



# COMSATS Newsletter

Commission on Science and Technology for Sustainable Development in the South (COMSATS)

Issue 3, Volume 17

May - June 2025



Group photo after the Inaugural Session of the High-Level Seminar on the Climate–Agriculture Nexus, held to mark World Environment Day 2025. Federal Minister for Climate Change and Environmental Coordination, Dr. Musadik Masood Malik, graced the event as the Chief Guest. Read more on page 12.

## Inside this Issue

From the Executive Director's Desk

1

Highlights from COMSATS Secretariat

2

Some Activities of COMSATS' Centres of Excellence

18

Announcements

26

**Patron:**  
Ambassador Dr. M. Nafees Zakaria  
Executive Director COMSATS

**Editor:**  
Mr. Farhan Ansari

**Compiled, Designed & Developed by:**  
Mr. Imran Chaudhry

## From the Executive Director's Desk

Science, Technology, and Innovation (STI) continue to reshape the global development landscape, offering powerful tools for socio-economic transformation. Emerging technologies such as artificial intelligence, biotechnology, advanced materials, blockchain, and IoT are increasingly becoming central to national development strategies, enabling new models of productivity, environmental stewardship, and social inclusion. As the world navigates the complexities of the Fourth Industrial Revolution, the ability of developing countries to harness these technologies will determine their resilience, competitiveness, and progress towards the Sustainable Development Goals (SDGs). Guided by this global transition, COMSATS places strong emphasis on leveraging STI—including electric mobility, clean energy technologies, and high-impact digital tools—as engines of socio-economic uplift across the Global South.

During the reporting period, COMSATS remained engaged in productive scientific activities and strengthened international partnerships, reaffirming its commitment to harnessing science, technology, and innovation for the socio-economic advancement of its Member States. The activities reflected in this issue demonstrate COMSATS' role in promoting collaborative research, capacity building, and technology-driven solutions to address shared challenges.

COMSATS' participation in the Pakistan Expo on Disaster Risk Reduction (PEDRR-2025), organized by NDMA, highlighted the potential of AI, quantum technologies, and digital twins in enhancing multi-

hazard early warning systems. Chairing the high-level seminar on AI-driven forecasting, I underscored the need for ethical frameworks and cyber-secure infrastructures alongside technological innovation. The MoU signed between NDMA and COMSATS Internet Services (CIS) reflects our practical support for telehealth, ICT-based capacity development, and improved disaster management, which are critical components of resilient socio-economic development.

Strengthening innovation ecosystems also remained a priority. The international workshop on University–Industry–SME collaboration brought together over 250 experts from institutions such as UNIDO, INSME, OSTIM University, Pardis Technology Park, and the South Centre. Discussions highlighted the need for cohesive policies, entrepreneurial skills, and stronger institutional linkages to accelerate commercialization of research—an essential step toward building innovation-driven economies in developing countries.

Tech-innovation for health was promoted through the jointly organized international conference on Modern MRI, drawing participants from more than twenty countries. The event emphasized advancing diagnostic capabilities, AI-enabled imaging, and HPC-based medical solutions to benefit underserved populations across Member States.

COMSATS' climate action initiatives also gained momentum. A strategic coordination meeting

**continues on page 03**

✉ newsletter@comsats.org ☎ (+92-51) 9214515-7

## HIGHLIGHTS FROM COMSATS SECRETARIAT

### Executive Director COMSATS highlighted AI-Driven Resilience at Pakistan Expo on Disaster Risk Reduction (PEDRR-2025)

On 7th May 2025, in a resounding affirmation of COMSATS' enduring commitment to fostering regional resilience and technological foresight, His Excellency Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, chaired a high-level seminar at the 2nd Pakistan Expo on Disaster Risk Reduction (PEDRR-2025). Convened under the aegis of the National Disaster Management Authority (NDMA), Government of Pakistan, the Expo served as a confluence of national resolve and global innovation, dedicated to advancing Pakistan's disaster risk governance and climate resilience.

The high-profile event, graced by the presence of H.E. Dr. Musadiq Malik, Federal Minister for Climate Change and Environmental Coordination, drew participation from senior policymakers, representatives of multilateral agencies, scholars, and industry pioneers. The Expo underscored Pakistan's unwavering commitment to mitigating disaster risks amidst its heightened climate vulnerability, while also providing a strategic platform for knowledge diplomacy, policy convergence, and technological collaboration.

Ambassador Dr. Zakaria chaired the thematic Seminar 3: "Open Innovation: AI-Powered Multi-Hazard Impact-Based Forecasting and Early Warning", which featured eminent domain experts including Dr. Rizwan Riaz (Pro-Rector, NUST), Dr. Tayyab (GM Risk Assessment, NDMA), Ms. Zahra Hassan (GM GIS, NDMA), Dr. Ali Hassan (NUST), and Dr. Hammad Majeed (Genesys Research Lab). The session facilitated



a robust discourse on harnessing artificial intelligence and emerging digital technologies to strengthen early warning systems and reduce the socio-economic toll of climate-induced hazards.



In his address, Dr. Zakaria underscored the pivotal role of Artificial Intelligence (AI), quantum technologies, and big data analytics in transforming disaster preparedness and mitigation. Citing the World Meteorological Organization's (WMO) sobering statistic of over 2 million fatalities and \$4.3 trillion in economic losses due to weather-related disasters between 1970 and 2021, he called for an urgent and integrated technological response.

He underscored COMSATS' pivotal role as an intergovernmental platform comprising 27 member states and a robust network of 25 Centres of

Excellence (CoEs), several of which are at the forefront of deploying AI-powered solutions for flood modeling, drought forecasting, seismic hazard mapping, and real-time environmental monitoring. Dr. Zakaria further expounded on the transformative potential of AI in anticipating climate-induced displacement, simulating disaster scenarios through digital twins, and augmenting the precision of early warning systems through the integration of quantum computing.

However, in tandem with optimism, he highlighted cautionary imperatives: the need for accountability frameworks in AI decision-making, the development of explainable and ethical AI models, safeguarding cyber-physical systems from intrusion, and ensuring that local vulnerabilities and indigenous knowledge systems are coherently integrated into AI-based risk assessments.

The PEDRR-2025 Expo served as a compelling demonstration of Pakistan's forward-leaning approach to climate adaptation and its ambition to spearhead innovation-driven and globally collaborative solutions. In this context, COMSATS reaffirmed its unwavering commitment to fostering inclusive, AI-enabled, and contextually grounded resilience architectures—aligned with international disaster risk reduction frameworks and the



overarching vision of South-South cooperation.

The event concluded with a strong emphasis on cross-sectoral partnerships and transnational collaboration, aligning national priorities with global frameworks such as the Sendai Framework for Disaster Risk Reduction and the 2030 Agenda for Sustainable Development.

As a longstanding institutional partner of NDMA, COMSATS continues to play a catalytic role in regional capacity-building and disaster response innovation. Reinforcing this

collaboration, an MoU was formalized between COMSATS Internet Services (CIS) and NDMA, marking a strategic step toward leveraging digital technologies—including tele-health and ICT-enabled training—for improved disaster readiness and humanitarian response.

### COMSATS Workshop on Industry-Universities alignment, Promoting Research Institutions and SMEs Collaboration

In pursuit of fostering dynamic linkages between academia, research institutions, and small and medium enterprises (SMEs), COMSATS convened a high-level international capacity-building workshop titled “Enhancing University–Business and R&D–SME Collaboration for Innovation and Growth” on 27th May 2025, Islamabad, Pakistan.

The virtual event brought together a diverse cohort of stakeholders, including academic faculty, innovation managers, researchers, policymakers, and public–private sector actors from COMSATS’ Centres of Excellence, member states, partner institutions,



*...continued from page 1*

of the COMSATS Centre for Climate and Sustainability (CCCS) brought together experts from China, Ghana, Indonesia, Sri Lanka, Jordan, Egypt and other countries to accelerate the operationalization of thematic research clusters, expert pools, and cross-border scientific collaboration.

COMSATS co-hosted a high-level seminar on World Environment Day with the Ministry of Climate Change & EC, NDMA, NDRMF, ECOSF, ICARDA, FACE, and WHH, focusing on climate adaptation across the food–water–agriculture nexus and the importance of innovation-led resilience. These efforts complement COMSATS’ growing thrust in clean energy and e-mobility, including its initiatives to promote local EV retrofitting technologies. Promoting electric vehicles across Member States contributes directly to reducing carbon emissions, lowering fuel costs, and creating new green-economy jobs—thereby advancing both environmental sustainability and socio-economic uplift.

International scientific cooperation expanded through COMSATS’ contributions to global forums, including the African Symposium on Big Data and the TYAN Thematic Workshop in Nigeria. An MoU with NIMA on maritime sustainability marks a major step in promoting oceanographic research, coastal resilience, and blue-economy initiatives. Meanwhile, a tripartite MoU with IBI International Group (China) and AGECO Pakistan will advance cooperation in electric vehicles, clean energy, and precision agriculture—areas central to COMSATS’ mission of driving socio-economic uplift through transformative technologies.

Digital transformation remained central to our agenda. An international webinar marking WTISD 2025, co-organized with MoITT, ITU, ANSO, TÜBİTAK, NADRA, GDIP, and others, emphasized inclusive digitalization aligned with the SDGs. Moreover, Digital Skills Training Programme continues to empower youth in Pakistan’s Merged Districts, contributing to economic resilience.

