



PAKISTAN SCIENTIFIC AND
TECHNOLOGICAL INFORMATION CENTRE
(PASTIC)

Technology Information Services (TIS)

TECHNOLOGY ROUNDUP

A Bimonthly Technology & Innovation Bulletin

JULY–AUGUST 2026

VOLUME 18 | ISSUE 4



ICT



Agro-Industry



Biotechnology



Energy



Health



Trade & Events



INFORM • CONNECT • PROMOTE
SCIENCE, TECHNOLOGY
AND INNOVATION



www.pastic.gov.pk



Inside This Issue

Contents

03

Technology News

12

Forthcoming Conferences & Technology Events - Pakistan

15

Forthcoming Conferences & Technology Events - International

18

Technology, Trade & Partnership Opportunities - SheDev

19

Technology, Trade & Partnership Opportunities - Enercom

20

Sources, Image Credits & Issue Register

21

About PASTIC, Services & Online Resources

Executive Editor's Message

Technology Roundup presents selected national and international developments in artificial intelligence, digital transformation, robotics, smart infrastructure, agriculture, energy, advanced materials and health technologies. This July-August 2026 issue focuses on research, innovation, industry, technology opportunities and forthcoming events, while highlighting developments that can inform Pakistan's research, professional and industrial communities.

Prof. Dr. Muhammad Akram Shaikh
Director General, PASTIC

Editorial Board

Executive Editor	Prof. Dr. Muhammad Akram Shaikh, Director General, PASTIC
Managing Editor	Dr. Saima Huma Tanvir, Director, PASTIC
Editor	Dr. Syed Aftab Hussain Shah, Additional Director (STI)
Assistant Editor	Mr. Waqar Ahmad, Asst. Scientific Information Officer
Graphics	Mr. Zeeshan Ahmad, Graphic Designer

Pakistan AI, Skills & Digital Transformation



Pakistan Turns to China's AI for Disaster Forecasting

Pakistan is enhancing its weather forecasting and disaster preparedness with MAZU Urban, an artificial intelligence based early warning system developed by the China Meteorological Administration.

Source: [eCommerce Pakistan](#)



Pakistani Researcher Recognized by NASA for Security Discovery

A self-taught Pakistani cybersecurity researcher has been recognized by the United States National Aeronautics and Space Administration after responsibly reporting a security vulnerability in one of the agency's digital systems.

Source: [Pakistan Today](#)



China Launches Digital Skills Training for Pakistani Youth

China will provide digital skills training to 300,000 Pakistani youths each year to strengthen the country's technology sector and knowledge economy.

Source: [TechnologyPlus](#)

Digital Economy, Smart Infrastructure & Global AI



Freelancers Set New Earnings Record in FY26

Pakistani freelancers earned a record 1.76 billion dollars in foreign exchange during fiscal year 2025 to 2026, reflecting a 78 percent increase from 984 million dollars in the previous fiscal year, according to the State Bank of Pakistan.

Source: TaxationPK / SBP



Islamabad to Get AI-Powered Traffic Signals

Islamabad is set to introduce artificial intelligence powered traffic signals under the Safe City Expansion Project to improve traffic management and road safety.

Source: Associated Press of Pakistan



Pakistan Joins Global AI Body as Founder

Pakistan has become a founding member of the World Artificial Intelligence Cooperation Organization, reaffirming its commitment to international cooperation in artificial intelligence and equitable access to emerging technologies. The agreement was signed during a ceremony held alongside the World Artificial Intelligence Conference in Shanghai.

Source: The Daily CPEC

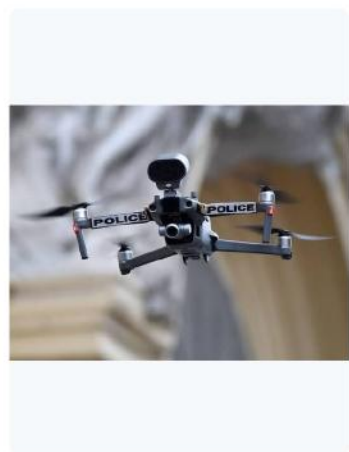
Robotics, Security & Smart Utilities



Pakistan Showcases Robotics and Autonomous Technology

Pakistan has launched the Indus Robotics and Autonomous Systems Expo 2026, highlighting the country's growing focus on robotics and autonomous technologies. The event showcased their potential to transform agriculture by helping farmers monitor crop health, manage water and farm inputs, and address climate related challenges.

