

Weekly Discovery

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1 APRIL 2019 - 5 APRIL 2019

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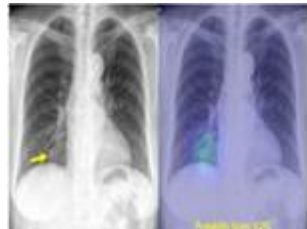
AI & HEALTHCARE
Artificial Intelligence Group Deepmind Readies First Commercial Product



"DeepMind, the British artificial intelligence group, has built a working prototype of a device that can diagnose complex eye diseases in real time, in a major step towards the Alphabet-owned company's first medical device." Click here to [register](#) for your FT account.

Source: [Financial Times](#) (31 March 2019)

AI & HEALTHCARE
SNUH Uses Lunit's AI Platform to Diagnose Chest Diseases



"... an AI-assisted diagnostic system which can detect all four major chest diseases using an X-ray image."

Source: [Korea Biomedical Review](#) (1 April 2019)

ARCHITECTURE
How to Promote Lifelong Learning, Productivity, and Meaningfulness in Architecture



"The era of personalization is automatically bringing the attention to human beings in almost every discipline. From health gadgets like shoes that adjust to your feet and track your posture to devices that reproduce songs that better match with your taste and mood. It is now time also for architecture to understand and adapt to its users."

Source: [ArchDaily](#) (31 March 2019)

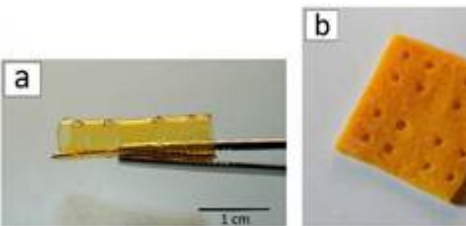
ARTIFICIAL INTELLIGENCE
New Research Finds Artificial Intelligence Can Predict Premature Death



"Nottingham's team of healthcare data scientists and doctors have developed and tested their system of computer-based ML algorithms to predict the risk of early death due to chronic disease."

Source: [Forbes](#) (29 March 2019)

BIOENGINEERING
Bioengineers Developed 3D Structures from Crab Shells to Replace Damaged Tissues



"A team of scientists from Sechenov First Moscow State Medical University used 3D printing to create biocompatible structures on the basis of chitin obtained from crab shells."

Source: [FurekAlert!](#) (1 April 2019)

DATA SCIENCE
11 Ways to Avert a Data-Storage Disaster



"Ultimately, your data need to be available in the future. So, think about 'future you'..."

Source: [Nature](#) (1 April 2019)

DATA SCIENCE
Making Long Queues a Thing of the Past Is the Goal for Two Computing Science Master's Students at Hong Kong University of Science and Technology



"Steve Ku and Wu Aoyu are using real-time human traffic flow technology in a bid to cut waiting times at cafeterias, bus stops and even the library."

Source: [South China Morning Post](#) (31 March 2019)

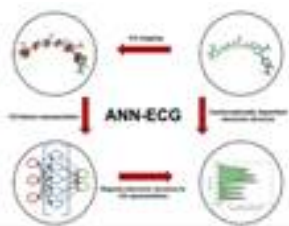
DESIGN
5 Ways to Get the Most Out of Your Design Team



"At the most design-mature companies, the entire organization - including the executive team - participates in design. This means that key stakeholders from outside the design team get involved in user research, work in shared software, and develop product ideas jointly."

Source: [Harvard Business Review](#) (1 April 2019)

ELECTRONICS
Developing New Organic Materials for Electronics



"A scientist has new ways of accelerating the development of new organic materials for electronics. The new approaches could have applications in other types of materials science research."

Source: [Science Daily](#) (22 March 2019)

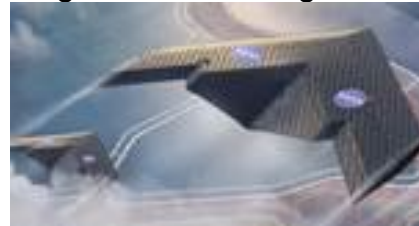
ENERGY
Scientists Create Artificial Cells That Make Their Own Energy



"Researchers have created artificial cells in a lab that create energy the same way plants do: through photosynthesis."

Source: [Earth.com](#) (31 March 2019)

INNOVATION
These NASA and MIT Researchers Created a Shape-Shifting Airplane Wing That Could Change Air Travel



"A clever new wing design could make both air travel, plane maintenance, and plane production more efficient - and that could be good news for everyone."

Source: [Fast Company](#) (1 April 2019)

MATERIALS SCIENCE
Copper-Based Alternative for Next-Generation Electronics



"The new medium, made of copper nanoparticles (very small copper-based structures) has promising applications in the production of electronic devices that would otherwise depend on expensive gold and silver counterparts."

Source: [Tohoku University](#) (27 March 2019)

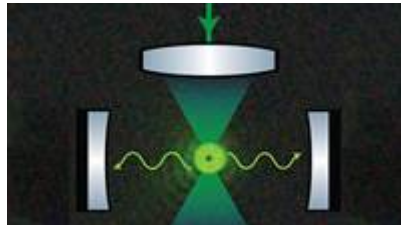
PAVILION
Decay by Design: Organic Matter, 3D-Printed by a Robot and Shaped by Water



"The aguahoja pavilion - this tall, honey-skinned cocoon structure - is composed of the most abundant biopolymers on the planet."

Source: [designboom](#) (28 March 2019)

QUANTUM PHYSICS
Quantum Optical Cooling of Nanoparticles



"When a particle is completely isolated from its environment, the laws of quantum physics start to play a crucial role. One important requirement to see quantum effects is to remove all thermal energy from the particle motion, i.e. to cool it as close as possible to absolute zero temperature."

Source: [University Wien](#) (29 March 2019)

ROBOTICS
Toyota Robot Can't Slam Dunk but Shoots a Mean 3-Pointer



"Toyota Motor Corp.'s robot, called Cue 3, computes as a three-dimensional image where the basket is, using sensors on its torso, and adjusts motors inside its arm and knees to give the shot the right angle and propulsion for a swish."

Source: [The Associated Press](#) (1 April 2019)

VIRTUAL REALITY
Ever Dream of Controlling Robot Swarms? This New Virtual Reality Headset Could Help



"Robot swarms could revolutionize everything from search and rescue missions to mining, but figuring out how to oversee so many moving parts is tough. A new approach lets people control tiny, semiautonomous robots using VR."

Source: [Science](#) (29 March 2019)