These initiatives reaffirm COMSATS’ founding vision of bridging technological divides through cooperation and shared scientific progress. Working together, we can drive evidence-based, inclusive, and sustainable development across the Global South. I welcome the valuable feedback and suggestions of our readers as we continue to refine and strengthen our collective efforts.



academic and research institutions, ORIC, SMEs and industry worldwide. The workshop identified ways and means to strengthen institutional capacities to facilitate industry–academia collaboration, catalyze innovation ecosystems, and drive sustainable, knowledge-based economic transformation in the Global South.

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, underscored the structural asymmetries in university–industry collaboration between the Global North and South. Citing comparative data, he observed that while OECD countries achieve nearly 50% R&D collaboration between academia and industry, the corresponding figure in the Global South remains below 15%. He further highlighted empirical evidence suggesting that nearly half of all industrial innovations in the North emerge within a 30-kilometre radius of a university, emphasizing the imperative

for proximal, trust-based academic–industry linkages. Ambassador Dr. Zakaria also stressed the critical role of national governments as enablers of such synergies—through fiscal incentives, innovation infrastructure, and coherent policy frameworks.

The technical session featured distinguished international experts, including: Dr. Carlos María Correa, Executive Director, South Centre (Italy), Mr. Eri G. Jorge, Senior Specialist, UNIDO (Paraguay), Ms. Livia Adinolfi, Project Officer, International Network for Small and Medium Enterprises (INSME) (Italy), Prof. Dr. Ufuk Türen, Vice Dean, OSTIM Technical University, Mr. Reza Aslani, Head of International Affairs, Pardis Technology Park (Iran). Their interventions addressed strategic frameworks and enabling mechanisms for university–SME engagement, highlighting real-world models of innovation diplomacy, entrepreneurial capacity-building, and market-oriented research commercialization. Q&A

session followed the presentations.

Core thematic areas covered during the session included: Entrepreneurial competencies and the EntreComp framework; Mechanisms for mutual value creation between academia and SMEs; Informal and formal models of R&D–industry collaboration; Governance and policy instruments supporting innovation partnerships; the role of universities in community-centric innovation and green growth.

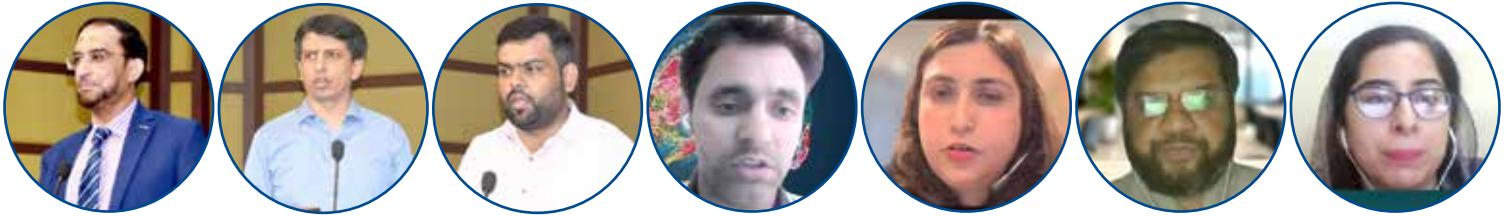
More than 250 participants from national and international institutions benefitted from the deliberations, which concluded with a reaffirmation of the need for sustained multi-stakeholder cooperation to unlock the innovation potential of emerging economies.

### COMSATS & CUI hold Conference on MRI, focusing AI-Driven Applications

COMSATS and its Centre of Excellence, the COMSATS University Islamabad (CUI), Pakistan, held a Conference on ‘Modern Magnetic Resonance Imaging (MRI): From Core Principles to AI-Driven Applications’ on May 29, 2025. Aligned with the UN Sustainable Development Goal 3 (Good Health and Well-being), the event explored the transformative potential of MRI — a technology that has redefined diagnostics and continues to evolve with groundbreaking innovations in medical domain.

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS,





in his opening remarks underlined that MRI technology has been a cornerstone of modern healthcare. Yet as with many advanced technologies, its benefits are not equally accessible. He highlighted that MRI facilities are primarily concentrated in urban centers, while rural areas face significant challenges due to high costs, limited infrastructure, and a shortage of trained professionals. Being a proponent of technology driven services and solutions for the benefit of common people, Amb. Zakaria stated that COMSATS remains committed to addressing such challenges through knowledge exchange, capacity-building, and partnerships to promote affordable and sustainable solutions for its Member States. He informed that COMSATS aims to conduct specialized training workshops and conferences on cutting edge technologies, including EV, nanotech, AI, ICTs, IOT, Genomic sequencing, precision medicine, smart and precision agriculture, among other areas.

Prof. Dr. Sajid Qamar, Rector CUI, highlighted that MRI has evolved to become one of the most powerful

tools in medical diagnostics. He accentuated the positive impact of AI on MRI's precision, speed, clarity and personalization of treatment, calling on participants to embrace interdisciplinary collaboration to shape the future of healthcare. Prof. Qamar endorsed Amb. Zakaria's vision of organizing capacity building activities in the Member States, and offered CUI's support for the same.

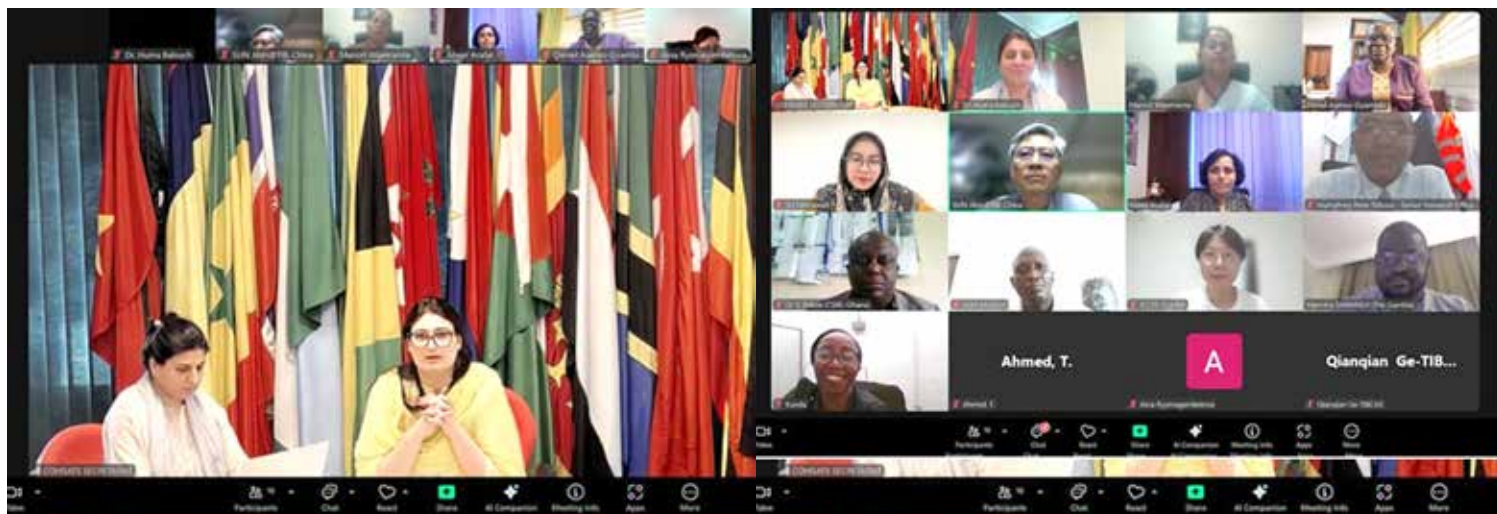
The specific topics covered during the Conference included: Fundamentals of MRI, related AI-Driven Innovations, Advanced Acceleration Methods, Role of High Performance Computing (HPC) and Digital Design Framework in accelerating Image Reconstruction, and Emerging Applications of MRI, including Advanced Neuroimaging and Brain Health.

The Conference attracted 150 online as well as in-person participants from Health Ministries, research institutions, academia, hospitals and laboratories, from COMSATS' Member States and other countries, including Australia, Egypt, Gambia, Jamaica, Jordan, Kazakhstan, Kenya, Malaysia, Nigeria,

Pakistan, Palestine, Sri Lanka, Saudi Arabia, Syria, Turkiye, UAE, USA and Zimbabwe. The event program featured technical talks by 9 Experts from institutions in Pakistan, Sweden, Switzerland and the UK, who shared their expertise and knowledge related to the theme, followed by an interactive session that called for the researchers and practitioners to come together for advancing MRI technologies in order to benefit the masses.

### **Virtual Session Reviews Progress and Enhances Coordination Among CCCS Member Institutions**

As a continuation of the strategic deliberations undertaken during the 24th and 25th meetings of the COMSATS Coordinating Council—particularly those germane to the mandate of the COMSATS Centre for Climate and Sustainability (CCCS)—a virtual coordination meeting was organized on 2nd June 2025 by representatives of the CCCS Secretariat. The session was convened with the objective of assessing progress on



previously endorsed resolutions and formulating actionable pathways for their implementation. Participants included focal persons and domain experts from the Member Institutions comprising the CCCS network.