Source: Radio Pakistan



AI Thermal Drones to Boost KP Police Security

The Khyber Pakhtunkhwa Police has acquired 76 artificial intelligence powered drones equipped with advanced surveillance and thermal imaging technology to strengthen security operations across the province. The new equipment will enhance aerial monitoring, counterterrorism activities, intelligence based operations, and emergency response.

Source: Fetch



DynaSys and HEXING Advance AI Water Metering

DynaSys Networks and HEXING Group have signed a memorandum of understanding to develop and deploy artificial intelligence and Internet of Things based smart water metering solutions across Pakistan, Africa, the Middle East, and Central Asia.

Source: DynaSys Networks

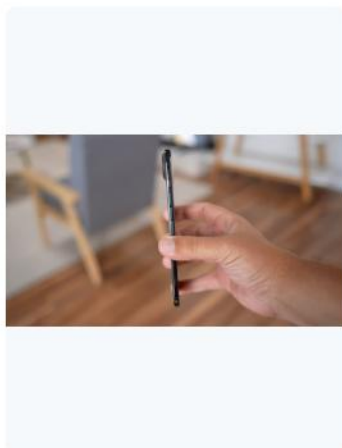
Youth Innovation, AI Education & Clean Energy



Pakistan's Young Builders Gear Up for Season 2

Change Mechanics has launched League of Launchers Season 02, an eight week artificial intelligence accelerator bootcamp for students and young entrepreneurs across Pakistan in partnership with S and P Global. Following the success of its inaugural edition, the programme has selected 48 teams from across the country to participate.

Source: TechJuice



Punjab to Introduce AI as Compulsory Subject in Primary Schools

Punjab has become the first province in Pakistan to introduce artificial intelligence as a formal subject at the primary school level. The Punjab Education Department has approved its inclusion in the curriculum for grades one to five, with implementation planned for the 2027 to 2028 academic session.

Source: TechJuice



Switzerland Tests Solar Panels on Railway Tracks

Swiss startup Sun Ways is launching a pilot project to install removable solar panels between railway tracks, introducing an innovative approach to renewable energy generation.

Source: ArchDaily

Advanced Sensing, Consumer Tech & Space Science

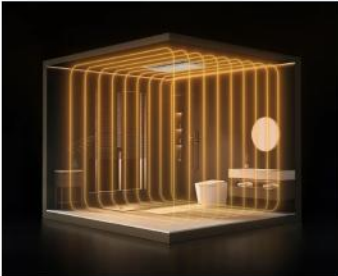
3D Camera Captures Motion of Tiny Particles



Researchers from ETH Zurich and EPFL have developed PLATON, an artificial intelligence powered particle detection system that could significantly reduce the cost and complexity of tracking particles.

Source: [Electropages](#)

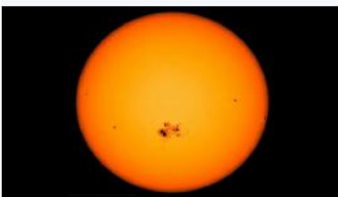
Xiaomi Unveils Radar-Powered Smart Shower Heater



Xiaomi has introduced the Mijia Smart Bathroom Heater P1 Human Sensing Edition, an artificial intelligence enabled ceiling mounted device that combines a heater, lighting system, and exhaust fan.

Source: [Notebookcheck](#)

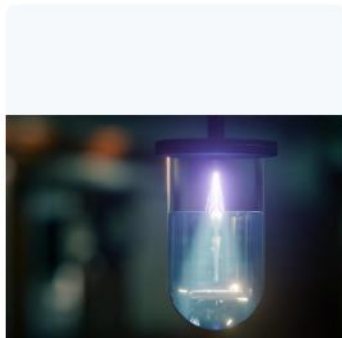
Scientists Find Signal to Forecast Solar Cycle Strength



Astronomers have developed a new technique that could predict the strength of the Sun's activity cycle up to seven years before it reaches its peak. Presented at a meeting of the Royal Astronomical Society, the method is based on identifying a distinct point in each solar cycle when the most extreme space weather events suddenly stop.

