

Technology Roundup

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Forthcoming Tech Events

- Reverse Engineering Cyber Weapons
 - Innovations in Computing Technologies and Information Sciences
 - Seminar on Drug Adulterants, Impurities, and Impact on Human Health
 - 2nd International Conference on Computing Technologies, Tools and Applications (ICTAPP-24)
 - One-Day Hands-on Workshop Intravenous (IV) and Intramuscular (IM) Administration
 - 8th International Conference on Sustaining Livelihoods: Climate-Smart Agriculture for Food Security
 - 14th National Media Workshop (14th NMW)
 - 1st International Conference on Computational Sciences and Innovations (ICCSI)

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Tech & Trade Offers



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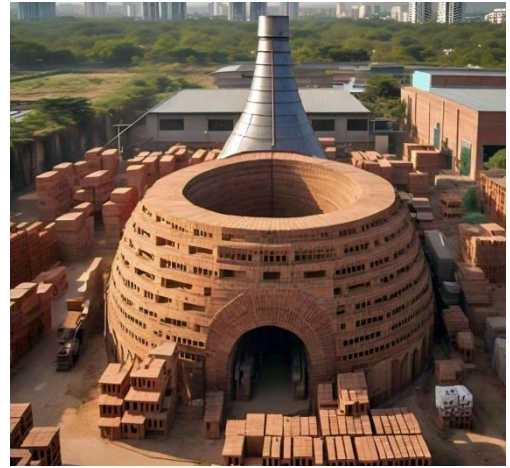
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Islamabad's Green Triumph: Zig-Zag Technology

A total of 49 out of the 63 conventional brick kilns situated within the federal capital territory have transitioned to zig-zag technology. These kilns were a major source of air pollution, contributing significantly to the problem. This conversion is expected to substantially alleviate air pollution in the capital and its neighboring regions. By adopting zig-zag technology, the cleaner brick kilns are poised to decrease breath-choking carbon emissions by 60% and cut energy expenses for their owners by 30%. This initiative aims not only to mitigate emissions of toxic black carbons that contribute to smog but also to address overall air pollution in the federal capital and its surrounding rural areas. Zig-zag kilns optimize brick firing with a staggered brick arrangement. This design ensures more uniform heat distribution and efficient combustion. It reduces fuel consumption and emissions, making brick production sustainable and eco-friendly.



(Meta AI imagined image).

CDA Delegation Visits China's Rooftop Solar Project: Strengthening Sustainable Energy Collaboration

On January 8th, representatives from Pakistan's Capital Development Authority (CDA) embarked on an important visit to the Wansheng 20 MW rooftop distributed photovoltaic power generation project in Chongqing, China. Spearheaded by PowerChina Chongqing Engineering Cooperation, this project underscores the deepening collaboration between the two countries in advancing sustainable energy initiatives. The delegation visited essential facilities of the project, which encompassed the rooftop photovoltaic array, inverter operations, and the prefab equipment cabin. This immersive experience offered visitors valuable insights into the practical applications, benefits, and the sustainable power supply process inherent in the rooftop distributed photovoltaic system. Highlighting the close strategic partnership between China and Pakistan, Imran Muhammad expressed eagerness to deepen the exchange and cooperation in energy construction with PowerChina Chongqing Engineering Cooperation. This sentiment emphasizes the importance of cross-border collaboration in advancing sustainable practices.



(Meta AI imagined image).

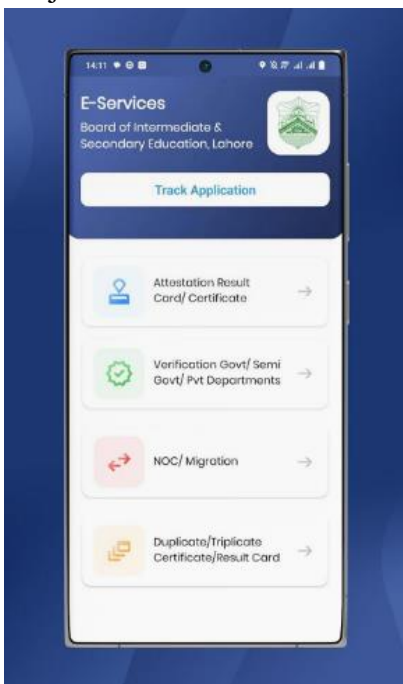
PTCL and Huawei Pioneer Next-Gen Fiber Optic Broadband with 50g-Pon Trial in Pakistan