The convening was marked by broad geographic and institutional representation from across COMSATS Member States. Distinguished participants included Prof. Jibin Sun (Tianjin Institute of Industrial Biotechnology, China); Dr. Daniel Asenso-Gyambibi and Dr. Stephene Bekoe (Council for Scientific and Industrial Research, Ghana); Dr. Sri Fatmawati (Institut Teknologi Sepuluh Nopember, Indonesia); Ms. Manori Wijemanne (Industrial Technology Institute, Sri Lanka); Engr. Abeer Arafat (Royal Scientific Society, Jordan); and Dr. Aiman El-Sayed (National Research Centre, Egypt), alongside representatives from the Tanzania Industrial Research and Development Organization (TIRDO, Tanzania), the National Mathematical Centre (Nigeria), and others.

The meeting commenced with remarks underscoring the imperative of enhanced intra-network coherence and collaborative engagement. Representing the Secretariat, Dr. Mehwish Durani, Head COMSATS

Centre for Climate and Sustainability (CCCS) acknowledged CCCS's growing international footprint—including participation in COP29 and technical exchanges with TWAS—while emphasizing the exigency of transitioning from symbolic affiliation to sustained, results-driven cooperation among the Centres of Excellence (CoEs).

The Secretariat apprised participants of ongoing collaborative frameworks and highlighted emerging opportunities for strategic alignment with international organizations. In this context, institutions were urged to expedite the formal nomination of Liaison Officers to facilitate structured communication and responsiveness. Additionally, institutions were requested to submit profiles of subject-matter experts for inclusion in the CCCS Expert Pool and Resource Directory, thereby enabling agile mobilization of technical capacity.

Substantive discussion centered on the operationalization of research clusters aligned with CCCS's thematic priorities. Dr. Sri Fatmawati advocated a pragmatic, bottom-up model leveraging existing national initiatives, further proposing technical site visits and personnel exchanges to strengthen inter-institutional linkages.

Ms. Manori Wijemanne emphasized the necessity of engineering tangible, technology transfer mechanisms to empower local industries and SMEs. The Secretariat concurred, citing ongoing efforts in policy advisory and capacity development. Echoing this perspective, Engr. Abeer Arafat called for a paradigm shift toward well-funded, goal-specific collaborations and cautioned against overreliance on externally dictated platforms incongruent with COMSATS' core mission.

Prof. Jibin Sun accentuated the role of COMSATS in bridging science and policy, encouraging joint prioritization of regional research imperatives. Dr. Daniel Asenso-Gyambibi reaffirmed CSIR Ghana's commitment to strengthened participation, drawing attention to the versatility of CSIR's multidisciplinary research ecosystem in addressing climate-linked challenges.

Institutions were also urged to expedite responses on pending Memoranda of Understanding and joint work plans, which are critical for formalizing collaborative intentions and synchronizing institutional resources. In anticipation of upcoming international engagements and funding opportunities, the CCCS Secretariat proposed the institution of monthly virtual coordination meetings. The



meeting reiterated the importance of timely institutional responses to global calls—such as the underutilized CAS President’s International Fellowship Initiative—and advocated for multi-institutional, co-authored submissions led by designated CoEs.

In closing, the CCCS Secretariat reasserted the urgency of actualizing past Council directives through institutionalized mechanisms of high-impact collaboration. Member Institutions were strongly encouraged to reaffirm their commitments by nominating Liaison Officers, participating actively in thematic research clusters, and advancing the development of bilateral and multilateral collaboration frameworks.

### **COMSATS and NIMA Forge Strategic Partnership to Advance Maritime Sustainability and Climate Resilience**

On 3rd June 2025, COMSATS and the National Institute of Maritime Affairs (NIMA) have formalized a strategic partnership through the signing of a Memorandum of Understanding (MoU), aimed at strengthening regional collaboration in maritime sustainability,

climate adaptation, and environmental stewardship.

The MoU was signed by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, and Vice Admiral Ahmed Saeed HI(M) (Retd), President of NIMA, during an International Seminar organized by NIMA to commemorate World Environment Day 2025. The ceremony was attended by stakeholders from academia, government, and scientific communities.

The milestone has its roots in the ongoing collaboration between COMSATS and NIMA, including COP29. These efforts have exemplified a shared vision to confront global environmental challenges through multilateral cooperation, with a special emphasis on capacity building and policy-oriented research for developing countries, particularly Pakistan.

The MoU envisages a comprehensive framework for collaboration among Global South. The MoU includes activities such as joint mobilization of academia, science and technology stakeholders, R&D institutions, and the private sector to drive innovation, institutional capacity building, and technology transfer across the maritime and climate domains.

The MoU covers priority areas viz. marine biotechnology, sustainable fisheries, oceanographic observation, maritime security, renewable ocean energy, and coastal zone management. It also encompasses co-hosting policy dialogues, symposia, expert-level meetings, and technical capacity-building initiatives, both regionally and internationally.

The collaboration aligns with COMSATS’ strategic commitment to leveraging Science, Technology, and Innovation (STI) for sustainable development across its 27 Member States, as well as NIMA’s mandate as a national think tank focused on maritime research, policy formulation, and the blue economy. Special emphasis will be placed on equipping coastal and vulnerable communities with data-driven, climate-resilient tools and approaches.

This MoU marks a significant step toward integrated, technology-led solutions for sustainable ocean governance and affirms the Parties’ resolve to support evidence-based policymaking, marine environmental protection, and resilient maritime economies in the Global South.

## Webinar on Digital Transformation organized to commemorate WTISD2025

On 17th June 2025, COMSATS organized an international webinar, "Towards Digital Transformation: Ensuring an Equitable and Inclusive Society", to commemorate the World Telecommunication and Information Society Day (WTISD) 2025.

The event was organized with support of the Ministry of Information Technology & Telecommunication (MoITT), Government of Pakistan; International Telecommunication Union (ITU); the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO); National Science and Technology Development Agency (NSTDA), Thailand; The Scientific and Technological Research Council of Türkiye (TÜBİTAK), Türkiye; Tanzania Industrial Research and Development Organization (TIRDO), Tanzania; National Database and Registration Authority (NADRA), Pakistan; Global Digital Inclusion Partnership (GDIP); Arab International University (AIU), Syria; Linked Things, Pakistan; Smart And Living Technologies, Australia; and Jaffer Business Systems (JBS), Pakistan.

The webinar was graced by H.E. Shaza Fatima Khawaja, Federal Minister for Information Technology and Telecommunication, Government of Pakistan, as Chief Guest. Sharing her



thoughts at the occasion, Hon. Minister stated that the digital revolution has unleashed unprecedented opportunities for sustainable development, and the latest technologies are driving innovation, efficiency, and economic growth across various sectors and industries. She highlighted Pakistan's efforts to promote inclusive digital growth. Hon. Minister highlighted the Digital Pakistan Policy which aims to transform the country into a digitally empowered nation by fostering a dynamic digital society, robust digital economy, and efficient digital governance. She underscored the significance of international partnerships and cooperative digital ecosystems, and lauded COMSATS' efforts in this regard.

During his opening remarks, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, stated that the digital revolution is

transforming our world, breaking barriers and opening new avenues, yet, he remarked, its true potential lies in ensuring that no one is left behind. He noted that many of the developing countries are still catching up, constrained by insufficient finances, unskilled human resource, lack of technological knowhow, and inadequate policies. He stressed the urgency of ensuring digital inclusion through infrastructure development, skills training, and strategic collaboration at regional and global scale. Amb. Zakaria reaffirmed COMSATS' commitment to optimally utilizing digital technologies, such as AI, IoT, blockchain, quantum computing, next-gen connectivity for bringing about equitable socio-economic development in the Global South.

Prof. Dr. Sukit Limpijumong, the President of Alliance of National and





International Science Organizations for the Belt and Road Regions (ANSO) and the National Science and Technology Development Agency (Thailand), in his remarks at the occasion, highlighted the need for stronger regional cooperation for reaping dividends of digital transformation. He shared programs and activities of ANSO aimed at digital transformation, including the capacity-building initiatives in AI and IoT through international academic forums and training programs for young scientists. He also shed light on NSTDA's research activities focused at the adequate use of digital technologies for addressing socio-economic challenges. He considered initiatives such as this webinar a step towards fostering global cooperation and bridging digital divide in line with the Sustainable Development Goals.

The technical session of the Webinar included eight expert talks/presentations by resource persons representing international organizations, R&D and academic institutions, as well as the industry.

Mr. Calvin Chan, Programme Administrator, ITU Regional Office for Asia and the Pacific, shared ITU's studies on global connectivity data, revealing that 2.6 billion people still lack Internet access. He introduced initiatives such as GovStack and Smart Villages, which can facilitate the implementation of a whole-

of-government approach to digital transformation.

Mr. Ajmal Anwar Awan, Director General, Digital Economy Enhancement Project (DEEP) at NADRA Pakistan, highlighted the transformative role of digital ID systems in improving public service delivery and enabling financial inclusion. He highlighted that digital IDs not only drive efficiency and reduce fraud, but also unlock economic potential, with McKinsey estimating a contribution of up to 3% of global GDP by 2030. He shared Pakistan's ongoing efforts under the DEEP initiative, supported by the World Bank and MoITT-Pakistan, to establish a secure and inclusive digital identity ecosystem.