Source: [Bioscience.com.pk](#)

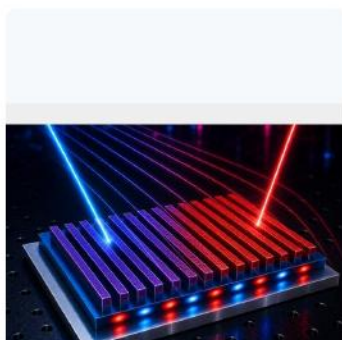
Environment, Engineering & New Energy



Scientists Develop Methods to Destroy Forever Chemicals

Researchers at the Helmholtz Zentrum Dresden Rossendorf have developed two innovative methods to break down per and polyfluoroalkyl substances, commonly known as PFAS or forever chemicals.

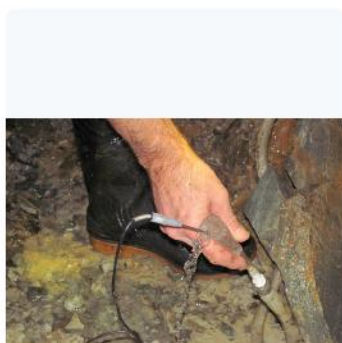
Source: [Phys.org](#)



Researchers Develop Programmable Directed Heat

Researchers at Osaka Metropolitan University have developed a novel device that enables heat to be controlled and programmed in ways previously considered impossible.

Source: [Osaka Metropolitan University](#)



Canada Discovers White Hydrogen in Canadian Shield

Researchers from the University of Toronto and the University of Ottawa have discovered sustained natural hydrogen accumulation within the ancient rocks of the Canadian Shield, highlighting its potential as a clean energy source.

Source: [University of Toronto](#)

Circular Innovation, Semiconductors & Smart Materials



Plastic Waste Converted into Jet Fuel

Researchers in China have developed a new method to convert plastic waste into jet fuel, potentially addressing two major environmental challenges at once.

Source: TechXplore



CXMT Raises \$8.6 Billion to Challenge Global Chip Giants

Chinese memory manufacturer CXMT has raised \$8.6 billion through an initial public offering on Shanghai's STAR Market, strengthening its plans to expand DRAM production and challenge major global suppliers. The company is now valued at an estimated \$80 billion to \$85 billion.

Source: Digital Citizen



Rice's Strange Property Unlocks Smart Material

Scientists have developed a new engineered material inspired by the unusual way rice grains respond to pressure. When compressed rapidly, tightly packed rice becomes weaker, while slower pressure allows it to remain strong.

Source: SciTechDaily

Health, Clean Mobility & Intelligent Sensing



A New Cancer Treatment Strategy to Prevent Resistance

Researchers at City St George's, University of London have proposed a new cancer treatment strategy that could help delay drug resistance by changing therapies before tumors begin growing again.

Source: OmniCuris



Water-Diesel Blend Cuts Engine Pollution by 67%

Researchers in Nigeria have found that water in diesel emulsions could significantly reduce harmful emissions from diesel engines. The technique disperses tiny water droplets throughout diesel using surfactants, keeping the mixture stable.

Source: Good News Network



New Lidar Chip Expands Self-Driving Vision

MIT researchers have developed a new silicon photonics chip design that could make lidar systems smaller, more durable, and more accurate. The technology addresses a major limitation of chip based lidar, where interference between optical antennas can restrict the scanning field of view and reduce signal quality.

Source: Interesting Engineering / MIT

Inclusive Technology & AI Agriculture



Student's £30 Device Translates In Real Time

A 22 year old University of Plymouth student has developed an affordable device that can translate speech and display the text directly in front of a user's eyes. Designed over six months as part of her electrical and electronic engineering degree, the device costs about £30 to produce and uses affordable and recycled materials. A small clip on unit attaches to glasses and captures speech through a microphone.

