

Weekly Discovery

We SHARE to inspire and ignite ideas!

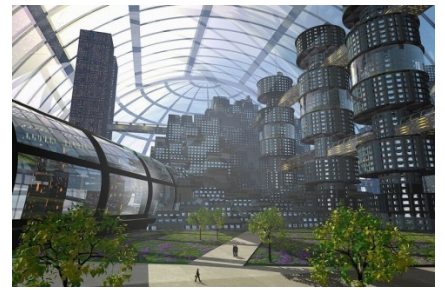
19 December 2016 – 23 December 2016

SPECIAL HIGHLIGHT

LIVEABLE CITIES

"Liveable Cities", literally, refers to cities that have favorable living conditions. In fact, "liveability" is quite a broad term that has no single definition. In this reading list, we look into the concept from five fundamental and indispensable aspects of a city – Economy, Environment, Governance, Living, and Mobility. Then, a couple of case studies are given to share the experience of developing and maintaining a sustainable, resilient, and liveable city.

[Read More >](#)



ANTIMATTER

Scientists Measure Antimatter for the First Time



Through a breakthrough experiment, allows energy levels of antihydrogen to be measured. Physicists combine positrons and antiprotons in a vacuum tube to create antihydrogen, and strong magnetic fields are then used to keep the antihydrogen atoms in place for about 15 mins. You can read more at [Nature](#).

Source: [Popular Mechanics](#) (19 December 2016)

ARCHITECTURE

Germany's solar-powered Smart Green Tower mimics the technology of electric cars



Discover the Smart Green Tower, a residential building inspired by electric car technology. It features photovoltaic panels and stores energy in a lithium-ion battery, which is supplemented by vanadium redox flow batteries, which will help connect the building and the neighbourhood.

Source: [Inhabitat.com](#) (16 December 2016)

BIOMEDICAL DEVICES

Sensor System Offers Real-Time Control of Drug Levels in Blood

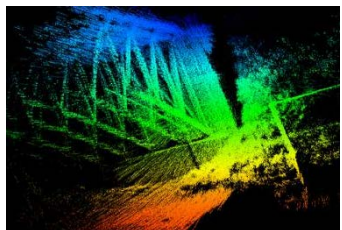


An enhanced biosensor system which can monitor and control in real-time the amount of drugs or even proteins in the blood. Through this system, medicines can be delivered at the right amount at the right time as well as provide warning of diseases.

Source: [IEEE Spectrum](#) (16 December 2016)

DRONES

This flying robot is the newest expert inspecting your city's bridges



Presenting the Aerial Robotic Infrastructure Analyst (ARIA), a small drone that can take photographs and videos of bridges for structural inspection. ARIA is also capable of processing the data it collects to provide feedback and suggestions to inspectors. Find out more about ARIA at The [ARIA Project website](#).

Source: [Phys.org](#) (14 December 2016)

INDUSTRY UPDATE

Transportation invests for a new future: Automation is rapidly accelerating and disrupting the industry



Transportation companies are now focusing investments on digital technology and automation. [The report](#) from PWC provides an insight on the developments and trends in the Transportation industry.

Source: [Strategy and PWC.com](#) (1 December 2016)

INTERNET OF THINGS (IoT)

How the Internet of Things Will Impact Travel in 2017 and Beyond



It is reported that the travel industry is already taking the lead in IoT investment. Read further on the coming opportunities and challenges of IoT development in the travel industry.

Source: [Skrift.com](#) (19 December 2016)

MIGRATION

Brexit by the numbers: the fear of brain drain

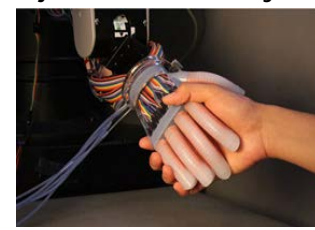


Brexit has thrown British universities into great uncertainties, with impacts in employment, funding and collaborations, especially in the area of research. Over 31,000 of non-British EU academics may no longer have the right to reside in the UK and this may seriously pose a threat of brain drain in UK universities.

Source: [Nature](#) (14 December 2016)

PHOTONIC TECHNOLOGY

Here's a robotic hand that handles objects as delicately as a human



This robotic hand relies on photonic sensing technology to obtain a high level of sensitivity that enables itself to recognize the shape, softness and overall texture of the objects it touches. Also read the research paper at [Science Robotics](#).

Source: [Recode.net](#) (18 December 2016)

ROBOTICS

MIT Develops Shapeshifting, Modular Robot



Imagine if we could easily cut and connect materials just like rolls of tapes or strings to create custom-built interfaces, tools and wearables. This is what ChainFORM, a chained modular hardware system sets out to do. Also read more in this [paper](#).

Source: [Engineering.com](#) (14 December 2016)

SENSORS

Graphene and Silly Putty Creates a Super-Sensitive Strain Sensor



When placing graphene on a soft polymer like Silly Putty, this enables it to be hundred times more sensitive than current strain sensors. Eventually this can be used in pulse and blood pressure measurement devices.

Source: [IEEE Spectrum](#) (14 December 2016)

SUPPLY CHAIN

Supply chains are evolving, but is our approach to supply chains?



The digital revolution triggered over the last decade requires a change of mindset, and business processes, operations and supply chain management are fast responding and adapting to this demand.

Source: [CIO Blog](#) (12 December 2016)

WEARABLE DEVICES

North American Wearables and Other Devices Market



The wearable device market is predicted to grow rapidly over the next 6 years in USA and Canada. Gain insight into what kinds of products and which players are expected to be part of this growth.

Source: [Frost & Sullivan](#) (15 December 2016)

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