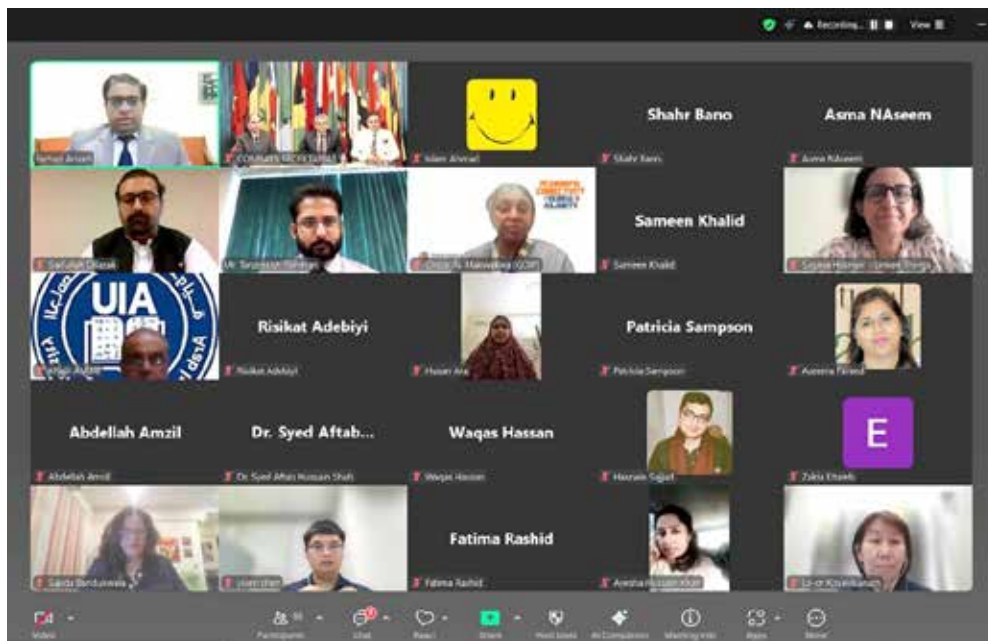
Dr. La-Or Kovavisaruch, Researcher, NSTDA-Thailand, presented the case of Museum Pool as a collaborative platform supporting digital transformation in cultural institutions, particularly in underserved areas. She emphasized how virtual exhibits, metadata tagging, and multilingual support can help reduce inequalities in access to culture, aligning with SDGs 9, 10, and 17. She highlighted that overcoming funding gaps, skills shortages, and cultural sensitivity challenges is key to enabling inclusive digital engagement across communities.

Dr. Taner Dursun, Head of the

Blockchain Technologies Division at TÜBİTAK, Türkiye, highlighted the role of blockchain in addressing equity and inclusion challenges. He shared Türkiye's progress in developing a blockchain-based national digital identity system and the Digital Turkish Lira, both designed with accessibility and trust at their core. He informed that these initiatives are paving the way for inclusive e-governance and secure digital public services.

Engr. Sophia Hasnain, CEO of Linked Things, Pakistan, highlighted the urgent need for digitalization in manufacturing sectors across the Global South to address inefficiencies, meet ESG standards, and remain globally competitive. She emphasized that Industry 4.0 technologies, such as IoT, AI, big data, and robotics, can significantly enhance operational efficiency, optimize resources, and enable accurate carbon reporting. Citing success stories from Pakistan's textile and food processing industries, she advocated for government incentives, local capacity building, and upskilling targeted workforce to accelerate adoption.

Engr. Ester Lázaro, Head, Electronics & Instrumentation Technology Section, TIRDO, Tanzania, discussed how AI applications are helping to address healthcare challenges in resource-constrained environments. She



highlighted ongoing efforts in Tanzania to integrate AI tools for diagnostics, patient monitoring, and healthcare system optimization, particularly for chronic disease management and maternal health. Despite infrastructure and workforce limitations, she noted significant growth in Tanzania's AI healthcare market, supported by government initiatives and hospital-level innovations.

Dr. Baber Majid Bhatti, CEO, Smart And Living Technologies, Australia, emphasized that successful digital transformation in Pakistan depends on foundational enablers, such as change management, data infrastructure, policy readiness, and international collaboration. He suggested a structured national approach that includes building digital vision frameworks, innovation labs, and interoperability standards to ensure responsive and citizen-centric governance. Dr. Bhatti opined that digital transformation must move beyond slogans to action by empowering public sector leadership and aligning with SDGs for long-term impact.

Prof. Dr. Khalil Ajami, Professor at Arab International University, Syria, highlighted how post-conflict realities and infrastructure gaps can hinder equitable access to education and employment in digital economies. He emphasized the need for aligning digital transformation and e-governance strategies with local socio-cultural and ecosystem needs, and advocated for inclusive, interdisciplinary curricula that integrate AI, cloud-based learning, and mobile access. He stressed that using digital learning platforms and gender-sensitive AI tools, education systems can suitably support recovery, inclusion, and long-term governance reforms.

A key feature of the Webinar was a Panel Discussion on "Gender Equality in Digital Transformation", which was moderated by Ms. Sajida Bandukwala, Head of Marketing and Innovation at Jaffer Business Systems, Pakistan. Among the six panelists was Ms. Onica N. Makwakwa, Executive Director, Global Digital Inclusion Partnership (GDIP), who emphasized the role of international partnerships in shaping gender-equitable policies and embedding gender inclusion across ICT frameworks. Dr. İpek Baz, Coordinator of

the Competence Center at the Artificial Intelligence Institute, TÜBİTAK, Türkiye, deliberated on inclusive AI strategies, such as bias auditing, engaging women at the forefront of tech development, and integrating gender criteria into national programs.

Mr. Ajmal Anwar Awan was of the view that designing national ID systems is imperative for improve women's digital and financial inclusion. Prof. Dr. Khalil Ajami highlighted the need for gender-sensitive academic policies, evening programs for rural women, and dedicated research funding on gender issues in digital innovation. Dr. Babar Majid Bhatti pointed to systemic biases and advocated for improving device affordability, digital literacy, and female representation in decision-making bodies. Engr. Sophia Hasnain called for challenging gender norms in tech, supporting women-led startups, and creating inclusive innovation policies.

The webinar brought together over 140 participants from 17 countries, i.e., Afghanistan, Egypt, Ghana, Jamaica, Jordan, Kenya, Morocco, Nigeria, Pakistan, South Africa, Sudan, Syria, Tanzania, Thailand, Türkiye, USA and Yemen. The attendees represented academia, government bodies, international development organizations, and private tech companies.

During his concluding remarks, the Executive Director COMSATS thanked the speakers and participants for their insightful contributions and emphasized that digital transformation must be inclusive, collaborative, and aligned with sustainable development goals. He reaffirmed COMSATS' readiness to partner with international stakeholders to scale innovation and capacity-building across its Member States.

## 4th African Symposium on Big Data and 18th TYAN Thematic Workshop kicks off @Nigeria, COMSATS collaboration and contributions lauded

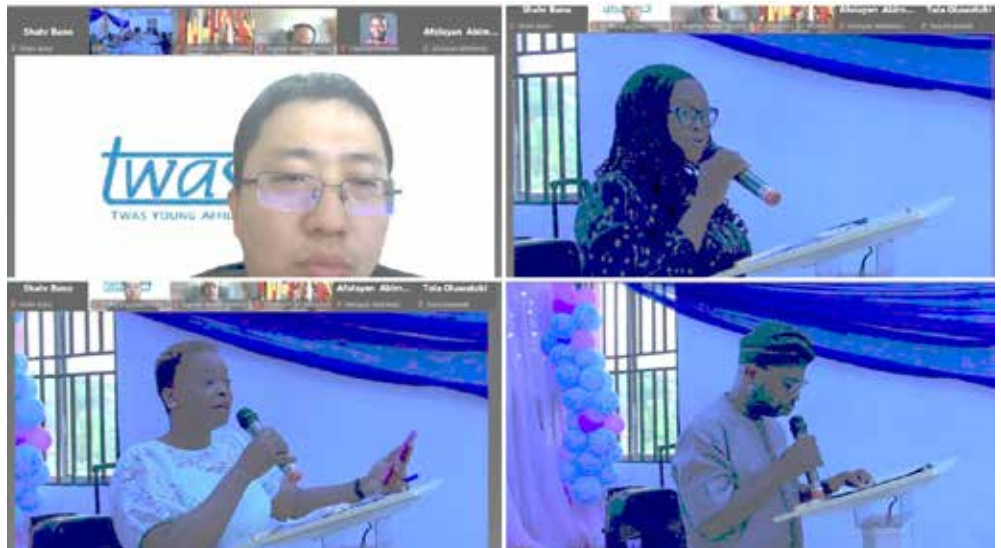
On 18th June 2025, in the spirit of South-South cooperation for technological advancement and data governance, COMSATS actively collaborated in the 4th African Symposium on Big Data, Analytics and Machine Intelligence, held concurrently with the 18th International Thematic Workshop of the TWAS Young Affiliates Network (TYAN).