Pakistan Telecommunication Company Limited (PTCL), the nation's top broadband service provider, accomplished the first successful trial of 50G-PON technology in the country. This achievement signifies a significant step toward introducing next-generation fiber-optic broadband services in Pakistan. ITU-T defines 50G-PON as a next-gen broadband technology based on Passive Optical Network, poised to transform Pakistan's digital sphere. With superior capabilities compared to GPON and XG(S)-GPON, 50G-PON offers an impressive 50 Gbps per PON port. This technology is poised to reshape future requirements across industries, enterprises, campuses, and home environments. Its advancement unlocks infinite potential for bandwidth-intensive and low-latency next-generation services. Key use cases include holographic technologies, XR-based metaverse integration, smart manufacturing with 3D machine vision, high-performance gaming and business services. A notable feature of 50G-PON technology is its seamless coexistence with GPON and XG(S)-PON on the same physical and passive optical network.



Mobile app for Punjab Education Boards launched

Punjab Caretaker Chief Minister launched a mobile app for e-services by the Board of Intermediate and Secondary Education (BISE) in Lahore. During the unveiling ceremony, the chief minister announced intentions to roll out the app to all education boards in Punjab within a week. This integrated mobile app will connect all education boards, enabling students to access essential services by specifying the relevant board's name. The chief minister reviewed the application by testing its features on a mobile device. He observed various processes, including e-payment, degree verification, result card issuance, NOC issuance, and migration certificate procedures. He observed the seamless issuance of duplicate and triplicate degrees through the e-app and lauded the BISE app for its efficient degree verification process, particularly for government institutions.



Scatec Commences Solar Power Plant Operations in Sindh

Scatec ASA, a prominent player in renewable energy solutions, has completed construction and commenced generating clean energy from its 150 MW solar power facilities in Sukkur, Pakistan. The power plants are expected to produce around 300 GWh annually through 25-year power purchase agreements indexed to USD with the Central Power Purchasing Agency of Pakistan (CPPA). Scatec maintains a 75 percent economic stake in the projects and will deliver Operation & Maintenance as well as Asset Management services to the power plants. Nizam Energy, Scatec's local partner, holds the remaining ownership share. The non-recourse project debt is sourced from FMO, the Dutch development bank, Faysal Bank, Bank of Punjab, Bank Islami, and Pak Kuwait Investment Company.



IAEA Guidelines: Pakistan Approves Radiopharmaceutical Production

Pakistan has endorsed the production and quality control of radiopharmaceuticals, following the technical guidelines set by the International Atomic Energy Agency (IAEA) for its member states. The Drug Regulatory Authority Pakistan (DRAP) has sanctioned the use of the IAEA Technical Report 466 and additional technical reports from the IAEA as regulatory references for radiopharmaceuticals production and quality control within the country. Theranostics, an advancing field in medicine,



allows professionals to diagnose and treat patients either simultaneously or sequentially, using radiopharmaceuticals. Embraced by early adopters, this patient-focused discipline shows promise in providing precise diagnoses and targeted treatment, thereby minimizing risks to healthy tissue. Presently, Pakistan's Institute of Nuclear Medicine and Oncology (INMOL) in Lahore, along with

its Nuclear Medicine Oncology and Radiotherapy Centre (INOR) in Abbottabad, are manufacturing innovative radiopharmaceuticals for theranostic procedures. They leverage equipment and training acquired through the IAEA's technical cooperation (TC) programme.

Advancing the E-Employment: Deployment of Co-Working Spaces Impending

Dr. Umar Saif, the Caretaker Federal Minister of Information Technology, revealed intentions to provide interest-free loans to the private sector with the goal of setting up 10,000 e-employment centers across the nation. In a video message, Dr. Saif underscored the hurdles encountered by the 1.5 million Pakistani youth involved in online freelancing, attributing these challenges to the lack of suitable working environments. He stressed that numerous freelancers, earning modestly at approximately 10 to 20 dollars per day, find it challenging to afford fundamental work necessities like generators or laptops, let alone office rent. In addressing these hardships, the initiative seeks to establish specialized e-employment centers customized to meet freelancers' requirements.



(Meta AI imagined image).

Pakistan Accelerates Towards an Eco-Friendly Future with Electric Rickshaws

SAZGAR, a prominent innovator and trailblazer in the automotive sector, was the focal point at the eagerly awaited Electric Licensing Event hosted by the Government of Punjab. This step marks a new era of electric vehicles in Pakistan and a step towards sustainable living. The event showcased SAZGAR's commitment to revolutionize the automotive landscape with its cutting-edge electric vehicles (EVs). Attendees were treated to an immersive experience, featuring live demonstrations, informative displays, and in-depth presentations on the latest technological advancements in the electric mobility sector by SAZGAR. The SAZGAR EV electric rickshaw boasts a sleek design



complemented by a potent electric engine, delivering outstanding performance, efficiency, and a commanding presence on the road. It offers an impressive range of 100km for the base variant and 160km for the top variant on a single charge,

with a charging time of just up to 4 hours. Additionally, it comes equipped with digitized odometers for enhanced convenience and functionality.