Source: BBC



AI and the Future of Agriculture

Artificial intelligence is helping researchers and farmers improve crop monitoring, field phenotyping, weather forecasting and climate-smart decision making. IBM Think highlights how newer computer-vision and language-enabled tools can reduce data burdens, support earlier disease detection and improve the use of water, energy and other farm inputs. These approaches can strengthen field observation and help agricultural systems respond more quickly to climate and production risks.

Source: IBM Think

Forthcoming Conferences & Technology Events - Pakistan

01 14-18 Sep 2026

Advanced Training Course on Virtual Forest 3D Radiative Simulation and Hyperspectral App in Forest

SUPARCO, Islamabad

[Details / Registration](#)

02 22-25 Sep 2026

ANSO-COMSATS Conference on AI-Enabled Solutions for Sustainable Water Governance, Security and Safety

COMSATS University, Islamabad (Hybrid)

[Details / Registration](#)

03 22 Sep 2026

3rd International Conference on Media & Communication (ICMAC 2026)

FUSST, Rawalpindi

[Details / Registration](#)

04 06-07 Oct 2026

2nd International Conference on the Evolution of Artificial Intelligence (ICEAI 2026)

Baragali

[Details / Registration](#)

05 13-15 Oct 2026

Conference on "A Sustainable Future for All Living Species on Planet Earth"

COMSATS, Islamabad

[Details / Registration](#)

06 19-23 Oct 2026

Modern WebGIS using Open Source Technologies

SUPARCO, Karachi

[Details / Registration](#)

Forthcoming Conferences & Technology Events - Pakistan

07 20-21 Oct 2026

International Conference on Innovations in Computer Science - Connecting Global Researchers, Practitioners and Innovators

NED University, Karachi

[Details / Registration](#)

08 20-22 Oct 2026

3rd International Conference on Applied Additive Manufacturing (ICAAM 2026)

NCP, Islamabad

[Details / Registration](#)

09 27-31 Oct 2026

International Conference on Leveraging Space Technology for EW4All, Climate Actions and Disaster Risk Assessment

Islamabad

[Details / Registration](#)

10 11-12 Nov 2026

International Conference on Artificial Intelligence for Cyber and Crime Forensics (AI2CF-2026)

Lahore Garrison University, Lahore

[Details / Registration](#)

11 16-20 Nov 2026

Earth Observation with Optical and SAR Data

SUPARCO, Karachi

[Details / Registration](#)

12 17-18 Nov 2026

International Conference on Digital Futures and Transformative Technologies (ICoDT2)

NUST, Islamabad

[Details / Registration](#)

Forthcoming Conferences & Technology Events - Pakistan

13 17-18 Nov 2026

International Conference on Advancement and Innovation: Artificial Intelligence and Machine Learning (AI2ML)

NUST, Islamabad

[Details / Registration](#)

14 18-19 Nov 2026

21st International Conference on Emerging Technologies (ICET 2026)

GIK Institute, Topi

[Details / Registration](#)

15 30 Nov-04 Dec 2026

Satellite-based Geological Mapping & Analysis

SUPARCO, Peshawar

[Details / Registration](#)

16 14-15 Dec 2026

23rd International Conference on Frontiers of Information Technology (FIT'26)

COMSATS University, Islamabad

[Details / Registration](#)

17 14-18 Dec 2026

Satellite-based Monitoring and Modeling Approaches for Climate-Induced Disaster

SUPARCO, Islamabad

[Details / Registration](#)

Forthcoming Conferences & Technology Events - International

01 04-06 Sep 2026

8th International Conference on Optoelectronic Science and Materials (ICOSM 2026)

Jinan, China

[Details / Registration](#)

02 07-11 Sep 2026

UN Workshop on the International Space Weather Initiative: AI-Enabled Space Weather for Global Cooperation and Capacity Building

Seoul, Republic of Korea

[Details / Registration](#)

03 11-13 Sep 2026

8th International Applied Mathematics, Modelling and Simulation Conference (AMMS 2026)

Paris, France

[Details / Registration](#)

04 12-16 Oct 2026

41st IEEE/ACM International Conference on Automated Software Engineering

Munich, Germany

[Details / Registration](#)