The 3-day event, held at the Federal University of Technology Akure (FUTA), Nigeria, was jointly organized by a consortium of institutions, including TYAN, Nigeria Computer Society (NCS), TWAS Sub-Saharan Africa Regional Partner (TWAS-SAREP), Automated Contact Tracing Research Group (ACTRG), GigaScience Press, and Inspire-Shine Technovative Laboratories.

The Symposium was participated by the leading domain experts, policymakers, early-career researchers, and technologists to deliberate on the strategic deployment of Artificial Intelligence (AI), Big Data, and Machine Learning (ML) as critical enablers of sustainable development, climate resilience, and next-generation digital governance.

COMSATS, as an intergovernmental organization committed to fostering South-South cooperation in science, technology, and innovation, supported the event through targeted with substantive contribution. The initiative provided an essential platform for dialogue, capacity-building, and collaborative innovation that underscores the organization's developmental mandate.

Ambassador Dr. Mohammad Nafees



Zakaria, Executive Director COMSATS, in his inaugural speech underlined the urgency of harnessing the exponential growth in data—generated across diverse sectors such as healthcare, financial services, climate systems, discusses and diagnostics, and digital commerce—for actionable insights and policy formulation. “In the era of ubiquitous data, true value emerges only when it is processed through robust analytical frameworks, aligned with privacy protection and regulatory oversight,” Dr. Zakaria remarked.

Citing the multi-sectoral application of the latest technologies by COMSATS' Centres of Excellence—including

in telehealth, climate resilience, and emerging domains such as nanotechnology and electric vehicle systems—Dr. Zakaria invited greater engagement from African Member States to benefit from COMSATS' skill-development programmes in areas such as AI, Web and Mobile Development, e-Commerce, Business Intelligence, and Software Quality Assurance.

High-standing speakers from across the African continent and beyond, including Germany, the United Kingdom, the United States, Egypt, South Africa, and Morocco figured at the symposium. The thematic deliberations spanned sustainable healthcare, smart urban



infrastructure, climate-smart agriculture, fintech, data security, and food systems—all framed within the broader imperative of leveraging digital tools for equitable and resilient development.

Executive Director COMSATS expressed appreciation to Professor Bolanle Ojokoh of FUTA, a distinguished member of COMSATS' Technical Advisory Committee, for her instrumental role in strengthening this strategic collaboration.

Prof. Bolanle and other Speakers lauded COMSATS support to the Symposium and pivotal it is playing to keep pace with fast developing technologies.

### High-Level Seminar on Climate-Agriculture Nexus marks World Environment Day 2025

On 20th June 2025, in observance of World Environment Day 2025, COMSATS, in strategic collaboration with the Ministry of Climate Change and Environmental Coordination (MoCC&EC), National Disaster Management Authority (NDMA), the United Nations Environment Programme – NAP Pakistan, ECO Science Foundation (ECOSF), National Disaster Risk Management Fund (NDRMF), International Center for

Agricultural Research in the Dry Areas (ICARDA), Welthungerhilfe (WHH), and the Food Security and Agriculture Center of Excellence (FACE), convened a high-level national seminar under the thematic focus "Bridging the Climate-Adaptation Divide Across the Food-Water-Agriculture Nexus."

Hosted at the NDMA Auditorium in Islamabad, the event served as a timely forum for galvanizing multisectoral dialogue on the disproportionate climate vulnerabilities faced by agrarian economies, with particular emphasis on adaptation asymmetries in the Global South.

The seminar brought together a distinguished gathering of over 200 high-profile participants, including senior officials from federal ministries, climate scientists, development practitioners, multilateral partners, and representatives from academia, civil society, and the private sector. Notably, Ambassadors and deputy Heads of Mission from Malaysia, Kazakhstan, Ethiopia, Sri Lanka, Yemen, Turkmenistan, Sudan, Somalia, Syria, Tunisia, and Azerbaijan attended, reflecting strong diplomatic engagement and international support for climate action. Deliberations focused on identifying actionable pathways

to address the complex interlinkages between climate change, agriculture, food insecurity, and water governance, with particular emphasis on adaptation financing, technology dissemination, and regulatory coherence.

Federal Minister for Climate Change and Environmental Coordination, Dr. Musadik Masood Malik, who graced the occasion as Chief Guest, delivered a compelling and intellectually charged address, sharing candid views on the very concept of climate action strategy, climate financing, and self-strength to tackle climate challenges. He also reflected on Pakistan's approach in curbing carbon emissions and the gaps in climate governance involving multiple stakeholders. He articulated the stark paradox of water accessibility—where abundance coexists with the urgent need for professional management—while expressing concern over the widespread wastage of resources and the lack of access to safe drinking water for the common man. Dr. Malik underscored the strategic yet underexploited role of wetlands as nature-based solutions for carbon sequestration, advocating for a paradigm shift toward ecological stewardship. He called for decisive action over continued dialogue and emphasized focus on global innovation



metrics and scientific publication indices. Notwithstanding these multifaceted challenges, he reaffirmed the Government's commitment to embedding adaptive capacity within national development frameworks and aligning Pakistan's climate aspirations with the imperatives of global sustainability regimes.

Honourable Justice Jawad Hassan, in an inspiring keynote address, underscored the judiciary's constitutional role in advancing environmental rights and intergenerational equity. Citing landmark cases, Justice Jawad illustrated how Pakistan's courts have progressively shaped climate justice through recognition of public trust doctrine and stakeholder coordination. Emphasizing the need for institutional reform, he called for integrated judicial education, legal curriculum reform, and technical capacity building. Stressing that compliance with climate treaties is a legal duty—not judicial activism—Justice Hassan advocated

a multidimensional approach linking climate justice, finance, and business, while highlighting the judiciary's vital role in ensuring equitable climate finance, fostering accountability, and enabling inclusive green development.

The thematic panel session featured thought leaders and climate experts, including H.E. Ms. Romina Khurshid Alam, Coordinator to the Prime Minister on Climate Change and Environmental Coordination; Lt. General Inam (HI-M), Chairman NDMA; Mr. Jahangir Piracha, Managing Director and CEO Fauji Fertilizer; Mr. Malik Amin Aslam Khan, former Federal Minister for Climate Change; Mr. Bilal Anwar, CEO NDRMF; and Dr. Muhammad Irfan Khan, Dean Faculty of basic and applied Sciences, International Islamic University Islamabad.

Panelists deliberated on a range of thematic issues including institutional fragmentation in climate and water governance; barriers to integrating

climate-smart agriculture at the provincial level; the catalytic role of public-private partnerships in mobilizing climate finance; and the need for adaptive R&D to mainstream locally grounded innovations. Among the salient takeaways were the strategic importance of embedding digital climate advisories, farmer-led innovation ecosystems, and predictive modeling in rural development policy; the prioritization of gender-sensitive, nutrition-informed adaptation frameworks; and the recalibration of climate finance portfolios to support long-term, programmatic infrastructure and ecosystem resilience.

Heads of the Institutions that joined hands to organize the event, Executive Director COMSATS- Ambassador Dr. Zakaria; Chairman NDMA-Lt. General Inam Haider Malik (HI-M); President ECOSF-Prof. Dr. Seyed Komail Tayebi; CEO NDRMF-Mr. Bilal Anwar, CEO FACE-Mr. Hasan Akram; Country Rep ICARDA-Dr. Imtiaz Muhammad;



and Country Director WHH-Ms. Aisha Jamshed; in their remarks underscored the imperative of science-driven diplomacy and South-South cooperation in navigating the climate crisis. Collectively, their statements delineated the contours of the adaptation divide and stressed the need for systemic, equity-driven responses to enhance climate resilience.

This high-level engagement reaffirmed the collective resolve of the participating institutions to advance multi-actor synergy, knowledge co-

production, and strategic resource mobilization aimed at bridging the climate-adaptation divide in Pakistan and across the Global South.

### High Commissioner of Bangladesh calls on Executive Director COMSATS

On 23rd June 2025, the High Commissioner of Bangladesh to Pakistan, His Excellency Md. Iqbal Hussain Khan, called on the Executive Director of COMSATS, Ambassador

Dr. Mohammad Nafees Zakaria, to explore avenues of cooperation. The High Commissioner was accompanied by couple of officers of the High Commission. Senior officers of COMSATS also attended the meeting.

During the meeting, the Executive Director gave a briefing on COMSATS to the High Commissioner. He introduced COMSATS as an intergovernmental organization of developing countries, having Bangladesh as a founding Member State. He informed that the very idea



of establishing COMSATS was coined by the Pakistani Nobel Laureate and Physicist, Prof. Dr. Abdus Salam, whose tireless efforts resulted in establishment of the organization in 1994. He apprised that the mission of COMSATS is to stride for providing tech-based solutions to Member States, now 27 in number, for facilitating their socio-economic development.

He briefed the High Commissioner that COMSATS performs its role through a number of Statutory bodies; a General Meeting having Heads of States/ Governments as members; Consultative Committee, represented by heads of Ministerial bodies, as well as the Coordinating Council, a representative

body of COMSATS Network composed of the Heads of its affiliated S&T Centres of Excellence. He remarked that the Network provides technical resource base for COMSATS' programmatic activities and that the Network now has 25 Centres as Members, latest being from Europe, the University of Granada, Spain. He informed that the Republic of Ghana holds the Chair of COMSATS and its incumbent President, Hon. John Dramani Mahama is the Chairperson of the Commission.