HUBCO Collaborates with KE to Explore Thar Coal Conversion

CEOs of HUBCO and KE signed an MoU to investigate the conversion of HUBCO's RFO-based Hub Power Plant to Thar coal after the expiration of its current Power Purchase Agreement (PPA) with the Central Power Purchasing Authority (CPPA), aiming to reduce reliance on imports and promote sustainable energy. Both entities have shown a firm dedication to nurturing collaborative endeavors, committed to effectively implement the requisite measures for the prompt conversion and smooth integration of the project. This aligns with Pakistan's energy goals, emphasizing indigenous sources and innovation, aiming for energy self-sufficiency and environmental responsibility. The strategic initiative positions both companies at the forefront of Pakistan's energy landscape, contributing significantly to the long-term goal of a sustainable and reliable energy ecosystem.



PTCL Group Renews SNGPL Cellular Service Partnership

PTCL Group (comprising PTCL & Ufone 4G), Pakistan's leading telecommunications and integrated ICT services provider, has extended its partnership with SNGPL, the country's largest integrated gas company. This renewal ensures the continued delivery of cutting-edge cellular services to SNGPL through PTCL Group Business Solutions. The agreement was signed by higher authorities at SNGPL headquarters, with senior officials from both organizations in attendance. PTCL Group will offer wireless connectivity and a range of bundled services to SNGPL under this agreement. PTCL Group



and SNGPL are at the forefront of utilizing technology to empower their customers and drive growth in Pakistan. Their collaboration amplifies their impact, enriching and fortifying the country's economic landscape. This collaboration not

only promises to improve efficiency and reliability but also underscores a shared commitment to technological innovation and economic development. This collaboration aims to improve customer experience and drive technological advancement in Pakistan, contributing to its economic growth.

Developing AI Technology Hub through China-Pakistan Collaboration

In a notable move towards technological progress, Pakistan and China have collaborated to create an Artificial Intelligence (AI) development hub in South Asia. Director of the CPIInS Lab at Pakistan's National University of Science and Technology (NUST) highlighted Pakistan's opportunity to emerge as a frontrunner in AI regionally through cooperation with China. The CPIInS Lab concentrates on diverse research domains like UAV control systems and AI recognition localization, intending to implement smart city solutions customized to local requirements. Currently, considering local circumstances, the lab has initiated pilot programs for the license plate recognition system and intelligent security system in Pakistan.



This partnership not only introduces technological progressions such as streamlined traffic management systems and infrastructure monitoring but also facilitates talent interchange between the two nations, potentially positioning Pakistan as a hub for AI development in South Asia.

UNOPS Unveils Sustainable Urban Dwellings Initiative for Climate-Resilient Communities

The 'GHAR' initiative, which stands for Green Housing Affordable Resilient, has been introduced by the United Nations Office for Project Services (UNOPS) in partnership with the provincial administrations of Sindh, Punjab, and Khyber Pakhtunkhwa (K-P). This initiative represents a significant step forward in bolstering the technical capacities of governmental institutions and



academia in the creation, construction, and administration of housing that is resilient to climate challenges. As urbanization surges and climate risks grow, there's a pressing need for resilient housing. Current structures are inadequate against climate challenges, urging a shift in construction practices. Climate-resilient housing is vital to protect communities and ensure urban sustainability.

(Meta AI imagined image).

Europe's Initial Supercomputer Set to Activate within a Year

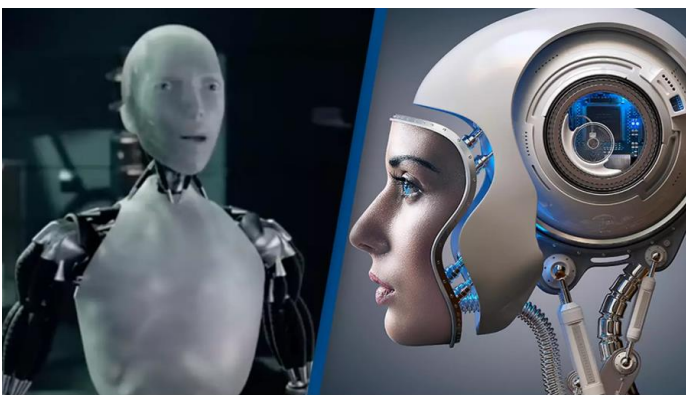
European research institutions have committed to constructing the world's most potent "AI supercomputer." Dubbed the Joint Undertaking Pioneer for Innovative and Transformative Exascale Research, or JUPITER, it will mark Europe's debut in building an exascale-class supercomputer. The HPC super-system is on track



