

Weekly Discovery

We SHARE to inspire and ignite ideas!

2 – 6 January 2023

AI DESIGN
'synthetic Architectural Dreams' Explores The Revolutionary Future Of AI-Generated Design



"'Synthetic Architectural Dreams' is a Midjourney-generated conceptual architectural series that ponders the implications of these technological advancements on the field of architecture. Likening this development to the previous shock created by computer-aided design at the beginning of the 21st-century, the project considers the revolutionary future of AI-generated design."

Source: [Designboom](#) (2 January 2023)

AIR PURIFICATION
A Type Of Simple, DIY Air Filter Can Be An Effective Way To Filter Out Indoor Air Pollutants

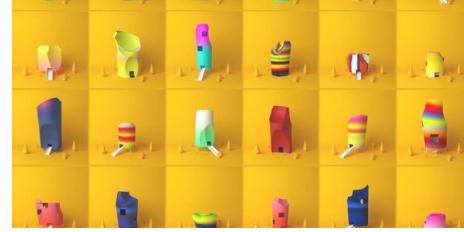


"A team of researchers from Brown University's School of Public Health, Brown's School of Engineering and Silent Spring Institute found that simple air filtration devices called Corsi-Rosenthal boxes are effective at reducing indoor air pollutants."

The study, which analyzed the effectiveness of Corsi-Rosenthal boxes installed at the School of Public Health to help prevent the spread of COVID-19, is the first peer-reviewed study of the efficacy of the boxes on indoor pollutants, according to the authors."

Source: [BROWN](#) (23 December 2022)

ARCHITECTURE
Can Architecture Be Immaterial?



"The new technologies of the digital world caused changes in architecture and urbanism. New materials, new construction techniques, and new ways of manufacturing and building have changed how we design and think about construction. Besides, these technologies reveal possibilities of interaction between society and architecture, transforming the understanding of architecture and its purpose."

Source: [Archdaily](#) (31 December 2022)

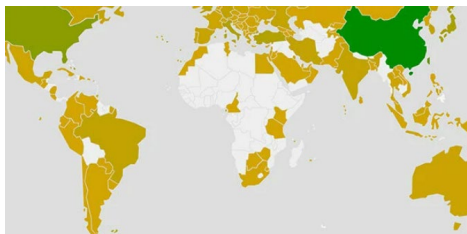
CARBON
This Startup Captures CO2 By Injecting It Straight Into Volcanic Rock



"In a remote, barren part of northern Kenya, a new pilot project will soon begin injecting CO2 more than 1,300 feet underground into volcanic rocks, where the greenhouse gas will also turn to stone. It's a process that's already been proven to work in Iceland, where a carbon removal plant pulls CO2 from the atmosphere and then pumps it underground. Now Kenya, which has similar geology, wants to build up a carbon removal industry of its own."

Source: [FastCompany](#) (3 January 2023)

DESIGN
Designboom Announces World Design Rankings 2022



"The WDR – world design rankings illustrates the latest and state-of-the-art in the design and architectural industries to economists, journalists and other industry experts. The goal is to contribute and enrich the global design culture by advocating, rewarding and highlighting the best of creativity."

Source: [designboom](#) (1 December 2023)

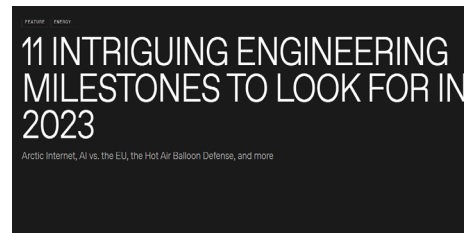
DESIGN
Twelve Architecture Projects To Look Forward To In 2023



"To kickstart the new year, we take a look at 12 of the most interesting and unusual architecture projects expected to complete in 2023, including the renovation of a brutalist pyramid and a forest-like library."

Source: [Dezeen](#) (1 December 2023)

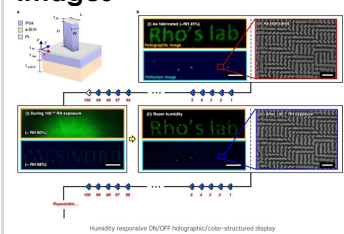
ENGINEERING
11 Intriguing Engineering Milestones To Look For In 2023



"Arctic Internet, AI vs. the EU, the Hot Air Balloon Defense, and more."

Source: [IEEE](#) (30 December 2022)

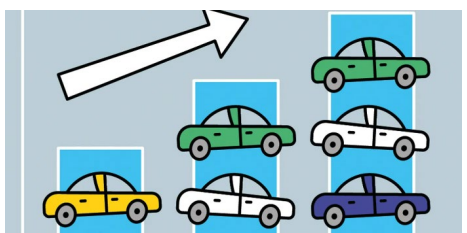
NANOIMPRINTING
Nanoimprinting Technique for Humidity-Responsive Holographic Images



"A magical display that projects holographic images that change when in contact with water has been developed. This new technology increases the possibility of commercialization as it can infinitely imprint holographic images."

Source: [POSTECH](#) (21 December 2022)

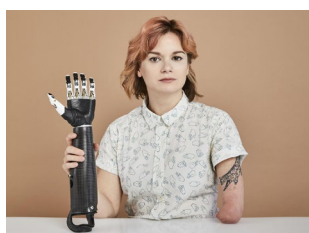
ROBOTICS
Road Robots Are Coming to the Rescue



"DEVELOPING CARS THAT can drive without a human is a unique challenge. There are many kinds of events that fully autonomous vehicles have to be prepared to handle in milliseconds, and mistakes can have serious consequences. Solving these problems requires innovation across a number of fields, such as AI and machine learning, advanced sensors, simulation software that can mimic real-world driving, and computing frameworks to evaluate the system's performance."

Source: [Wired](#) (31 December 2022)

ROBOTICS
The Top 10 Robotics Stories of 2022



"2022 was a huge year for robotics. Yes, I might say this every year, and yes, every year I might also say that each year is more significant than any other. But seriously: This year was the best. After a tough pandemic (which, let's be clear, is still not over), conferences and events have started to come back, research has resumed, and robots have continued to make their way into the world. It really has been a great year."

Source: [IEEE](#) (15 December 2022)

TECHNOLOGY
Top Tech 2023



"Each January, the editors of IEEE Spectrum offer up some predictions about technical developments we expect to be in the news over the coming year."

Source: [IEEE](#) (31 December 2022)

TELECOMMUNICATION
Electronic Warfare, Hackable 5G Networks, and Cell Towers on the Moon: IEEE Spectrum's biggest telecom headlines of 2022



"2022, like every year, saw the arrival of countless new telecom technologies. But it's those technologies that really swing for the fences that capture the imagination. That's why this year, IEEE Spectrum's readers spent their time learning about proposals to bring something like 5G to the moon, to change how the Internet's very core would be structured, and to finally solve an antenna design problem that has persisted for over 80 years."

Here are the top stories that caught our readers' eyes in 2022"

Source: [IEEE](#) (29 December 2022)

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