Briefing about the financial structure to support COMSATS, the Executive Director informed that as per its Statutes the Member States make Annual Membership Contributions

(AMC). In this regard, he informed the High Commissioner that a revised formula for AMC has been prepared by the Secretariat and shared with relevant statutory body.

He also presented a dossier containing the COMSATS' Performance Report, list of Clusters of COMSATS Centres of Excellence, and recent correspondence with COMSATS' Member States regarding the AMC. Ambassador Zakaria highlighted COMSATS' ongoing initiatives, including advancements in Electric Vehicle (EV) technologies for sustainable growth and the establishment of an ISO-certified Nanotechnology Lab. Additionally, he shared details about postgraduate scholarships offered by COMSATS' Centres of Excellence, such as the recent scholarship offerings by COMSATS University Islamabad (CUI).

The High Commissioner commended COMSATS for its efforts in advancing tech-based solutions and upholding the legacy of Prof. Abdus Salam. He also appreciated the Executive Director for the new initiatives he has taken. He expressed great interest in enhancing academic collaboration for Bangladeshi students to take advantage of COMSATS' scholarship offers. The Executive Director extended invitation





to the High Commissioner to personally visit COMSATS University Islamabad (CUI), meet its leadership and witness firsthand the facilities at the University; to which he agreed.

During his visit to CUI, the High Commissioner received briefing on CUI's research and development activities, academic programs offered, scholarship opportunities for international students, and major achievements. He was also given a tour of the Nanotechnology Lab at the campus as well as its main Library.

The visit concluded on the note of enhancing cooperation of Bangladesh with COMSATS and its other Member States, in the fields of education, research, and technology, in order to

promote innovation and sustainable development.

### **COMSATS, IBI International Group of China and Pakistan's AGECO ink MoU on EV, Green Energy, Precision Agriculture, and Capacity Building/Training**

On 30th June 2025, a Tripartite landmark Memorandum of Understanding (MoU) has been signed between COMSATS, IBI International Group Co. Ltd., China, and COMSATS Technology Partner AGECO Pvt. Ltd.

The signatories agreed to collaborate in four critical areas: Electric Vehicle (EV), Green Energy, Precision Agriculture, Training & Capacity Building with

exchange of expertise and transfer of technology. These areas of cooperation are of vital importance in today's global context to address key challenges such as climate change, energy insecurity, food sustainability, and the need for technology-driven solutions. The agreement aligns with and advances the objectives of several UN Sustainable Development Goals, including SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), and SDG 13 (Climate Action).

The Dean of the Diplomatic Corps\_ Ambassador of Turkmenistan, along with Ambassadors of Jordan, Syria, Morocco, Yemen, Ethiopia, and Diplomats of Iran and Azerbaijan graced the occasion. Among the dignitaries were Chairman IPO Pakistan,





Ambassador Amil and IBI's Adviser Ambassador Moin ul Haque.

Executive Director COMSATS, Ambassador Dr. Nafees Zakaria, paid tribute to Prof. Abdus Salam for his vision of COMSATS. The Executive Director underlined COMSATS' commitment to translating scientific knowledge into practical solutions that address real-world challenges. Ambassador Zakaria commended the CEO of AGECO, Engr. Aslam Azad for his indigenously developed EV technology to tackle transport sector emissions. He took pride to mention establishment of Nano Tech Lab and Telehealth Clinics as technology solutions for the member states, as COMSATS achievements.

Mr. Ibrahim Munir, Chairman of IBI

International Group, highlighted the Group's multi-sectoral expertise, including energy, trade, health, EPC, defense, and smart technology. He especially mentioned IBI's flagship initiative, the Belt and Road Economic and Trade Centre (BRET), which serves as a strategic platform to enhance regional connectivity and promote economic cooperation among countries along the Belt and Road Initiative.

The areas of cooperation evinced great interest of the Ambassadors, and they praised various initiatives taken by the Executive Director COMSATS.

COMSATS is an intergovernmental organization founded in 1994, comprising 27 Member States and a network of 25 Centres of Excellence. Its Secretariat is hosted in Islamabad by the Government of Pakistan.

IBI International Group Co. Ltd., established in Suzhou, China in 2015, is a global enterprise operating in sectors such as trade, EPC, agriculture, energy, health, defense, and smart technology, with its flagship project BRET supporting regional integration. AGECO Pvt. Ltd., a leading innovator in Pakistan's green technology sector, is known for its solar-electric vehicles under the brand Economia, holding multiple patents and approvals from the national regulatory bodies.

## Digital Skills Training Program for Pakistani youth in Merged Areas

COMSATS is executing a digital skill training program for the domiciled youth of the Newly Merged Districts (NMDs) of Pakistan, under the Project "Merged Areas Digital Connect". The training services are being provided by COMSATS under an agreement with the Science & Technology and Information Technology Department, Government of Khyber Pakhtunkhwa, Pakistan, signed on 29th January 2024.

The initiative aims to train 7,250 Pakistani youth in the areas including Web Design and Development, Graphics Design, Mobile App Development, Business Intelligence, and e-Commerce, imparting them with the tools to thrive in the digital economy.

So far, 1,981 individuals have been trained in the areas of Web Design and Development, Graphics Design and e-Commerce.

In addition to the training, the project includes development of a Learning Management System (LMS)/Webportal.

HAZZA Institute of Technology, a Technology Partner and Collaborator of COMSATS (the Lead Partner) are together implementing the project.



## SOME ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

### RSS Preparing Young Leaders in the Electrotechnical Field

The Electrical Laboratories at the Royal Scientific Society (RSS) hosted young engineers in May as part of the "Preparing Young Leaders

commitment to supporting specialized vocational training and strengthening national partnerships that contribute to building the capacity of the next generation of engineers and enabling them to actively contribute to the development of Jordan's technical infrastructure.



in the Electrotechnical Field" workshop, organized by the National Electrotechnical Commission, the Jordan Standards and Metrology Organization, and RSS. This initiative supports RSS mission to empower national talent and strengthen their role in advancing the electrotechnical sector locally and globally. Participants gained hands-on experience and insights into the laboratories' role in testing electrical products in accordance with international standards. Through this workshop, RSS reaffirms its continued

### The Green Nexus: Piloting Circular Food and Energy Systems in Jordan

The Royal Scientific Society (RSS), in collaboration with the University of Sheffield hosted a dissemination workshop for the "Green Nexus" project funded by the Royal Academy of Engineering. The initiative focuses on transforming food waste into valuable resources, particularly using digestate from anaerobic digestion as a natural fertilizer.



The event gathered stakeholders from across sectors to discuss promising results, including the effective use of liquid organic fertilizer as a sustainable alternative to chemicals. A field visit to the RSS demonstration site showcased the operational system in action.

The workshop featured technical insights, experimental findings, and acknowledgment for the project team, highlighting RSS's role in advancing innovation in food security and sustainable energy.

### TÜBİTAK President Stresses Global Cooperation at GRC 13th Annual Meeting

TÜBİTAK President Prof. Dr. Orhan Aydin highlighted the power of international collaboration in science during the 13th Annual Meeting of the Global Research Council (GRC), co-hosted by TÜBİTAK, RDIA, and KACST in Riyadh. In his opening remarks, Prof. Aydin emphasized that solving global challenges—ranging from climate change and water scarcity to biodiversity loss—requires joint action by research funding organizations, scientists, and stakeholders worldwide.

The meeting focused on two key themes: "Working Together, Succeeding Together in Addressing Global Challenges" and "Research Management in the Age of AI." Prof. Dr. Aydin underscored the importance of responsible, ethical approaches to AI and its transformative impact on research funding and evaluation systems.

Chairing a thematic session, Prof. Aydin called for rethinking the human-environment relationship and fostering a sixth wave of innovation centered on clean energy and carbon reduction. He also stressed that research collaboration must go beyond design to include



co-implementation and shared dissemination.

The event brought together science leaders from across the Americas, Europe, Asia-Pacific, MENA, and Sub-Saharan Africa. Bilateral meetings were held with heads of major national research agencies, and a declaration promoting co-designed, collective solutions to global issues was unanimously adopted—affirming GRC’s role as a catalyst for impactful international research partnerships.

## TÜBİTAK Ignites Scientific Curiosity at TEKNOFEST TRNC 2025

TÜBİTAK played a central role in the first-ever TEKNOFEST held in the Turkish Republic of Northern Cyprus (TRNC), drawing thousands of young minds to science and technology. Across four vibrant days at the former Ercan Airport, TÜBİTAK engaged visitors through interactive exhibits, thematic tents, and hands-on workshops coordinated by its institutes BİLGEM, MAM, RUTE, SAGE, UME, and UZAY. Popular activities included virtual reality simulations and creative science tools like periscopes and kaleidoscopes.

The TÜBİTAK Social Innovation Competition Tent welcomed 86 finalist teams from Türkiye, TRNC, Azerbaijan, Pakistan, and Afghanistan, highlighting youth-driven solutions for social impact. Meanwhile, the “Beyond the Horizon” space exhibition showcased Türkiye’s national space missions and astronaut

training modules, featuring appearances by Türkiye’s first astronauts, Alper Gezeravcı and Tuva Cihangir Atasever.