to commence operations later this year. The Jülich Supercomputing Center (JSC) and the French company Eviden have entered into an agreement to construct a new modular data center for housing the JUPITER supercomputer. In October 2023, Europe's supercomputer consortium, EuroHPC JU, initiated the commissioning of JUPITER. Once finalized, it will stand as Europe's inaugural supercomputer capable of processing one exaFLOPS (one quintillion floating-point operations per second). Scientists anticipate that exascale-class supercomputers will catalyze groundbreaking technological advancements in artificial intelligence, biology, chemistry, and astrophysics research.

Scientists Working on Robot with Consciousness

Though the idea of "consciousness" in robots has long been deemed unimaginable, Columbia University researchers suggest it could mark the next significant scientific breakthrough for humanity. Researchers are exploring artificial consciousness, aiming to equip robots with cognitive abilities comparable to humans. Their approach blends multiple computer science and engineering disciplines to unravel the mysteries of consciousness and incorporate them into robotic design. Using state-of-the-art developments in machine learning and neural networks, they seek to give robots more than just reactive capabilities, striving for a level of self-awareness and environmental understanding akin to



human cognition. This pioneering effort not only stands to push the boundaries of robotics but also offers insights into the complex nature of consciousness. Although machine-learning algorithms have previously constrained robots, a conscious robot would distinguish itself by continually seeking self-improvement, with evolution serving as its primary driving force.

Consciousness in robots could lead to enhanced problem-solving abilities and more intuitive interactions with humans.

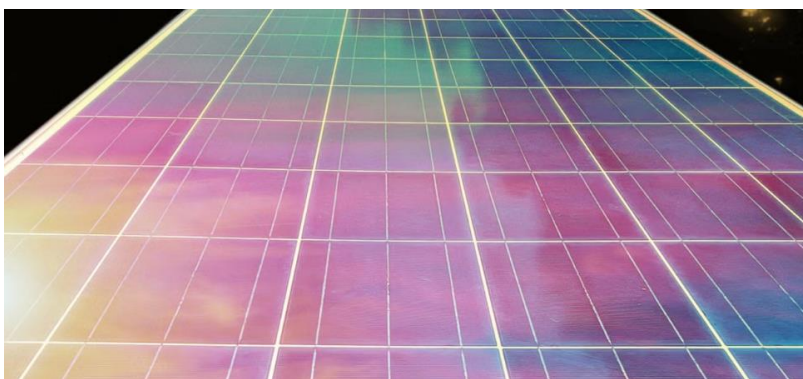
China Broadens Space Access with Addition of New Launch Facility in Hainan

Completion of a fresh launch pad on Hainan Island in China might enhance the country's space accessibility, fostering national constellation initiatives and commercial launch strategies. This advancement will alleviate the bottleneck in accessing launch facilities for both domestic and commercial launch service providers, enabling Chinese entities to expedite the launch of various constellations. Furthermore, it will enhance China's capacity to deploy and sustain space assets, encompassing remote sensing, communication, and other systems, serving both civilian and military objectives. The introduction of the new launch pads could aid China in shifting away from older hypergolic rockets, potentially minimizing instances of booster debris falling near populated regions after launches from the country's inland spaceports of Jiuquan, Taiyuan, and Xichang.



Solar Panel Innovation Utilizes Unused Light to Enhance Efficiency

Researchers have uncovered a method to substantially enhance solar panel efficiency by capturing previously untapped segments of the light spectrum. A group from Shanghai University of Engineering Science in China has identified that a glass-ceramic material could serve as a transparent layer over solar cells to transform ultraviolet (UV) light into visible light. Additionally, this material offers the advantage of shielding next-generation perovskite cells from degradation caused by intense



light exposure. The researchers indicate that the new material can be readily synthesized in a laboratory, contrasting with previously suggested methods for spectral conversion which are more complex. The advancement of spectral downshifting co-doped glass-ceramics, with potential applications in both terrestrial and space photovoltaic cells, could pave the way for improved performance in photovoltaic devices, offering new avenues for development. With further research and implementation, this innovative approach holds the promise of revolutionizing the renewable energy landscape, paving the way for a more sustainable and energy-efficient future.

