

# Weekly Discovery

We SHARE to inspire and ignite ideas!

19 February 2018 - 23 February 2018

## AVIATION

**NASA's 'Quiet Supersonic' Plane Could Change Airports Forever**



NASA's is using modern materials and engineering techniques to achieve quiet supersonic planes, we may soon see new and silent fighter jets in the skies!

Source: [Live Science](#) (15 February 2018)

## BIOLOGY

**'Acoustic Lighthouses' Could Prevent Birds from Hitting Buildings**



Researchers found that despite window markings and lights, birds still knock into buildings. By using a mesh net and a loud sound 1 meter away from the net, birds are less likely to crash into buildings.

Source: [Science](#) (17 February 2018)

## BUILT ENVIRONMENT

**Personal Comfort Models – A New Paradigm in Thermal Comfort for Occupant-Centric Environmental Control**



A new personal comfort model which predicts an individual's temperature preference by learning through data collected from Internet of Things devices and machine learning.

Source: [Building and Environment](#) (12 January 2018)

## ELECTRONICS

**New Breakthrough Could Put Artificial Intelligence Inside Your Blender**



A new chip runs neural computations 8 times faster while consuming 95% less power. Paving the way for battery-based gadgets operating neural networks locally without power inputs from the grid.

Source: [Forbes](#) (14 February 2018)

## ENERGY HARVESTING

**Breakthrough Invention Creates Electricity from Daily Temperature Swings**



Presenting a new gadget that purely relies on the day-night temperature fluctuations to generate electricity and is able to work under any weather conditions. Read more at [Nature](#).

Source: [Silicon Republic](#) (17 February 2018)

## ENTREPRENEURSHIP

**The Ultimate Startup Guide**



Get great insights from this special compilation, featuring stories of eBay's founder Pierre Omidyar, a quick digestible checklist from an investor and many more, to bring your company to the next level.

Source: Inc. (Dec 2017 / Jan 2018)  
Available @ SUTD Library (Call Number HD2346 INC)

## HEALTHCARE

**Japanese Researchers Develop Ultrathin, Highly Elastic Skin Display**



This devices fits snugly on the skin and can show the moving waveform of an electrocardiogram recorded by a breathable, on-skin electrode sensor. Also read about [motion sensors that track stroke survivors](#).

Source: [EurekAlert!](#) (17 February 2018)

## INTERNET OF THINGS

**From Smart Cities to Smart Countries: Cisco's CDA Program Fosters Economic Opportunity**



Learn about how Cisco System's Country Digital Acceleration (CDA) programme plans to address country digitisation and how it partnered with various countries to advance their national digital agendas.

Source: [Forbes](#) (16 February 2018)

## LEADERSHIP

**Lessons in Optimism**



CEOs, Directors and successful people share on their views on optimism for the future and how they stay optimistic at work when leading others to achieve.

Source: Fast Company (February 2018)  
Available @ SUTD Library (Call Number HF5001 FAS)

## LEAN MANUFACTURING

**Musk Thinks Tesla Will School Toyota on Lean Manufacturing; Fixing Model 3 Launch Would Be a Start**



Tesla founder Elon Musk opines that his vision of lean management, which employs more robots and puts more cars in the assembly lines, works more efficiently compared to Toyota's approach.

Source: [Forbes](#) (16 February 2018)

## MACHINE LEARNING

**Google's New AI Algorithm Predicts Heart Disease by Looking at Your Eyes**



Can you imagine by simply scanning your eyes doctors are able to tell your age, blood pressure and cardiovascular risks? Read on and learn how machine learning is used to achieve this through analysis of the eye scans. Also read more at [Nature](#).

Source: [The Verge](#) (19 February 2018)

## MOBILE USAGE

**Surviving Day Without Smartphones**

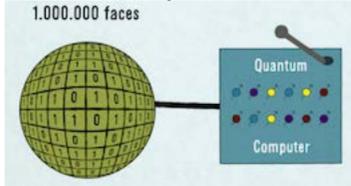


Learn about the influence of smart phones on young adults and how the technology makes human beings more dependent and at the same time more "lonely".

Source: MIT Sloan Management Review (Winter 2018)  
Available @ SUTD Library (Call Number HD28 MIT)

## QUANTUM COMPUTING

**Silicon Qubits Show Promise for Quantum Computers**

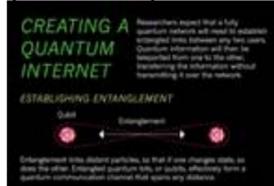


The latest advances and breakthroughs in silicon qubits allow supercomputers to superimpose two or more logical states - "0" or "1" - at one time. Also read two Nature publications: [Article 1](#) & [Article 2](#).

Source: [nanotechweb](#) (15 February 2018)

## QUANTUM INTERNET

**The Quantum Internet Has Arrived (and It Hasn't)**



Will quantum internet be around the corner? A comprehensive account on the quantum modes of communications in chronological order tells us it may yet to arrive.

Source: [Nature](#) (14 February 2018)

## SENSORS

**Tissue Paper Sensors Show Promise for Health Care, Entertainment, Robotics**



This disposable and wearable sensor made from toilet tissue can detect a person's pulses, blinks of an eye and even heartbeats.

Source: [Engineering Jobs](#) (13 February 2018)

## TRANSPORTATION

**Future of Smart Mobility—Key City Profiles, 2017**



Learn how people could possibly select their mode of transport to reduce travel time, save energy and limit emissions via smart technologies. A number of cities are featured as examples.

Source: [Frost & Sullivan](#) (15 February 2018)

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