President Recep Tayyip Erdoğan, visiting on the third day, praised the youth’s passion and emphasized TEKNOFEST as a shared vision for the future. High-level officials—including TRNC President Ersin Tatar and TÜBİTAK President Prof. Dr. Orhan Aydın—awarded winners and visited the TÜBİTAK stand.

With over 47,000 applicants from 22 countries and 132 participating institutions, TEKNOFEST TRNC 2025 marked a powerful celebration of science, innovation, and unity across borders.

## Türkiye Wins 5 Awards at 2025 Regeneron ISEF!

At the 75th Regeneron ISEF in Columbus, USA (May 10–16, 2025), Türkiye’s students earned 2 Grand Awards and 3 Special Awards. Ela Doruk Korkmaz and Reyhan Çifci each received both Grand and Special Prizes in biology and chemistry; İlhami Aslansoy received a Special Award in mathematics. The international fair



hosted 1,657 students from 62 countries. TÜBİTAK also granted its own Special Awards to five outstanding international projects.

## International Workshop on Climate Change Challenges and Sustainable Development in the Global South

From June 24 to 26, 2025, the Chinese Academy of Sciences (CAS) and the World Academy of Sciences (TWAS) jointly organized the International Workshop on “Climate Change Challenges and Sustainable Development in the Global South”, hosted by the CAS-TWAS Center of Excellence for Climate and Environment Sciences (ICCES), Institute of Atmospheric Physics, Chinese Academy of Sciences.

The workshop focused on the challenges that developing countries face in addressing climate change and



achieving sustainable development. Discussions centered around two main topics: climate change impacts and strategies for adaptation. TWAS Fellow, Professor Rohana Chandrajith from the University of Peradeniya, Sri Lanka, delivered a keynote speech on groundwater resources in small island developing countries under climate change. Dr. Max Paoli from TWAS secretariat also gave a keynote address on the role of science and education in advancing climate justice. Young scientists presented 26 academic presentations covering research on the effects of climate change in areas such as ecosystems, public health, agriculture, and water resources. These studies focused on different regions of the Global South, including Africa, Asia, and Latin America.

The workshop was attended by 58 participants, including 20 TWAS Young Affiliates and one TWAS Fellow. A total of 35 international participants came

from 23 countries such as Sri Lanka, Malaysia, Myanmar, Nepal, Benin, Oman, Indonesia, Thailand, Bangladesh, Burkina Faso, Madagascar. Chinese participants included representatives from CAS, Peking University, North China Electric Power University, and CAS-TWAS Excellence Centers.

The workshop invited Dr. Sri Fatmawati from Institut Teknologi Sepuluh Nopember, one of the COMSATS Centers of Excellence in Indonesia, and Dr. Saeed A. Asad from the COMSATS University Islamabad (CUI). Dr. Sri Fatmawati presented a report titled "Sustainable Science: Advancing Climate Solutions through Natural Product Chemistry" exploring how natural product chemistry can contribute to sustainable climate solutions. Dr. Saeed A. Asad discussed "Climate Change Challenges in the Himalayan Highlands: Exploring Farmers' Perceptions and the Role of Climate-Smart Agriculture for

Sustainable Development in the HKH Region" highlighting farmers' perspectives and the potential of climate-smart agriculture. Their participation not only enriched the workshop but also effectively promoted COMSATS University and the COMSATS Centers of Excellence, enhancing their visibility and fostering stronger ties with ICCES.

### CUI-Pakistan Hosts Awareness Session on UK Higher Education Opportunities

The International Office of COMSATS University Islamabad (CUI), in collaboration with the British Council, organized a comprehensive awareness session titled "Study and Scholarship Opportunities in the UK" at Islamabad Campus. Held on May 2, 2025, the session welcomed final-semester students from disciplines including Computer Science, Physics, Engineering, and Management Sciences, with additional participants joining virtually from all seven CUI campuses as well as from international student cohorts.

Mr. Haroon Rashid, Manager of Higher Education Mobility at the British Council and a distinguished alumnus of CUI and the University of Nottingham, delivered the keynote address. He offered an engaging overview of the United Kingdom's diverse academic landscape, post-study work opportunities under the Graduate Route, tuition costs, and scholarship avenues—including Chevening, Commonwealth, and GREAT scholarships—along with guidance on the streamlined application and visa processes. Notably, he informed students about the IELTS waiver available for CUI students through a medium of instruction letter.

The event concluded with a vote of thanks by Mr. Arif Awan, Senior Program Officer, at the International Office.



He expressed gratitude to the British Council and Mr. Rashid for their valuable insights. He also acknowledged the support of the Head International Office, Dr. Hammad Omer (T.I.) and the efforts of the organizing team.

### Fast Track to France: CCI Paris Webinar Opens Doors for CUI Students

The International Office of COMSATS University Islamabad (CUI), in collaboration with the Paris Chamber of Commerce and Industry and the French Embassy in Islamabad, successfully hosted a webinar titled "Join a School in France" to highlight higher education opportunities in France's top business schools. The event was held on May 6, 2025.

Over 130 undergraduate students from the Department of Management Sciences participated, reflecting strong interest in international academic pathways. Key speakers included Ms. Perlette Kabeya, Director of International Projects at the Paris Chamber of Commerce and Industry, and Ms. Wardah Kayani, Campus France Officer at the French Embassy in Islamabad. They provided detailed guidance on applying to five leading French business schools through a single, streamlined process.

An engaging Q&A session, led by

Mr. Rao Naufil from Campus France, Islamabad, concluded the event, answering students' queries on admissions, scholarships, and career prospects.

### Malaysian Deputy Head of Mission Visits CUI to Discuss Bilateral Relations and Scholarship Opportunities

COMSATS University Islamabad (CUI) hosted the Deputy Head of Mission of Malaysia, Mr. Mohd Syafik Firdaus Bin Hasbullah, for a special talk on Malaysia-Pakistan relations and Malaysian scholarship opportunities, held on May 14, 2025.

Addressing students and faculty, Mr. Hasbullah highlighted Malaysia's vision of good governance, its active role in the Association of Southeast Asian Nations (ASEAN), and the long-standing diplomatic ties with Pakistan since 1957. He discussed bilateral trade, Pakistan's potential as a Halal hub, and educational opportunities such as the Malaysian Technical Cooperation Programme (MTCP) scholarships.

Dr. Hammad Omer, Head of the International Office, spoke about CUI's longstanding ties with Malaysian institutions, including existing MoUs and over 100 Malaysian alumni. He emphasized opportunities for further

collaboration, especially with leading Malaysian universities.

The visit concluded with an engaging session with Malaysian alumni, and a meeting between Incharge Campus Prof. Dr. Sohail Asghar and Mr. Hasbullah, where they explored avenues for PhD placements, research cooperation, student exchange programs, and the possibility of a CUI campus in Malaysia.

### Bangladesh High Commissioner Visits COMSATS University Islamabad to Strengthen Academic Ties

On June 23, 2025, High Commissioner of Bangladesh to Pakistan, Mr. Md. Iqbal Hussain Khan, paid an official visit to COMSATS University Islamabad (CUI) to explore enhanced academic and scientific collaboration. He was accompanied by Mr. Md. Tayub Ali, Press Counsellor, and Mr. Farhan Ansari, Deputy Director, COMSATS Secretariat.

The delegation was welcomed by Prof. Dr. Sajid Qamar, Rector of CUI, and other senior officials. During the visit, the High Commissioner toured major university facilities, including the Junaid Zaidi Library and the Centre of Micro and Nano Devices (CMND).

In a meeting with CUI leadership, Mr.

Khan emphasized the importance of academic cooperation between Pakistan and Bangladesh, particularly in Nanotechnology and Information Technology. He also appreciated CUI's internationalization efforts and its scholarships for students from OIC countries, especially Bangladesh.

Prof. Dr. Sajid Qamar highlighted recent MoUs signed with Bangladeshi institutions under COMSTECH's patronage and reiterated CUI's commitment for student and faculty exchanges. The visit concluded with a commitment to advancing bilateral academic linkages.



### MoU Signed between ICCBS and Sindh Government to Control Livestock Diseases

The Government of Sindh and the International Centre for Chemical and Biological Sciences (ICCBS), have joined hands to enhance cooperation in the surveillance and control of livestock diseases and zoonotic infections under the "One Health" concept.

This collaboration was formalized through the signing of a Memorandum of Understanding (MoU) between the ICCBS and the Sindh Institute of Animal Health (SIAH), Karachi, Pakistan, during a meeting held at ICCBS.

The event was attended by renowned scientist Prof. Dr. Atta-ur-Rahman, Professor Emeritus and former Federal Minister for Science and Technology; Senior Advisor Prof. Dr. Shahid Mansoor; and other key officials.

The MoU focuses on genome sequencing of major disease-causing pathogens, including the Foot and Mouth Disease Virus—a high-priority area. It also includes vaccine matching studies to evaluate the efficacy of current vaccines. Both institutions agreed to collaborate on the

development of modern vaccines based on Virus-Like Particles (VLP) technology for more effective disease control.

Prof. Dr. Muhammad Raza Shah, Director of ICCBS, and Dr. Nazeer Hussain Kalhoro, Director General of SIAH, signed the MoU on behalf of their respective organizations.