France Pledges Nuclear Expansion in Pursuit of Carbon Reduction Goals

France is on track to build fourteen additional nuclear reactors by 2035, building upon President Emmanuel Macron's initial declaration of six reactors in 2022. This ambitious initiative, articulated by Energy Minister Agnes Pannier-Runacher, is designed to help France achieve its carbon reduction goals while recognizing the finite lifespan of its existing nuclear power infrastructure. As France makes substantial strides towards integrating nuclear power as a fundamental component of its future energy strategy, it underscores a wider European trend of reassessing the role of nuclear energy in response to increasing calls for sustainable and reliable energy supplies. Through the construction of these new nuclear reactors, France aims not only to fortify its energy security but also to sustain its position as a frontrunner in generating low-carbon electricity across Europe.



(Meta AI imagined image).

Breakthrough Indoor Solar Cell Technology Revealed by Ambient Photonics

Ambient Photonics, leader in developing low-light, indoor solar cell technology for everyday electronics, is currently presenting their revolutionary solar advancements at CES 2024. Visitors have the opportunity to experience a variety of practical designs showcasing the undeniable truth: Batteries are obsolete, and indoor light represents the future power supply for billions of interconnected devices, spanning from remote controls to building sensors and various ambient IoT technologies. Ambient Photonics' solar cells enable electronics to function seamlessly under any indoor lighting conditions. By replacing bulky and environmentally harmful batteries with their lightweight and efficient solar cells, manufacturers can design sleeker products with reduced carbon footprints. In contrast to other



solar technologies that demand exceptionally bright conditions and come with higher costs, Ambient Photonics' cells are specifically engineered for practical, low-light scenarios. Leveraging innovative molecules and manufacturing techniques, they efficiently capture ambient light, both indoors and outdoors, establishing a continuous power supply. With a remarkable threefold improvement in light harvesting efficiency compared to traditional solutions, a single Ambient Photonics DSSC can generate the same power output as much larger indoor solar cells.

China Launches 'Lobster Eye' Einstein Probe to Study Cosmic Phenomena

The spacecraft from the Chinese Academy of Sciences (CAS) will search for high-energy light emitted by some of the universe's most potent phenomena and occurrences, such as feeding black holes, collisions between neutron stars, and supernovas signifying the explosive demise of massive stars.

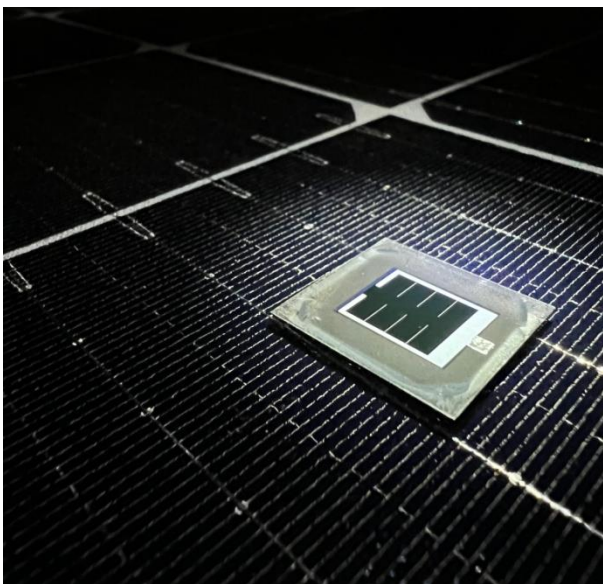
After the launch, the Einstein Probe ascended to an altitude of approximately 370 miles (600 kilometers). It is currently orbiting the Earth approximately once every 96 minutes, following a path inclined at 29 degrees. This configuration allows it to observe nearly the entire night sky above Earth within just three orbits, aligning with



its planned mission duration of three years, with the possibility of an extended mission. Over the next six months, the mission team will conduct tests and calibration procedures for the spacecraft's two main instruments. These include the Wide-field X-ray Telescope (WXT), designed to capture a broad area of space using a lens inspired by the eye of a lobster, and the Follow-up X-ray Telescope (FXT), which will focus on specific targets identified in the wide-field view.

KAUST's Blueprint: Affordable Solar Cells for Saudi Arabia and Beyond

The scientists from Photovoltaics Laboratory at KAUST have published a roadmap in Science outlining the path to market for perovskite/silicon tandem solar cells, setting the stage for a future



driven by abundant, affordable clean energy globally and in Saudi Arabia. The team's research focuses on improving solar efficiency to meet Saudi Arabia's solar targets. Perovskite/silicon tandem technology combines the strengths of two materials: perovskite's efficient light absorption and silicon's long-term stability, resulting in record-breaking efficiency. The market for perovskite/silicon tandems is expected to exceed \$10 billion within a decade. The breakthrough research at KAUST on perovskite/silicon tandem photovoltaics exemplifies the university's

commitment to developing green technologies that advance carbon-free policies and secure a sustainable future.

