SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

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18 May 2020 – 22 MAY 2020

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ARCHITECTURE

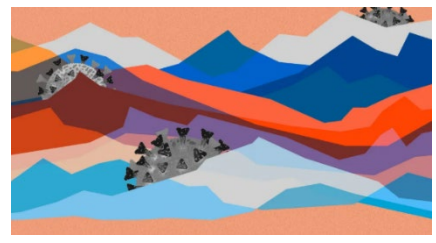
Architect Rem Koolhaas Says Redesigning Public Spaces Was Necessary Before the Pandemic

"Airports are just one among the many, many public spaces that may have to be rethought, reorganized and redesigned in the era of pandemics, and Koolhaas believes it is way overdue. Also on his back-to-the-drawing-board list: cities, especially those that have no purpose but to attract people. "

Source: TIME (14 May 2020)

ARTIFICIAL INTELLIGENCE

We Built An AI-Powered Search Tool For 60,000 COVID-19 Research Papers

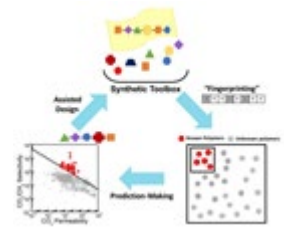


"COVIDScholar includes tools that pick up subtle clues like similar drugs or research methodologies to recommend relevant research to scientists."
Also read Artificial Intelligence Equipped Supercomputer Mining for COVID-19 Connections in 18 Million Research Documents

Source: Fast Company (14 May 2020)

BIG DATA

Using Big Data to Design Gas Separation Membranes



"Columbia engineers apply machine learning techniques to narrow down and speed up the development of new materials for removing CO2 from the air."

Source: Columbia University (15 May 2020)

BIOMEDICAL MATERIAL

New Bone-Graft Biomaterial Gives Patients A Nicer Smile And Less Pain

"A new recipe for a bone-graft biomaterial that is supercooled before application should make it easier to meet dental patients' expectation of a good-looking smile while eliminating the pain associated with harvesting bone from elsewhere in their body. Read more on Wiley Online."

Source: Tohoku University (15 May 2020)

BLOCKCHAIN

Could Blockchain Technology Be Used To Protect Researchers Working Together In A Pandemic?

" No one wants to be the person who finds a cure for COVID-19, only to have the credit stolen from them by some other researcher. In their paper, the researchers suggest a tool that could help: blockchain technology. Read more in Science."

Source: Techxplore (15 May 2020)

CITIES

Growth Of Cities Could Boost Mosquito-Borne Diseases

"The implication is that if we have rapid urbanization in areas with these dry seasons, you are going to have a proliferation of these strains that bite humans," says Elaine Ostrander, a geneticist at the National Human Genome Research Institute

Source: Science (15 May 2020)

DEVICES

WalkWise Walker Attachment Helps Seniors Stay Safe and Mobile

"Falls have serious consequences for seniors, especially those who live alone. Medical alert devices can notify emergency services, but they are not always worn. In addition, they do not address fall prevention by encouraging active lifestyles and physical strengthening."

Source: Medgadget (19 May 2020)

ELECTRONICS

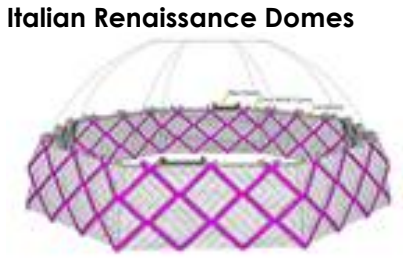
Tiny Pop-Up Devices Work Relentlessly, Even Under Extreme Pressure

"Texas A&M researchers found that miniature electronics based on the Japanese art of kirigami are ideal for pressure sensing because of their ability to be repeatedly compressed."

Source: Texas A&M University (14 May 2020)

ENGINEERING

Double Helix Of Masonry—Researchers Discover The Secret Of Italian Renaissance Domes

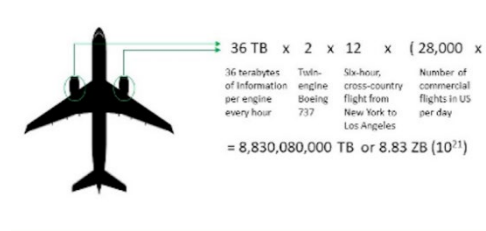


"Their study is the first ever to quantitatively prove the physics at work in Italian renaissance domes and to explain the forces which allow such structures to have been built without formwork typically required, even for modern construction. Read more from Science Direct."

Source: TechXplore (15 May 2020)

IOT

Airlines Use IOT Playbook to Battle COVID-19



"For example, existing and newer IR sensor systems might be used to scan the health vitals of passengers disembarking a plane. Gathering such mission critical data will require a migration of analytic processing capabilities from the cloud to the edge to reduce latency and allows for more immediate response times."

Source: Design News (18 May 2020)

MANUFACTURING

How Manufacturers Can Power Through Disruption And Gain Competitive Advantage

"According to PwC's Global Crisis Center, most crises require short-term reactions around mobilization, medium-term stabilization efforts, and strategizing for long-term and permanent transformation."

Source: PWC (5 May 2020)

PRODUCT DESIGN

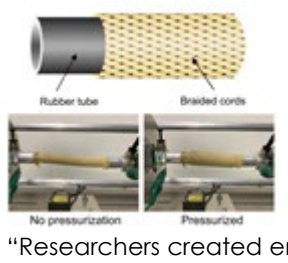
MIT Engineers Propose a Safer Method for Sharing Ventilators

"Columbia engineers apply machine learning techniques to narrow down and speed up the development of new materials for removing CO2 from the air."
Also read This 3D Printed Ventilator Could Support Up to 20 COVID-19 Patients at One Time

Source: MIT News (18 May 2020)

SOFT ROBOTICS

A Soft Touch For Robotic Hardware



"Researchers created embedded sensors, to replace rigid sensors, that offer the same functionality but afford the robot greater flexibility. Soft robots can be more adaptable and resilient than more traditional rigid designs. The team used cutting-edge machine learning techniques to create their design."

Source: Tokyo University (15 May 2020)

TECHNOLOGIES

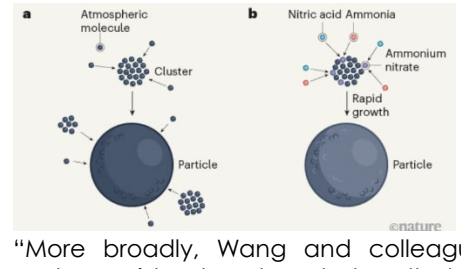
COVID-19 Tests Compared

"In an important, comprehensive, and timely review, an expert team from the University of California Berkeley details the methodologies used in nucleic acid-based tests for detecting the presence of SARS-CoV-2, the virus that causes COVID-19. " Read more in article.

Source: EurekAlert! (19 May 2020)

URBAN POLLUTION

Airborne Particles Might Grow Fast In Cities



"More broadly, Wang and colleagues' work provides key knowledge that will inform air-quality policy as the chemical composition of urban atmospheres changes in the future. Most notably, sulfur dioxide emissions are being reduced across many cities."

Source: Nature (13 May 2020)

WOUND PATCH

Wound-Healing Patch Of Blue-Green Algae Mends Skin Quickly

"A skin patch made of living blue-green algae speeds up wound healing in mice, and may help to treat chronic wounds in people with diabetes. Read more in Science Advances."

Source: New Scientist (15 May 2020)

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