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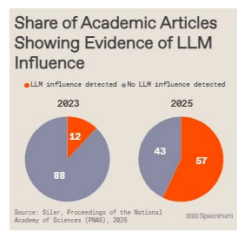
AI • Engineering • Computing
A computer scientist breaks through a limit that stood since 1996



A new algorithm improves how efficiently graph-based systems can approximate short distances between vertices. Its theoretical guarantee revisits a long-standing performance boundary, with implications for large networks and data-processing tools.

Indian Institute of Technology Gandhinagar | 30 October 2026

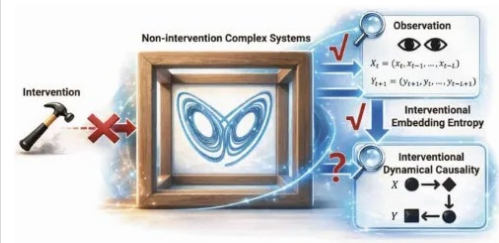
AI • Cybersecurity • Research Integrity
I Used AI to Fake a Scientific Paper. Here's What Happened



IEEE Spectrum tested both prompt-written and autonomous-AI-generated research manuscripts with a journal's cooperation. Automated checks identified suspect references and evidence problems, highlighting how publishers must protect research integrity as automated science becomes more capable.

IEEE Spectrum | 28 October 2026

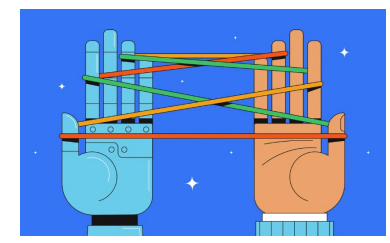
AI • Data Science • Complex Systems
Scientists can now uncover true cause and effect in complex systems — without touching them



A computational framework uses interventional embedding entropy to infer aspects of causal influence from time-series observations, potentially supporting analysis when controlled intervention is impractical, such as climate or neural systems.

Innovation Press | 30 October 2026

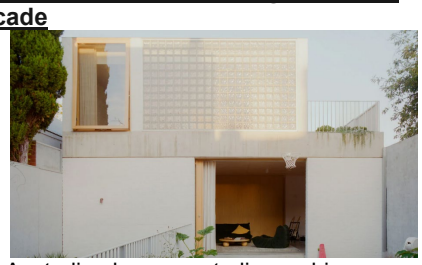
AI • Engineering • Systems Design
Systems Thinking Is Vital in the Age of AI



The article argues that automated search, coding and simulation do not remove the need for engineering judgment. System-level design still requires trade-offs, cross-disciplinary scrutiny and accountable decisions about safety, usability and deployment.

IEEE Spectrum | 28 October 2026

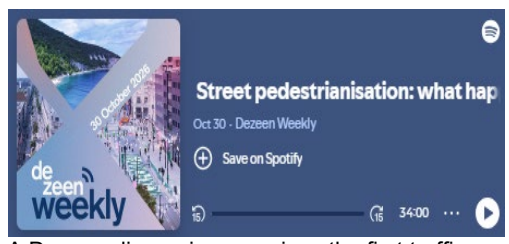
Architecture • Materials • Urban Infill
Olaver unveils multi-purpose Laneway Studio with "lantern-like" glass-block facade



An Australian laneway studio combines a translucent glass-block facade with a flexible programme for work and gathering. The compact infill project demonstrates how materials and filtered light can bring new uses into constrained urban sites.

Dezeen | 30 October 2026

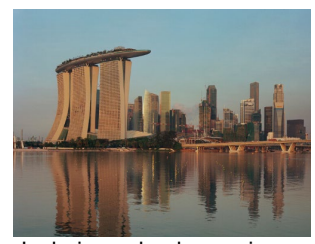
Cities • Urbanism • Pedestrian Public Space
Oxford Street pedestrianisation: what happens next?



A Dezeen discussion examines the first traffic-free phase of London's Oxford Street and the longer-term challenge of turning a major retail corridor into more welcoming pedestrian and public spaces.

Dezeen | 30 October 2026

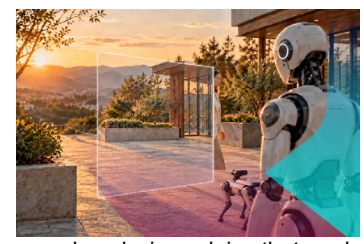
Cities • Sustainability • Flood Resilience
Planned Overflow: How Singapore Balances Floods, Canals, and Public Space



Singapore's drainage landscape is examined through parks and canals designed to absorb intense stormwater while serving ecological and recreational functions. Bishan–Ang Mo Kio Park demonstrates integrated flood and public-space design.

ArchDaily | 31 October 2026

Cybersecurity • AI • Robotics
Your Robot's Safety Functions Already Work. What If the Input Lies?



A sponsored analysis explains that a robot can obey its safety logic yet behave unsafely if manipulated sensor or context inputs are trusted. It argues for testing perception integrity, cyber risks and system-level safeguards together.

IEEE Spectrum / VicOne (Sponsored) | 27 October 2026

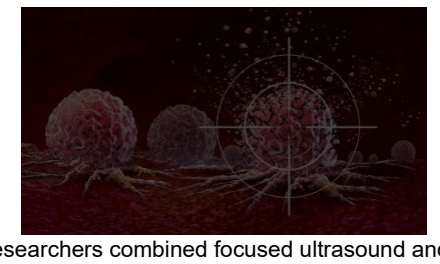
Engineering • Sustainability • Electric Aviation
How Beta Technologies Is Clearing the Runway for Electric Flight



Beta Technologies is developing electric aircraft alongside the charging and operational infrastructure needed for service. The report examines how battery range, airport networks and certification constrain the transition from prototypes to practical electric flight.

IEEE Spectrum | 28 October 2026

Health Tech • Sensors • Medical Engineering
Scientists use sound waves to deliver a new attack on deadly brain cancer



Researchers combined focused ultrasound and molecular delivery methods in laboratory models to explore a new way to treat glioblastoma. The work is experimental and should not be interpreted as a proven patient treatment.

University of Virginia | 1 November 2026

Materials • Sustainability • Circular Design
From Asbestos to Fungi: Eight New Materials Made from Waste and Living Matter



Eight material approaches show how recycling, biological growth and alternative processing can replace resource-intensive architectural components. The review focuses on both what new materials can do and the practical barriers to adoption.

ArchDaily | 27 October 2026

Sensors • Sustainability • Infrastructure
Autonomous Airships Keep Tabs on Energy Infrastructure



Uncrewed airships fitted with sensors are being explored for surveying power lines, pipelines and transport infrastructure. Persistent low-energy monitoring could supplement helicopter-based inspection, subject to operational and regulatory constraints.

IEEE Spectrum | 29 October 2026

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