First Graphene-Based Semiconductor

At the Georgia Institute of Technology, researchers have achieved a remarkable feat, crafting the world's inaugural functional semiconductor from graphene, a single layer of carbon atoms bound by the toughest bonds discovered. This breakthrough heralds a fresh approach to electronics. This breakthrough, addresses the challenge that has hindered graphene research for years, the absence of a crucial electronic property known as the "band gap," essential for semiconductors to switch on and off. The achievement is significant as it opens up new possibilities for graphene in electronics, especially at a time when silicon, the primary material for modern electronics, is facing limitations due to the demand for faster computing and smaller devices. The team's measurements revealed that their graphene semiconductor exhibits 10 times greater mobility than silicon. Essentially, this means that electrons move with minimal resistance, leading to faster computing in electronic devices.



Startup Betavolt Reveals 50-Year Nuclear Battery

Beijing-based Betavolt claims to have developed the world's first miniaturized nuclear battery, cramming 63 nuclear isotopes into a module smaller than a coin. The company announced that the next-generation battery has entered pilot testing and will be mass-produced for commercial use, including applications such as phones and drones. Betavolt's atomic energy batteries can provide long-lasting power for various applications, including aerospace, AI equipment, medical devices, microprocessors, advanced sensors, small drones, and micro-robots. This energy innovation will



position China at the forefront of the new AI technological revolution. Betavolt's initial nuclear battery delivers 100 microwatts of power and a voltage of 3V, with dimensions of 15x15x5 cubic millimeters. However, the company aims to produce a battery generating 1 watt of power by 2025. Betavolt claims that the layered design of its nuclear battery ensures it is resistant to catching

fire or exploding under sudden force. Additionally, the battery is capable of functioning in temperatures ranging from -60°C to 120°C.

China's BYD to invest \$14 billion in EV Smart Car

To strengthen its standing in the fiercely competitive electric vehicle (EV) market, BYD, the world's largest electric car manufacturer, has introduced an innovative AI-powered smart car system. BYD, now the world's largest EV maker, is setting its sights on The Chinese EV manufacturer introduced its AI-powered Xuanji smart car system, signaling a significant investment in artificial intelligence. The new system is aimed at enhancing car safety and comfort, with plans to improve voice recognition and automated parking features. The Xuanji system has the remarkable ability to detect changes inside and outside the vehicle in milliseconds, a feature BYD claims will greatly improve drive safety and comfort. At its core is the AI Large Model, which boasts the industry's most extensive data foundation. This enables the Integrated Vehicle Intelligence system to continuously adapt, potentially transforming the driving experience.



UAE Startup Reveals Offshore PV Float

Floating Man, Dubai, is presently working to deploy an innovative floating structure designed for offshore solar installations. The system, covering 900 square meters and utilizing floaters, has the capacity to accommodate up to 200 solar panels. This technology is distinctive, particularly when considering its application in open sea environments. Several nations are presently considering transitioning their emphasis from ground-mounted PV systems to floating PV solutions. According to a company statement, the innovative structure is designed to endure winds reaching speeds of up to



160 km/h and boasts a lifespan of 30 years. Constructed with a steel framework and corrosion-resistant coating, it will be upheld by 30 floating pontoons. The floating solar structure is specifically engineered to safeguard solar panels from flooding even in the presence of 2-meter wave heights, eliminating the necessity for a separate wave breaker.

SOURCES AND IMAGE CREDITS

https://pid.gov.pk/site/press_detail/24359

<https://thedailycepec.com/pakistani-delegation-visits-pv-project-in-chongqing-for-green-energy-cooperation/>

<https://www.newswire.com.pk/2024/01/22/ptcl/>

<https://en.dailypakistan.com.pk/15-Jan-2024/cm-naqvi-launches-mobile-app-for-punjab-education-boards>

<https://scatec.com/2024/01/31/scatec-starts-commercial-operation-of-solar-power-plants-in-pakistan/>

<https://www.brecorder.com/news/40286562#:~:text=In%20this%20connection%2C%20the%2>

<https://www.samaa.tv/208737778-govt-to-establish-10-000-e-employment-centers-for-freelancers>

<https://sazgarautos.com/pakistans-first-licensed-ev-rickshaw/>

<https://hubpower.com/wp-content/uploads/2024/01/HUBCO-PR-Final.pdf>

<https://ptcl.com.pk/Home/PressReleaseDetail/?ItemId=870&LinkId=130>

<https://cpecinfo.com/china-pak-coop-building-smart-city-through-use-of-ai-tech/>