05 16-18 Oct 2026

14th International Conference on Smart Grid and Clean Energy Technologies

Sydney, Australia

[Details / Registration](#)

06 22-24 Oct 2026

5th Asian Conference on Frontiers of Power and Energy (ACFPE 2026)

Chengdu, China

[Details / Registration](#)

Forthcoming Conferences & Technology Events - International

07 23-25 Oct 2026

9th International Conference on Robotics, Control and Automation Engineering

Baoding, China

[Details / Registration](#)

08 24-26 Oct 2026

2nd International Conference on Civil Engineering and Sustainable Building (ICCESB 2026)

Fukuoka, Japan

[Details / Registration](#)

09 26-29 Oct 2026

ACS/IEEE International Conference on Computer Systems and Applications (AICCSA)

Sharjah, UAE

[Details / Registration](#)

10 02-06 Nov 2026

7th EAGE Global Energy Transition Conference & Exhibition

Hannover, Germany

[Details / Registration](#)

11 03-05 Nov 2026

14th International Conference on Control, Mechatronics and Automation

Bari, Italy

[Details / Registration](#)

12 06-08 Nov 2026

2nd International Conference on Energy Power System and Smart Grid Technologies 2026

Antalya, Turkey

[Details / Registration](#)

Forthcoming Conferences & Technology Events - International

13 17-20 Nov 2026

4th International Conference on Foundation and Large Language Models (FLLM2026)

Barcelona, Spain

[Details / Registration](#)

14 16-20 Nov 2026

International Conference on Artificial Intelligence Models and Systems (iAIMS 2026)

Barcelona, Spain

[Details / Registration](#)

15 09-11 Dec 2026

9th IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES2026)

Kuala Lumpur, Malaysia

[Details / Registration](#)

16 28-30 Jan 2027

International Informatics and Software Engineering Conference

Ankara, Turkey

[Details / Registration](#)

17 30 Jul 2027

6th International Multi-Conference on Artificial Intelligence Technology

Madinah, Saudi Arabia

[Details / Registration](#)

Technology, Trade & Partnership Opportunities

SheDev

Website Development & Digital Marketing | Gilgit, Pakistan

About SheDev

SheDev is a professional website development company delivering WordPress, Shopify, SEO and digital marketing solutions that help businesses generate leads, increase visibility and grow online through practical digital strategies.

Capabilities

- WordPress Development
- Shopify Development
- Wix Development
- Google My Business (GMB)
- SEO (Search Engine Optimization)
- Digital Marketing



WordPress Development

- Website Development
- Ecommerce Store
- Landing Pages
- Website Redesign



Shopify Development

- E-commerce store setup
- Product pages
- Payment integration



Wix Development

- Small business websites
- Quick deployment solutions



Google My Business (GMB)

- Profile setup & optimization
- Local SEO ranking

Contact

SheDev Office, Naveed
Shaheed Rd, Sonikot, Gilgit

+92 3485002492

info@shedev.pk

<https://shedev.pk/>

[Visit organization website](https://shedev.pk/)

Technology, Trade & Partnership Opportunities

Enercom Technologies

Electronics Manufacturing | Karachi, Pakistan

About Enercom Technologies

Enercom Technologies is a Pakistan-based electronics manufacturing company with a facility in Karachi's Korangi Industrial Park. The company manufactures smartphones and feature phones for global brands and reports a daily production capacity exceeding 10,000 devices.

Capabilities

- Electronics Manufacturing
- Smartphones & Feature Phones
- Quality Manufacturing
- Production Capacity >10,000 devices/day
- Partner-oriented manufacturing



Contact

Plot No. LE-10-A8, National Industrial Park, Korangi Creek, Karachi

021-33382827

info@enercom.com.pk

<https://enercom.com.pk/>

[Visit organization website](https://enercom.com.pk/)

Sources, Image Credits & Issue Register

Image credits: supplied in the source draft unless otherwise stated. Click 'Read source' for the referenced item.