Speaking at the occasion, Prof. Raza Shah highlighted ICCBS's capability to assist SIAH in developing AI-based dashboards for real-time disease surveillance and outbreak reporting. He also noted that ICCBS has the facilities to conduct clinical trials for products like snake antivenom and rabies vaccines, underscoring the center's reputation as a leading institution for chemical and biological research in the developing world.

Dr. Nazeer Hussain Kalhoro stated that SIAH operates under the Department of Livestock and Fisheries, Government of Sindh, and is actively involved in the production of vaccines for animal disease control. He noted that SIAH is a nationally recognized body working to enhance vaccine research, manage emerging infectious diseases, and produce vaccines, sera, and biologics for animal and public health.

### ICCBS Launches Annual BS/ MSc Thesis Support Program

A total of 174 BS and MSc students from 17 different Universities across the country have been inducted into the annual BS/MSc Thesis Support Program at the International Center for Chemical and Biological Sciences (ICCBS), University of Karachi.

The thesis support program, aims to provide scholars with comprehensive support during their thesis journey. The inaugural ceremony was held at the UNESCO Chair on Medicinal and Bioorganic Natural Product Chemistry at ICCBS, University of Karachi.

Speaking at the occasion, Prof. Dr. Muhammad Raza Shah, Director of the ICCBS, and UNESCO Chair Holder, congratulated the inducted students. He emphasized that the program's primary goal is to enhance the student experience, promote research brilliance, and lay the foundation for future advanced research programs.

He added that the selected students will be provided with world-class laboratories and research infrastructure at the international center.

Calling youth, the real wealth of the country, Prof. Shah stressed the vital role of science and technology in national development, noting that the world's leading institutions and scientists emerged through strong academic foundations. He further highlighted that Pakistani youth have great potential to change the fate of the country. He said that ICCBS is a premier institution with world-class facilities and scholars.

Prof. Dr. Syed Ghulam Musharraf noted that the program will allow scholars to work under top mentors and publish their research in prestigious journals. The support program, spanning six to twelve months, covers a broad range of scientific fields, including Organic, Analytical, Physical, Inorganic, and Applied Chemistry; Textile Chemistry; Biochemistry; Biotechnology; Physiology; Microbiology; Genetics; Pharmacology; and Artificial Intelligence in Health Sciences.

Dr. Reaz Ud Din, Coordinator of the UNESCO Chair, highlighted its role in promoting collaborative research both locally and internationally since its establishment in 2019.

### ICCBS Professor Honored by Royal Society of Biology

Dr. Syed Ghulam Musharraf, a distinguished professor at the International Center for Chemical and Biological Sciences (ICCBS), has been elected as a Fellow of the Royal Society of Biology (FRSB), United Kingdom, in recognition of his outstanding contributions to the field of Biological Mass Spectrometry.

Prof. Musharraf is the first scientist from the University of Karachi to receive this prestigious fellowship. Prof. Dr. Muhammad Raza Shah, Director of ICCBS, congratulated Prof. Musharraf on this remarkable achievement, noting that it represents a significant



milestone for both the professor and the institution.

The Fellowship of the Royal Society of Biology is a highly esteemed honor awarded to individuals with influential experience in senior roles within the biological sciences and who have made a distinguished and notable impact in advancing the field. The fellowship signifies peer recognition of scientific excellence, leadership, and outstanding contributions to the discipline.

### ICCBS Hosts Workshop on Artificial Intelligence in Health Sciences

The International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, hosted a two-day hybrid workshop titled "Artificial Intelligence (AI) in Health Sciences", jointly organized by the Center for AI in Health Sciences at the Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), OIC-COMSTECH, and the Sindh Innovation, Research, and Education Network (SIREN). The event was held at the Latif Ebrahim Jamal (LEJ) National Information Center, ICCBS.

The inaugural session was addressed

by Sindh Health Secretary Mr. Rehan Iqbal Baloch, Prof. Dr. Atta-ur Rahman, Professor Emeritus and former Federal Minister for Science and Technology; Prof. Dr. Muhammad Raza Shah, Director of the ICCBS; Prof. Dr. M. Iqbal Choudhary, Coordinator General, OIC-COMSTECH; and Dr. Reaz Uddin, workshop coordinator.

Speaking at the inaugural session, Prof. Dr. Raza Shah highlighted the transformative potential of AI in healthcare, noting its capacity to revolutionize patient care, enhance operational efficiency, and reduce healthcare costs. He also praised ICCBS as a world-class research institution, stating that its scholars are contributing significantly both nationally and internationally. He commended the organizers for holding a workshop on such a timely and important topic.

Later in the session, distinguished academics and professionals from across the globe shared their insights. Notable speakers included Prof. Arif Mashkooor from Johannes Kepler University, Austria; Dr. Murtaza Najabat Ali (USA); Dr. Yasar Ayaz from NUST; Prof. Dr. Rabie A. Ramadan (Oman); and Dr. Sadiq Ali Khan from UBIT, University of Karachi, among others.

## GLIMPSES OF SOME EVENTS/ACTIVITIES



## GLIMPSES OF SOME EVENTS/ACTIVITIES



## Scholarships offered by COMSATS University Islamabad (CUI), Pakistan

COMSATS University Islamabad (CUI), Pakistan, offers MS & PhD Scholarships for students and researchers belonging to COMSATS' Member States and partner countries. The scholarships are offered in the following key programs: Computer Science, Management Science, Electrical Engineering, Biosciences, Mathematics, Physics, and Meteorology.

The relevant details, including terms and conditions, eligibility criteria, admission procedure and schedule, application form, etc.

Eligibility Criteria for MS Programs (Subject-wise): <https://international.admissions.comsats.edu.pk/Home/EligibilityCriteria?pt=MS>

Eligibility Criteria for PhD Programs (Subject-wise): <https://international.admissions.comsats.edu.pk/Home/EligibilityCriteria?pt=PHD>

Online Application:  
<https://comsats.org/scholarship-application-form/>

For further details, please visit: [www.comsats.org](http://www.comsats.org) or write to: [farhan@comsats.org](mailto:farhan@comsats.org).

## Call for Participation in ANSO-COMSATS Conference

COMSATS is organizing the ANSO-COMSATS Conference on "Artificial Intelligence Enabled Solutions for Sustainable Water Governance, Security and Safety", on 21–24 April 2026, in Islamabad, Pakistan.

The Conference is funded by the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) under the CAS-ANSO Conference Program, and is being held in collaboration with Xinjiang Institute of Geography and Ecology (XIEG), China; COMSATS University Islamabad (CUI), Pakistan; and National Research Centre (NRC), Egypt.

For further details and updates, please visit the following web-page: <https://comsats.org/anso-comsats-conference-ai4water-2026/>

## COMSATS Network of Centres of Excellence



BCSIR-Bangladesh  
[www.bcsir.gov.bd](http://www.bcsir.gov.bd)



Embrapa Agrobiologia-Brazil  
[embrapa.br/agrobiologia](http://embrapa.br/agrobiologia)



ICCES-China  
[english.icces.ac.cn](http://english.icces.ac.cn)



TIB-China  
[english.tib.cas.cn](http://english.tib.cas.cn)



CIF-Colombia  
[www.cif.org.co](http://www.cif.org.co)



NRC-Egypt  
[www.nrc.sci.eg](http://www.nrc.sci.eg)



UTG-The Gambia  
[www.utg.edu.gm](http://www.utg.edu.gm)



CSIR-Ghana  
[www.csir.org.gh](http://www.csir.org.gh)



ITS-Indonesia  
[www.its.ac.id](http://www.its.ac.id)



IROST-Iran  
[www.irost.org](http://www.irost.org)



ICENS-Jamaica  
[www.icens.org](http://www.icens.org)



KazNU-Kazakhstan  
[www.kaznu.kz/en/](http://www.kaznu.kz/en/)



RSS-Jordan  
[www.rss.jo](http://www.rss.jo)



ICCBS-Pakistan  
[www.iccs.edu](http://www.iccs.edu)



NMC-Nigeria  
[www.nmc.edu.org](http://www.nmc.edu.org)



CUI-Pakistan  
[www.comsats.edu.pk](http://www.comsats.edu.pk)



AQU-Palestine  
[www.alquds.edu](http://www.alquds.edu)



UCAD-Senegal  
[www.ucad.sn](http://www.ucad.sn)



UGR-Spain  
[www.ugr.university](http://www.ugr.university)



ITI-Sri Lanka  
[www.iti.lk/en](http://www.iti.lk/en)



IRCC-Sudan  
[www.ircc.gov.sd](http://www.ircc.gov.sd)



HIAS-T-Syria  
[www.hiast.edu.sy](http://www.hiast.edu.sy)



TIRDO-Tanzania  
[www.tirdo.or.tz](http://www.tirdo.or.tz)



CERT-Tunisia  
[www.certe.rnrt.tn](http://www.certe.rnrt.tn)



TUBITAK-Turkiye  
[www.tubitak.gov.tr](http://www.tubitak.gov.tr)



Contributions from readers are welcome on any matter relevant to the mission of COMSATS, namely the promotion of South-South cooperation in science and technology for sustainable progress of the developing countries. The same could be provided via [newsletter@comsats.org](mailto:newsletter@comsats.org). The responsibility for the accuracy of any information rests with the original source. Views expressed in this publication do not necessarily reflect those of its editors, publisher or COMSATS.