

Weekly Discovery

We SHARE to inspire and ignite ideas!

18 June 2018 - 22 June 2018

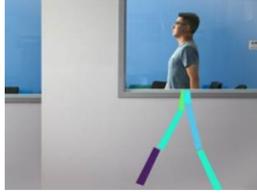
ARCHITECTURE
"Biodomes" in the UAE's AI Hajar Mountains Will Promote Ecotourism



Learn about "Biodomes" that intend to meet the needs of increased UAE tourist activities in natural areas, leaving nature untouched and preserved.

Source: [Archdaily](#) (15 June 2018)

ARTIFICIAL INTELLIGENCE
This AI Can See People Through Walls. Here's How.



This MIT-born system is able to monitor human movements through walls using radio waves for detection and artificial intelligence for interpretation. It has already been applied to overseeing Parkinson's patients at home.

Source: [Popular Science](#) (15 June 2018)

AI & CANCER DETECTION
Chinese Search Giant Baidu Creates an Open-Source A.I. for Detecting Cancer



Baidu's AI that detects cancer from biopsy images was the victor when pit against a professional pathologist as well as the algorithm program winner of a cancer detection challenge.

Source: [Digital Trends](#) (18 June 2018)

AI & SPACE
GLACiAR, an Open-Source Python Tool for Simulations of Source Recovery and Completeness in Galaxy Surveys



Can we use AI to estimate the completeness and selection function in galaxy surveys? Have a look at the 'Logic Diagram of GLACiAR's code structure'.

Source: [Publications of the Astronomical Society of Australia](#) (18 June 2018)

ARTIFICIAL VISION
DeepMind Self-Training Computer Creates 3D Model from 2D Snapshots



This [self-training vision system](#) developed by DeepMind can create a full 3D model based on only a couple of 2D captures. Applications include robotic vision and virtual reality simulation. Please click [here](#) to sign up for a FT login.

Source: [Financial Times](#) (15 June 2018)

BIOMEDICAL DEVICE
'Therepi' Device Delivers Drugs to the Heart



An implantable device delivers drugs directly to damaged heart tissue instead of the current systemic delivery, where multiple doses are required before it starts working. Read more at [Nature Biomedical Engineering](#).

Source: [Physics World](#) (13 June 2018)

CARBON DATING
New Technology Halves Carbon Dating Time



Scientists have developed a Positive Ion Mass Spectrometry (PIMS) system which is twice the speed of traditional radiocarbon dating techniques. This will revolutionise the whole carbon dating industry.

Source: [BT.com](#) (19 June 2018)

CYBERSECURITY
Modern Cybersecurity Demands a Different Corporate Mindset

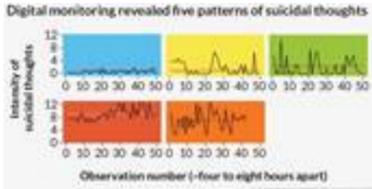


Source: Information Week

Cybersecurity threats are growing but companies are not putting enough emphasis until they are attacked. A shift in the mindset from technology-based defenses to more proactive approaches that encompass technology, process and user education is the way to go.

Source: [Dark Reading](#) (15 June 2018)

DIGITAL TECHNOLOGY
Phone Apps Are Helping Scientists Track Suicidal Thoughts in Real Time



The rise of digital technology and smartphone applications allows the detection of suicidal thoughts in real-world settings and subsequent alerts of such cases.

Source: [Science News](#) (18 June 2018)

DNA SYNTHESIS
Faster, Cheaper, Better: A New Way to Synthesize DNA



Scientists have developed a new method of synthesising DNA which is lower in cost, faster in production and more precise than the current process which has been around for the last 40 years.

Source: [FurekAlert!](#) (18 June 2018)

ENTREPRENEURSHIP
Meet the Startup That's Digitizing Vietnam & Building a Nationwide Smart Community



An interesting case study sharing insights on how a start-up that once had trouble securing funding has experienced a twist of fate, growing into a company with 40 employees and huge plans of digitising Vietnam.

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

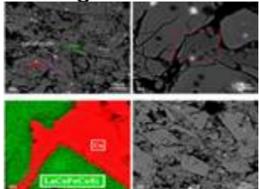
HOUSING LAYOUTS
How They Live



Have a quick glance at the various housing unit plans from around the world including Japan, USA, Singapore, China, Zambia, Philippines, and Vietnam. What can we learn and adapt from these snapshots of housing unit designs?

Source: The Singapore Architect (May 2018)
 Available @ SUTD Library (Call Number NA1 SIN)

MATERIALS SCIENCE
Novel Processing of Cu-Bonded La-Ce-Fe-Co-Si Magnetocaloric Composites for Magnetic Refrigeration by Low-Temperature Hot Pressing



Magnetic refrigeration is known for its environmentally friendly and energy-efficient technology. A novel route has been identified for processing and preparing bulky composites.

Source: [MRS Communications](#) (14 June 2018)

OPTICAL DISK
Next-Gen Optical Disk Set to Take Stock of Power Hungry Data Centres



Researchers from RMIT and China's Wuhan Institute of Technology have combined gold nanorods and glass to form a hybrid glass matrix material, which can be used in a high capacity optical disk capable of holding data for more than 600 years.

Source: [Pace](#) (18 June 2018)

SMART HOMES
Pretty Smart Home: Smart Technology Devices Designed with Style



Get a flavour of the latest smart home products on the market that are both well functional and beautifully designed, from entertainment system and water filter to security camera and trash receptacle.

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

WORLD ECONOMY OUTLOOK
The World in 2050: How Will the Global Economic Order Change?



Gain insight into how the world is changing, which economies will lead the way, policies that will affect change, business opportunities and drivers of growth.

Source: [PwC](#) (February 2017)

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