

# Weekly Discovery

We SHARE to inspire and ignite ideas!

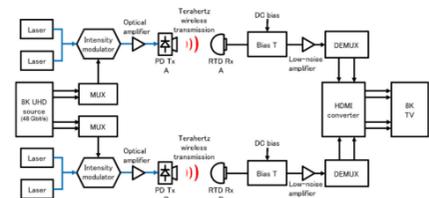
15 - 19 February 2021

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Artificial Intelligence & Data Science	Aviation	Cities
HealthCare	Robotics & Automation	Design & Innovation
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## 6G Terahertz Accelerates Beyond 5G Towards 6G



A team of researchers at Osaka University, together with Rohm Co., Ltd., has employed 300-GHz band terahertz waves as an information carrier that allows for wireless communications of 8K ultrahigh definition (UHD) video with a data rate of 48 Gbit/s under the JST CREST project

Source: [RESOU](#) (1 February 2021)

## CONSTRUCTION ROBOTICS Emerging Robotics Technology May Lead To Better Buildings In Less Time



"Purdue University innovators developed and are testing a novel construction robotic system that uses an innovative mechanical design with advances in computer vision sensing technology to work in a construction setting."

Source: [Purdue University](#) (9 February 2021)

## ELECTRON & ELECTRONICS Nanowire Could Provide A Stable, Easy-To-Make Superconducting Transistor



"Researchers developed a superconducting nanowire that could enable efficient, easy-to-make electronics. The advance could boost quantum computing, as well as magnetic sensors for applications in brain imaging and telescopes."

Source: [Science Daily](#) (11 February 2021)

## ENERGY Backpack Makes Loads Feel Lighter and Powers Electronics by Harvesting Energy From Walking



"A prototype backpack harvests energy from walking to power small electronics, and it makes loads feel lighter."

Source: [SciTechDaily](#) (13 February 2021)

## GROUPTHINK The Power Of Groupthink: Study Shows Why Ideas Spread In Social Networks



"New research co-authored by Berkeley Haas Asst. Prof. Douglas Guilbeault shows that large groups of people all tend to think alike, and also illustrates how easily people's opinions can be swayed by social media—even by artificial users known as bots."

Source: [BERKELEY](#) (8 February 2021)

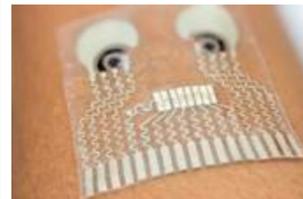
## HEALTHCARE New Surgery May Enable Better Control Of Prosthetic Limbs



MIT researchers have invented a new type of amputation surgery that can help amputees to better control their residual muscles and sense where their "phantom limb" is in space.

Source: [MIT News](#) (15 February 2021)

## HEALTHCARE WEARABLES New Skin Patch Brings Us Closer to Wearable, All-In-One Health Monitor



The first wearable device that monitors cardiovascular signals and multiple biochemical levels in the human body at the same time.

Source: [University of San Diego](#) (15 February 2021)

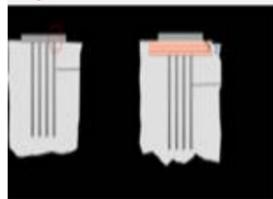
## HEALTHCARE World's largest COVID-19 Drug Trial Identifies Second Compound That Cuts Risk Of Death



The anti-inflammatory drug tocilizumab cut the death risk of people hospitalized with the disease, reduced their need for a mechanical ventilator, and shortened time spent in the hospital, investigators of the United Kingdom's Recovery trial announced today at a press conference.

Source: [Science](#) (11 February 2021)

## MATERIALS A Groundbreaking Solution? Polymers Can Protect Buildings from Large Fault Ruptures



"In this novel mitigation technique, the piles are disconnected from the building using an interposed layer of soil which is reinforced using geotextile layers."

Source: [EurekAlert!](#) (15 February 2021)

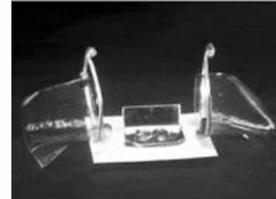
## MACHINE LEARNING A Machine-Learning Approach to Finding Treatment Options for Covid-19



"Researchers develop a system to identify drugs that might be repurposed to fight the coronavirus in elderly patients."

Source: [MIT News](#) (16 February 2021)

## ORIGAMI Origami Powered by Light



"When the polymer sheet is flat, the light animates it slowly, curving or curling over time. The researchers found that by forming the polymer into a curved shape, like a shell, the bending action happened much more quickly and generated more torque."

Source: [PIT UNIVERSITY](#) (10 February 2021)

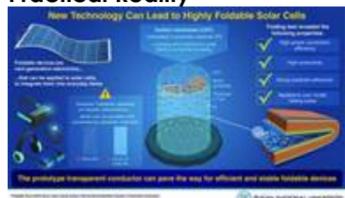
## SENSOR Unleashing The Potential Of The Mind



"Pison's neuromuscular sensor allows first responders to control digital interfaces, like robots, using tiny gestures such as finger movement."

Source: [MIT News](#) (14 February 2021)

## SOLAR TECHNOLOGY The Future of Solar Technology: New Technology from Pusan National University Makes Foldable Cells a Practical Reality



"With the recent development of foldable mobile phone screens, research on foldable electronics has never been so intensive. One particularly useful application of the foldable technology is in solar panels."

Source: [Cision](#) (11 February 2020)

## SUSTAINABLE MATERIALS Carrot Cement: How Root Vegetables And Ash Could Make Concrete More Sustainable



Researchers are now experimenting with root vegetables and recycled plastic in concrete to see whether this can make it stronger – and more sustainable – and even power streetlights or air pollution sensors.

Source: [Horizon](#) (11 February 2021)

## TECHNOLOGY New Technology Can Get Inside Your Head. Are You Ready?



"Gertrude the pig rooted around a straw-filled pen. She gave no notice to the cameras and onlookers. She also ignored the 1,024 electrodes eavesdropping on her brain. Each time Gertrude's snout found a treat in a researcher's hand, a musical jingle sounded. It signaled activity in nerve cells that control her snout."

Source: [Sciences News for Students](#) (12 February 2021)

## WOMEN IN TECH Female Tech Leaders: Q&A With Christina Babbitt of Red 6



I hope to continue to enhance the growth of the company and one day lead a Red 6 Communications team as we integrate our technology, Airborne Tactical Augmented Reality System (ATARS) into squadrons and platforms across all services and allied nations.

Source: [Innotechtoday](#) (9 February 2021)

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