# Weekly Discovery

### We SHARE to inspire and ignite ideas!

26 March 2018 - 30 March 2018

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**APPS**

## Shopping Reinvented: Mobile App Features That Drive Discovery, Engagement and Sales

A 29-page report details the top 12 features that mobile apps should encompass to succeed. It also illustrates how certain apps leveraged on these features for huge growths.

Source: Euromonitor Passport (March 2018)

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**ARTIFICIAL INTELLIGENCE**

## Spot the Fake: Artificial Intelligence Can Produce Lifelike Photographs

Can you spot which photo is fake? Scientists gave an answer – they employed an AI technique called generative adversarial networks (GANs) to check image integrity.

Source: Scientific American (April 2018)

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**AUTOMATION**

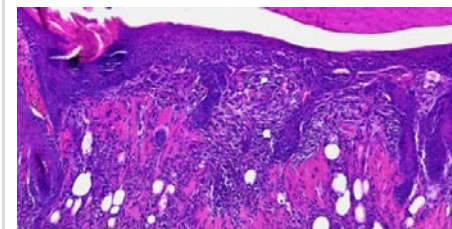## Blame It on the Robots: FedEx Scraps Plans for a Giant Distribution Center

A real case of how the advantages of automation and technological advancement are helping companies to operate more efficiently while saving costs.

Source: Fortune (26 March 2018)

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**BIOMATERIALS**

## Drawing Inspiration from Plants and Animals to Restore Tissue

A new wound dressing that accelerates healing process and boosts tissue regeneration by using natural proteins of plants or animals. Also read full details in t: Article 1 and Article 2.

Source: Science Daily (19 March 2018)

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**BUILDING INFORMATION MODELLING**

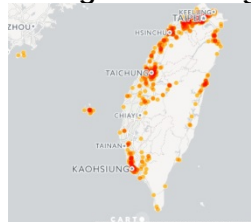## 10 Upcoming Trends in BIM – What More to Expect in 2018

Building Information Modelling (BIM) has become a buzzword in the construction industry. Check out the top 10 trends in BIM which may dominate the construction sector in 2018.

Source: Geospatial World (21 March 2018)

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**BUILDING SCIENCE**

## Analyze the Energy Consumption Characteristics and Affecting Factors of Taiwan's Convenience Stores-Using the Big Data Mining Approach

This study applies big data mining and machine learning techniques to analyse the energy consumption performance of 1052 chain convenience stores in Taiwan, providing recommendations on building energy saving.

Source: Energy and Buildings (1 June 2018)

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**CONSTRUCTION**

## How 3D Printing Can Make Construction Better

Learn how 3D printing can improve the efficiency, cut costs and speed up the construction process. From improved supply chains to manufacturing parts on site to custom homes.

Source: Emerald Group (March 2018)

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**HEALTHCARE**

## There's a Previously Undiscovered Organ in Your Body, and It Could Explain How Cancer Spreads

Scientists recently discovered the interstitium as an organ inside the human body and analysed the fluids flowing along it. The new findings would help identify cancer spreading routes. Also read the paper at Nature

Source: Futurism (28 March 2018)

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**INNOVATION**

## 30 Under 30

Read the 2018 edition of the Forbes 30 Under 30, featuring 600 young visionaries, disruptors, innovators and entrepreneurs across the world, who are under the age of 30 and from 20 different industries.

Source: Forbes (27 March 2018)

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**MEDICAL DEVICE**

## Paper-Folding Art Inspires Better Bandages

A Kirigami film fitted with heating pads serves as a smart bandage that can withstand 100 times of bends and folds compared to current technologies.

Source: MIT News (27 March 2018)

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**NEUROSCIENCE**

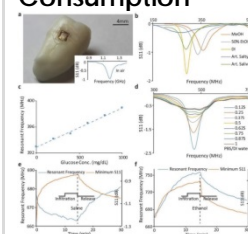## This Wild Mask Could Change the Way We Study the Brain

A helmet-like Magnetoencephalography (MEG) device scans its wearer's brain activities while allowing maximum subject movement. Besides, it can be 3D printed to perfectly fit on a person's head. Read further at Nature.

Source: Popular Mechanics (24 March 2018)

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**SENSORS**

## Functional, RF-Trilayer Sensors for Tooth-Mounted, Wireless Monitoring of the Oral Cavity and Food Consumption

Through attaching a conformal radiofrequency (RF) sensor to a tooth via a porous silk film, it is now possible to monitor a person's food consumption and oral cavity with ease.

Source: Advanced Materials (23 March 2018)

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**STEM CELLS**

## Six Steps to Turn Stem Cells into Liver Cells

Yearly millions have died while waiting for liver transplants. Have a peek into the steps adopted by the Genome Institute of Singapore in creating life-saving liver cells from stem cells.

Source: Asian Scientist (20 March 2018)

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**SURVEILLANCE**

## China's New Frontiers in Dystopian Tech

Read about how facial scanning technology is proliferating in China, from reducing airport checks into a 1-minute face-scan, to customised menu suggestions by reading the face, and a controversial Social Credit System.

Source: The Atlantic (April 2018)

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**TECHNOLOGICAL DESIGN**

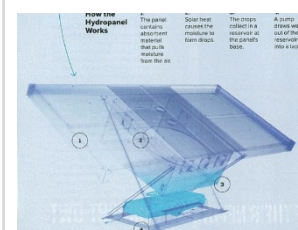## Future Combat War 2030: The Transformative Technologies That Will Redefine the Battleground

Have a great graphical overview of the latest and emerging technologies, science and designs plugged-in to form an impressive defence force.

Source: How It Works (Issue 109)
Available @ SUTD Library (Call Number Q162 HOW)

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**WATER HARVESTING**

## Dry Run: Can Humans Survive on Water Vapor Alone?

Read about an interesting story of leveraging on advanced technology for harvesting water from air in the desert. Also learn about the technology in detail at Nature.

Source: Wired (March 2018)
Available @ SUTD Library (Call Number TK5105.5 WIR)

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