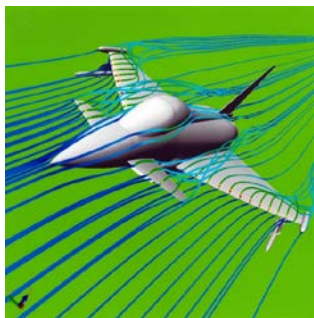


Weekly Discovery

We SHARE to inspire and ignite ideas!

6 March 2017 – 10 March 2017



SPECIAL HIGHLIGHT

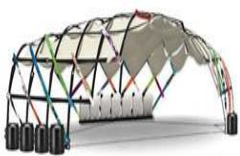
AERODYNAMICS

Aerodynamics refers to the study of the characteristics of moving air and how the air interacts with solid bodies moving through it. It mainly emphasizes the forces of drag and lift. Drag opposes the forward motion of a body and lift helps keep the body airborne. Thus in aerodynamics, minimizing the drag force while maximizing the lift force is paramount. The principles of aerodynamics are applied to the designs of various things, such as bridges, buildings, cars and airplanes to improve their performance and stability.

[READ MORE>](#)

ARCHITECTURE

Building a nomad pavilion out of novel recovered materials



A nomad pavilion made out of 210 skins. The purpose of this project was to repurpose materials once considered waste and use them in sustainable construction. This project will be on display at the Biennale Architecture Lyon in June. You can also watch the video of the construction in this article.

Source: [Phys.org](#) (7 March 2017)

BLOCKCHAIN

The World's Largest Shipping Company Trials Blockchain to Track Cargo

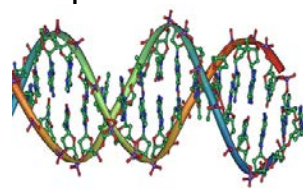


Maersk has started using Blockchain technology to keep track of the progress of their shipments such as the location of a container and the document status. This will save them a lot of staff man hours and paperwork.

Source: [MIT Technology Review](#) (6 March 2017)

COMPUTING

Scientists reveal new super-fast form of computer that 'grows as it computes'



When a computer is searching a maze and comes to a choice point, one path leading left and the other right, it must decide which path to take. However, this DNA computer can replicate itself and follow both paths at the same time. So, it can accomplish tasks more quickly. Read more at [Cornell University Library](#).

Source: [Phys.org](#) (1 March 2017)

DRIVERLESS CARS

The promise of driverless cars



Discover how [driverless cars](#) will transform our lives once they are autonomous and common. That would include transporting people and goods without human drivers and the privacy of individual cars where illegal and unsavory activities could be taking place.

Source: [Phys.org](#) (6 March 2017)

INNOVATION

A green cooking option for village households

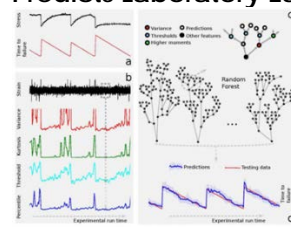


Nexleaf Analytics is a company that distributes stoves to villagers. The stoves feature thermal sensors attached to them to detect faults, improve stove design and decrease carbon emissions. Stove usage data can be viewed simultaneously on the StoveTrace dashboard.

Source: [Livemint](#) (3 March 2017)

MACHINE LEARNING

Machine-Learning Algorithm Predicts Laboratory Earthquakes



A machine learning algorithm has been trained to predict experimental [earthquakes](#), paving the way to real earthquake predictions. Read more in this [Cornell University Paper](#).

Source: [MIT Technology Review](#) (3 March 2017)

MAGNETS

Graphene in 3 layers can make a rare magnet

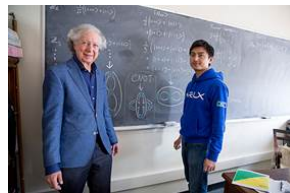


Discover a [new magnet](#) that improves the magnetism of electrons in three-layered graphene at extremely low temperature. It was designed to address the low electron density of graphene.

Source: [Tech Times](#) (2 March 2017)

MATHEMATICS

Making math more Lego-like



Researchers at Harvard have developed a new pictorial language of mathematics call quon. They have created 3-D images of mathematical concepts that help learners understand them. Their pictures include complex equations for quantum teleportation to those used for Pauli matrices.

Source: [HARVARDgazette](#) (2 March 2017)

MATERIAL SCIENCE

New 'sponge' material can absorb 90 times its weight in oil



Presenting a new spongy material that can absorb 90 times its weight in oil and can be reused 100 times. It makes the cleaning up process after oil spills less time-consuming and expensive. Find out more about the material in this [video](#).

Source: [Popular Mechanics](#) (6 March 2017)

ROBOTICS

Cobalt Robotics Introduces a (Mostly) Autonomous Mobile Security Robot



This indoor security robot uses sensors to gather data and machine learning algorithms to process information to capture any suspicious activity. Its warm material appearance also makes it more office-friendly.

Source: [IEEE Spectrum](#) (1 March 2017)

RULE OF LAW

How to upgrade judges with machine learning

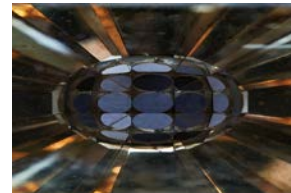


[Software](#) that aids judges in making a decision as to whether or not to jail a defendant while they wait for trial. Find out more at [The National Bureau of Economic Research](#).

Source: [MIT Technology Review](#) (6 March 2017)

TECHNOLOGY

10 Breakthrough Technologies



You can view a list of [10 advanced technologies](#) of the future. They include self-driving trucks, practical quantum computers, the 360-degree selfie, the cell atlas and reinforcement learning.

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

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