Pakistan Turns to China's AI for Disaster Forecasting 1 eCommerce Pakistan Read source	Pakistan's Young Builders Gear Up for Season 2 10 TechJuice Read source	Plastic Waste Converted into Jet Fuel 19 TechXplore Read source
Pakistani Researcher Recognized by NASA for... 2 Pakistan Today Read source	Punjab to Introduce AI as Compulsory Subject in Primar... 11 TechJuice Read source	CXMT Raises \$8.6 Billion to Challenge Global Chip Giants 20 Digital Citizen Read source
China Launches Digital Skills Training for Pakistani Youth 3 TechnologyPlus Read source	Switzerland Tests Solar Panels on Railway Tracks 12 ArchDaily Read source	Rice's Strange Property Unlocks Smart Material 21 SciTechDaily Read source
Freelancers Set New Earnings Record in FY26 4 TaxationPK / SBP Read source	3D Camera Captures Motion of Tiny Particles 13 Electropages Read source	A New Cancer Treatment Strategy to Prevent Resistance 22 OmniCuris Read source
Islamabad to Get AI-Powered Traffic Signals 5 Associated Press of Pakistan Read source	Xiaomi Unveils Radar-Powered Smart Shower Heater 14 Notebookcheck Read source	Water-Diesel Blend Cuts Engine Pollution by 67% 23 Good News Network Read source
Pakistan Joins Global AI Body as Founder 6 The Daily CPEC Read source	Scientists Find Signal to Forecast Solar Cycle Strength 15 Bioscience.com.pk Read source	New Lidar Chip Expands Self-Driving Vision 24 Interesting Engineering / MIT Read source
Pakistan Showcases Robotics and Autonomous Technology 7 Radio Pakistan Read source	Scientists Develop Methods to Destroy Forever Chemicals 16 Phys.org Read source	Student's £30 Device Translates In Real Time 25 BBC Read source
AI Thermal Drones to Boost KP Police Security 8 Fetch Read source	Researchers Develop Programmable Directed Heat 17 Osaka Metropolitan University Read source	AI and the Future of Agriculture 26 IBM Think Read source
DynaSys and HEXING Advance AI Water Metering 9 DynaSys Networks Read source	Canada Discovers White Hydrogen in Canadian Shield 18 University of Toronto Read source	Plastic Waste Converted into Jet Fuel - secondary reference 27 South China Morning Post Read source



PAKISTAN SCIENTIFIC AND TECHNOLOGICAL INFORMATION CENTRE (PASTIC)

Technology Information Services (TIS)

About PASTIC

PASTIC is a premier organization in the field of S&T information and serves researchers and professionals through collecting, processing and dissemination of specialized information services. Its scope and facilities expanded after transfer to the Pakistan Science Foundation (PSF). PASTIC National Centre is located at Quaid-i-Azam University Campus, Islamabad. Its six sub-centres are located at Karachi, Lahore, Faisalabad, Peshawar, Muzaffarabad and Quetta.

SELECTED PUBLIC-FACING DATABASE RESOURCES

National Scientists Directory (NSD)	R&D Projects	R&D Equipment in Pakistan	Conferences, Workshops, Seminars & Proceedings
11,966+	11,000+	5,505	2,284+

PASTIC Main Services

1 National Science Reference Library	2 Abstracting & Indexing	3 Information Technology Support	4 Technology Information	5 Capacity Building	6 National & International Liaison	7 Reprographic
---	-----------------------------	-------------------------------------	-----------------------------	------------------------	---------------------------------------	-------------------

ONLINE INFORMATION RESOURCES

Scholarly Resources	Directories	Catalogues	S&T Portals
• Pakistan Science Abstracts (PSA) • National Journal Archive (NJA) • Selected Bibliographies on issues (Climate & Energy)	- National Scientists Directory (NSD) - R&D Projects - Scientific Equipment - S&T Periodicals Directory - R&D Institutions - Commercialisable Products - Industries/SMEs - Scientific Societies/Associations - Libraries of Pakistan	• PakCat (Library books) • Books (Pakistani Authors) • Union Catalogue (Journals) • Digital Repository (reports, projects, thesis, conference proceedings etc.)	• SAARC WE Portal • IFAP • COVID-19 • CSTRDLP

