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AI'S IMPACT ON ENGINEERING JOBS MAY BE DIFFERENT THAN EXPECTED

Artificial Intelligence (AI) is no longer a concept of the future it is a present day reality shaping how we live, work, and communicate. From smartphones and smart assistants to healthcare, finance, education, and transportation, AI is embedded in everyday systems that improve efficiency and decision-making. It helps automate routine tasks, analyze large amounts of data, and provide personalized experiences. As AI continues to evolve, it is transforming industries .. Read more

EVALUATION OF RECYCLED ASPHALT CONCRETE PAVEMENT REINFORCED WITH HEMP FIBER AS A SUSTAINABLE PAVEMENT SURFACE

The use of reclaimed asphalt pavement (RAP) and natural fibers in asphalt concrete (AC) has gained increasing attention as a sustainable alternative to conventional mixtures using virgin materials. However, comprehensive evaluations covering laboratory performance, field implementation, and environmental impact remain limited. This study evaluates AC mixtures incorporating RAP as coarse aggregate with hemp fiber reinforcement .. Read more

ENGINEERING THE FUTURE OF QUANTUM DEVICES

Quantum devices harness the principles of quantum mechanics to unlock powerful new capabilities in computing, data storage, sensing and beyond. Miniaturization and ruggedization of quantum devices drive the advance of quantum technologies, and as these technologies move closer to real-world applications, researchers face a challenge: how to accurately model and engineer quantum devices at an atomic scale. North Fort Worth, Texas 76109 .. Read more

CHINA PLANS SPACE-BASED AI DATA CENTRES, CHALLENGING MUSK'S SPACEX AMBITIONS

China plans to launch space based artificial intelligence data centres over the next five years, state media reported, a challenge to Elon Musk's plan to deploy SpaceX data centres to the heavens.
China's main space contractor, China Aerospace Science and Technology Corporation (CASC), vowed to "construct gigawatt-class space digital-intelligence infrastructure," according to a five-year development plan that was cited by state broadcaster CCTV.. Read more

IMPROVING COMPUTER SCIENCE EDUCATION IN NIGERIA

Daniel Alabi knew almost nothing about computer science (CS) as a high school student in Nigeria. He loved mathematics, but he didn't start to learn about CS until joining EducationUSA, which helps international students transition to American universities... Read more

HOW DNA TECHNOLOGY IS HELPING AUTHORITIES GET CLOSER TO THE IDENTITY OF THE WOLF RIVER 'JOANNE DOE' AFTER 40 YEARS

In 1985, teenage boys made a chilling discovery in the Wolf River: a human skull. The remains would become known as "Wolf River Joanne Doe," launching a cold case investigation that would span four decades. Now, with advances in DNA technology and genealogical research, investigators are finally closing in on the victim's identity.. Read more

EX-GOOGLE ENGINEER CONVICTED OF STEALING AI SECRETS FOR CHINESE COMPANIES

Former Google software engineer Linwei Ding was convicted by a federal jury in San Francisco on Thursday of stealing AI trade secrets from the U.S. tech giant to benefit two Chinese companies he was secretly working for, the U.S. Department of Justice said on Thursday.
Ding, a 38-year-old Chinese national, was found guilty after an 11-day trial of seven counts of economic espionage and seven counts of theft of trade secrets for stealing thousands of pages of confidential information.. Read me

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FORESTATION AND HYDROLOGY: LESSONS LEARNED FROM CHINA

IChina's unprecedented forest-based ecological engineering programs over the past several decades present a unique opportunity to understand forest-water interactions at a large scale... Continuously monitoring and assessing hydrologic recovery processes and consequences is critical to sustaining ecological restoration programs under a changing environment... Read more

BY LEVERAGING EXCESS HEAT INSTEAD OF ELECTRICITY, MICROSCOPIC SILICON STRUCTURES COULD ENABLE MORE ENERGY-EFFICIENT THERMAL SENSING AND SIGNAL PROCESSING.

MIT researchers have designed silicon structures that can perform calculations in an electronic device using excess heat instead of electricity. These tiny structures could someday enable more energy-efficient computation.. .. Read me

NVIDIA PRESSES FOR QUANTUM INITIATIVE RENEWAL TO KEEP UP WITH SWIFTLY EMERGING TECHNOLOGY

A global leader in artificial intelligence and supercomputing and onetime skeptic about quantum computing is adding its considerable weight to re-start the U.S.'s quantum initiative.
A new policy-focused blog post from NVIDIA lays out the argument for the reauthorization of the National Quantum Initiative, calling it a strategic necessity for the convergence of quantum computing, artificial intelligence and high-performance computing. NVIDIA's stance has added weight because the company's chief executive, Jensen Huang, who once questioned whether quantum computing would deliver practical returns, now sees it as a critical component of future scientific computing systems. .. Read me

NEW APPROACH TO PLASTIC RECYCLING: WPI CHEMICAL ENGINEERING RESEARCHERS CO-AUTHOR STUDY

Researchers in the Department of Chemical Engineering and at The University of Akron have published research in Chemical Engineering Journal about a new technology that seeks to solve long-standing challenges in plastic recycling that limit the overwhelming majority of plastics to a single use and contribute to the accumulation of plastic waste.
.. Read more

NAVIGATING CAREER CHOICES IN SOFTWARE ENGINEERING

The rapid pace of change in software development doesn't just affect the tools and technologies engineers use-- it also shapes the career paths they follow. From deciding when to make a strategic job move, to choosing between consulting and in-house roles, to weighing leadership opportunities against staying hands-on with code, modern software engineers face a wide range of career-defining decisions.. Read more

FORESTATION AND HYDROLOGY: LESSONS LEARNED FROM CHINA

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NEW HYDROGEL COATING BOOSTS SOLAR PANEL POWER OUTPUT BY 13%

Researchers in Hong Kong have developed a low-cost hydrogel coating that cools solar panel hot spots and increases the power output, thus improving their overall performance and reliability.
The innovation could raise annual solar power generation by up to seven percent in dense cities... Read me

LESSONS IN CHEMISTRY FROM A 'HEALTHILY STUBBORN' ENGINEER: HOW PAUL MEYER'S POLYMER HACKS COULD PRODUCE TOUGHER CEMENT, SAFER ENGINEERED WOOD, AND LESS-ENERGY-INTENSIVE PAPER

Paul Meyer loaded the 10-foot-tall trebuchet onto a flatbed trailer—not alone, of course. The wooden medieval siege weapon weighed about as much as Meyer plus another team member on their Advanced Placement Physics pumpkin-tossing team. Hence the flatbed... Read more

HARNESSING EMERGING TECHNOLOGIES TO TACKLE THE WORLD'S BIG PROBLEMS: FROM AI-DRIVEN HUMANOID ROBOTS TO DRUGS FOR ALZHEIMER'S DISEASE, SCIENTISTS AT THE KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY ARE PURSUING RESEARCH IN CRUCIAL EMERGING FIELDS.

Jongwon Lee envisions a future where almost every household will have an AI-powered humanoid robot, and he thinks that reality may be upon us much sooner than you might expect... Read me

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