<https://tribune.com.pk/story/2451756/climate-resilient-housing>

<https://www.techspot.com/news/101633-european-supercomputer-jupiter-adopt-modular-data-center-design.html>

<https://www.unilad.com/technology/scientists-want-a-robot-with-a-consciousness-on-par-with-a-human-865126-20230117>

<https://spacenews.com/china-completes-new-commercial-launch-pad-to-boost-access-to-space/>

<https://www.independent.co.uk/tech/solar-panel-efficiency-renewable-energy-b2473236.html>

<https://www.msn.com/en-us/money/companies/france-embarks-on-major-nuclear-plant-expansion-to-meet-carbon-reduction-goals/ar-AA1mB2ox>

<https://www.gophotonics.com/news/details/5577-ambient-photonics-unveils-revolutionary-indoor-solar-cell-tech-at-ces-2024#>

<https://www.space.com/china-launches-einstein-probe-black-holes-x-ray>

<https://www.kaust.edu.sa/en/news/kaust-unveils-blueprint-for-affordable-solar-cells-to-power-saudi-arabia-and-beyond>

<https://research.gatech.edu/feature/researchers-create-first-functional-semiconductor-made-graphene>

<https://www.nucnet.org/news/startup-betavolt-unveils-nuclear-battery-that-can-last-for-50-years-1-3-2024>

<https://www.autoblog.com/2024/01/17/chinese-ev-automaker-byd-will-spend-14-billion-developing-smart-car-features-that-rival-tesla/>

<https://www.pv-magazine.com/2024/01/25/uae-startup-unveils-floating-structure-for-offshore-pv/>

FORTHCOMING TECH EVENTS**PAKISTAN**

- Reverse Engineering Cyber Weapons
March 25 – 26, Institute of Space Technology, Islamabad
<https://www.ist.edu.pk/events-2024-cyber-weapons>
- Innovations in Computing Technologies and Information Sciences
April 29 – 30, University of Engineering and Technology, Peshawar
<https://www.uetpeshawar.edu.pk/ictis/>
- Seminar on Drug Adulterants, Impurities, and Impact on Human Health
May 28th, University of Veterinary & Animal Sciences, Lahore
<https://uvas.edu.pk/news-events/2024/June/seminar.php>
- 2nd International Conference on Computing Technologies, Tools and Applications (ICTAPP-24)
June 4 – 6, The University of Agriculture, Peshawar
<https://ictapp.org.pk/>
- One-Day Hands-on Workshop Intravenous (IV) and Intramuscular (IM) Administration
June 12 – 13 and 26 – 27, National Defense University, Karachi
<https://www.duhs.edu.pk/events/one-day-hands-on-workshop-intravenous-iv-and-intramuscular-im-administration/>
- 8th International Conference on Sustaining Livelihoods: Climate-Smart Agriculture for Food Security
July 3 – 4, University of Poonch, Rawalakot
<https://upr.edu.pk/storage/uploads/blogs/664c6cd2d708e-Call%20for%20Abstracts.pdf>
- 14th National Media Workshop (14th NMW)
July 22 – 26, National Defense University, Islamabad
<https://ndu.edu.pk/issra/download/14th-NMW.jpg>
- 1st International Conference on Computational Sciences and Innovations (ICCSI)
July 22 – 23, The University of Haripur, Haripur
<http://121.52.149.157/>
- International Conference on Breakthrough in Pakistan's Economic Development through Technological Innovation in Agriculture - A Policy Approach
July 29 – 31, Bacha Khan University, Charsadda
https://docs.google.com/forms/d/e/1FAIpQLSf39yuGy8z-TgriokNHNH9Ni3GWKdczImKRTL_mImH6h-m7JA/viewform?pli=1
- 1st International Conference on advances in Mechanical, Materials, Mechatronics and Energy Engineering (ICAME-24)
October 17 – 18, University of Engineering and Technology, Taxila
<https://web.uettaxila.edu.pk/icame2024>
- Role of Artificial Intelligence in Access to Justice in Pakistan: Shaping the Future of Law, Peace, and Equality
December 3 – 4, International Islamic University, Islamabad
<https://www.iiu.edu.pk/wp-content/uploads/2024/05/iri-international-conference-02052024.pdf>
- 18th International Conference on Emerging Technologies (ICET 2023)
November 6 – 7, National University of Computer and Emerging Sciences, Peshawar
<https://www.icet.org.pk/2023/index.php>

