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ART & TECHNOLOGY

Best of 2019: Top 10 Technology-Inspired Art Projects of the Year

"Ultimately, there's no denying technology's influence on the arts today. Here's a look at some of the best tech-inspired art projects of 2019."

Source: My Modern Met (17 December 2019)

ARTIFICIAL INTELLIGENCE

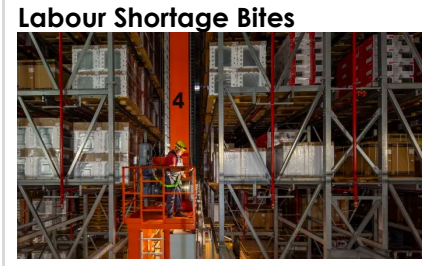
AIs Direct Search for Materials Breakthroughs

"Decision-making algorithms transform how robots evaluate and synthesize solar cells and more ... What used to take us 9 months now takes us 5 days."

Source: Science (13 December 2019)

AUTOMATION

Polish Companies Turn to Robots as Labour Shortage Bites

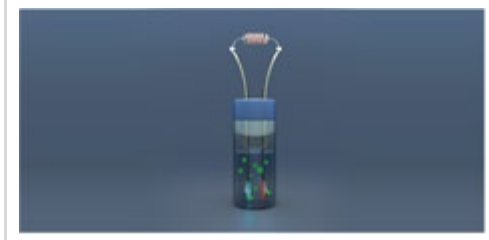


"To ease the pressure and boost its efficiency Amica has also invested in a bevy of robots for the factory next to its warehouse, where its ovens and washing machines are made. Mr Bilik said it would spend another 250m zlotys on automation over the next five years."

Source: Financial Times (17 December 2019)

BIOENGINEERING

Plastic Biosensor Finds Sweet Success

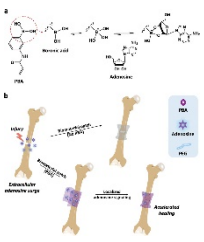


"An electronic biosensor powered using the glucose in bodily fluids has been developed by KAUST researchers ... The plastic biosensor could act as a continuous monitor of key health indicators, such as blood sugar levels in diabetes patients."

Source: KAUST (16 December 2019)

BIOMATERIALS

Bone Bandage Soaks Up Pro-Healing Biochemical to Accelerate Repair



"Researchers at Duke University have engineered a bandage that captures and holds a pro-healing molecule at the site of a bone break to accelerate and improve the natural healing process."
Read more at Advanced Materials.

Source: Science Daily (13 December 2019)

BLOCKCHAIN

China Combines AI and Blockchain to Be Judge and Jury

"Internet courts shall recognise digital data that are submitted as evidence if relevant parties collected and stored these data via blockchain with digital signatures, reliable timestamps, and hash value verification or via a digital deposition platform, and can prove the authenticity of such technology used."

Source: Coin Rivet (16 December 2019)

CITIES

Are Architects and Developers Finally Addressing the Same Global Concerns?

"Architects and developers have always been on opposite ends of the construction world. While the first wanted to create dreamy spaces, the latter just wanted to cater to the basic needs. Read on to discover a newly developed understanding between the different parties, highlighted through their most prominent projects."

Source: ArchDaily (13 December 2019)

DESIGN FOR SUSTAINABILITY

Design Behaviour for Sustainability

"An international expert panel probes how engineers, architects and behavioural scientists can work together to learn about design behaviour for sustainability — and what all interested scholars and practitioners might learn from it."
Also read Twenty Questions About Design Behavior for Sustainability.

Source: Nature Sustainability (9 December 2019)

FACIAL RECOGNITION

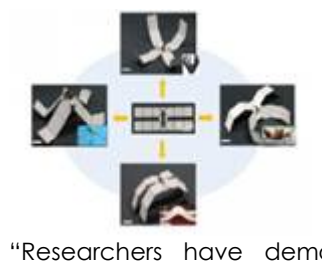
3 Major Concerns Around Facial Recognition Technology – and How to Address Them

"In this article I want to look at three of the biggest concerns around facial recognition and the boundaries we can put in place to protect our personal data and feel more comfortable about this exciting new technology."

Source: Silicon Canals (17 December 2019)

MATERIALS SCIENCE

Researchers Make Robots from Self-Folding Kirigami Materials

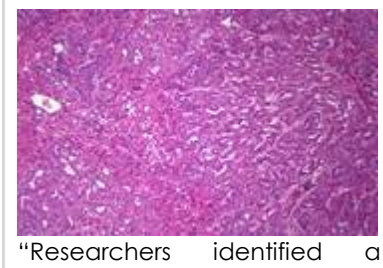


"Researchers have demonstrated how kirigami-inspired techniques allow them to design thin sheets of material that automatically reconfigure into new two-dimensional (2D) shapes and three-dimensional (3D) structures in response to environmental stimuli."

Source: EurekAlert! (16 December 2019)

MATHEMATICS

Math Equation Predicts and Detects Liver Cancer



"Researchers identified a sudden transcriptomic switch that turns healthy liver tissue cancerous. The finding was used to develop a quantitative analytical tool that assesses cancer risk in patients with chronic liver disease and to predict tumor stages and prognosis for patients with liver cancer."

Source: UC San Diego (16 December 2019)

ROBOTICS

Video Friday: This Robot Is Learning About Personal Space to Avoid Pesky Humans

"Programmed with a personal space mode, the humanoid robot Digit, from Agility Robotics, tries to keep its distance from an annoying engineer."

Source: IEEE Spectrum (13 December 2019)

TECHNOLOGY

G-mee: Radical New Technology to Keep Young Children Safe Online

"To address the problem for their children, Charlie and Rachael designed g-mee - a smart device that delivers all the things that users want in a smart device and takes out the things they don't."

Source: 9 News (17 December 2019)

TRANSPORT DESIGNS

Dezeen's Top 10 Transport Designs of 2019

"Featuring expansive passenger windows and a curved glass nose, the Laview train is designed to allow passengers to enjoy 'large panoramic views'."

Source: Dezeen (13 December 2019)

URBAN TRANSPORT

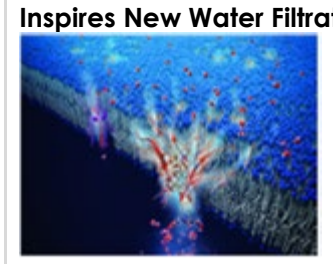
Smart Intersections Could Reduce Autonomous Car Congestion

"A new study by Cornell researchers developed a first-of-its-kind model to control traffic and intersections in order to increase car capacity on urban streets, reduce congestion and minimize accidents."

Source: Cornell University (16 December 2019)

WATER

How We Transport Water in Our Bodies Inspires New Water Filtration Method



"A multidisciplinary group of engineers and scientists has discovered a new method for water filtration that could have implications for a variety of technologies, such as desalination plants, breathable and protective fabrics, and carbon capture in gas separations."

Source: The University of Texas at Austin (16 December 2019)

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