INTERNATIONAL

- International Symposium on High-Performance Computer Architecture (HPCA)
March 2 – 6, Edinburgh, Scotland
<https://www.hpca-conf.org/2024/>
- International Conference on Open Innovation and Digital Transformation
March 3 – 4, Manama, Bahrain

- <https://oidt2023.agu.edu.bh/>
12th International Conference on Intelligent Control and Information Processing (ICICIP2024)
March 8 – 10, Nanjing, China
<https://conference.cs.cityu.edu.hk/icicip/>
- International Conference on Software Analysis, Evolution and Reengineering (SANER)
March 12 – 15, Rovaniemi, Finland
<https://conf.researchr.org/home/saner-2024>
- 31st IEEE Conference on Virtual Reality and 3D User Interfaces
March 16 – 21, Florida, USA
<https://ieeivr.org/2024/>
- International Russian Smart Industry Conference
March 25 – 29, Sochi, Russia
<https://smartindustrycon.ru/index-eng.html>
- AI and Big Data Expo
June 5 – 6, California, USA
<https://www.ai-expo.net/northamerica/>
- Asia Pacific Drilling Technology Conference and Exhibition – Advancing Drilling and Well Technologies for Resilient Future
August 19 – 20, Bangkok, Thailand
https://www.spe-events.org/asia-pacific-drilling?_ga=2.42068965.1905833411.1
- EV Charging Infrastructure Middle East 2024
August 19 – 20, Dubai, UAE
<https://www.middleeast.evcharging-infrastructure.com/>
- 11th International Conference on Civil and Urban Engineering
August 19 – 20, Rome, Italy
<https://iccue.org/>
- Global Summit on Polymer Science and Composite Materials (GSPSCM2024)
September 16 – 18, Prague, Czech Republic
<https://polymersciencesummit2024.com/>
- 5th International Seminar on Fundamental and Application of Chemical Engineering (ISFACHE) 2024
October 1 – 2, Surabaya, Indonesia
<https://elib.its.ac.id/conf/isfache/>
- 5th International Conference on Building Science, Technology and Sustainability (ICBSTS 2024)
October 15 – 18, Lisbon, Portugal
<https://www.icbsts.org/>
- 10th IUPAC International Conference on Green Chemistry (10th ICGC)
October 18 – 22, Beijing, China
<https://www.greeniupac2024.org/>
- Greenhouse Gas Control Technologies (GHGT) conference
October 20 – 24, Alberta, Canada
<https://ghgt.info/>
- Optical Latin America Optics and Photonics Conference
November 10 – 14, Puerto Vallarta, Mexico
https://www.optica.org/events/topical_meetings/latin_america_optics_and_photonics_conference/
- International Congress on Engineering and Information
November 21 – 23, Taipei, Taiwan
<https://iceai.org/>

TECH AND TRADE OFFERS

Mati Sports Industry

About Mati Sports Industry

Mati Sports Industry (Clothing) is 100% export oriented unit having highly qualified staff at its back having a vast experience in the manufacturing process and maintaining quality tools to the International standards and specifications.

We are committed to provide the highest quality products and services to our customers. Our primary objectives are to instill customer confidence, ensure customer satisfaction, and deliver services promptly.

Our services

- Sports wear
- Gym wears
- Street wears
- Work wears
- Denim wears
- Bombers wears
- Other Accessories



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Solar Asia

About Solar Asia

Solar Asia (Private) Limited own Solar Asia Brand incorporated on 2nd of December 2015 in the city of Peshawar is a High-Tech Solar Products company headquartered in Pakistan. It is engaged in Innovation, Research, Design, Develop, Engineer and Test the most advanced Solar Products in Pakistan.

Solar Asia proudly presents the latest addition to our portfolio of high-efficiency solar solutions. Our panels are not just a leap forward in solar power generation but it's a giant leap towards a sustainable future.

Our products

- Solar Asia panels
- Solar Asia Hybrid inverters
- Solar Asia water heaters
- Solar Power Controllers
- Power inverters
- Solar Asia gel batteries



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PASTIC serves as a gateway for Scientific & Technological Information for R&D by catering to the information needs of researchers, entrepreneurs, industrialists, educationists, policy makers and planners through anticipatory and responsive information services.

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“Technology Roundup” is a news bulletin that provides latest and innovative technology news, and forthcoming events. It also promotes products, technologies and services globally in sectors such as Agro Industry, Bio-Technology, Building Material, Business, Chemicals, Electronics, Energy, Fisheries, Food Processing, Machinery, Packaging, Mining, Pharmaceuticals and Textiles.

Please give us your feedback and address queries to tis.pastic@gmail.com