



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

# ANNUAL REPORT 2025



HRH Princess Sumaya  
President RSS, Jordan



Chairperson of COMSATS  
President of Ghana



CCM



ANSO Meeting



TAC Meeting



EV Launch



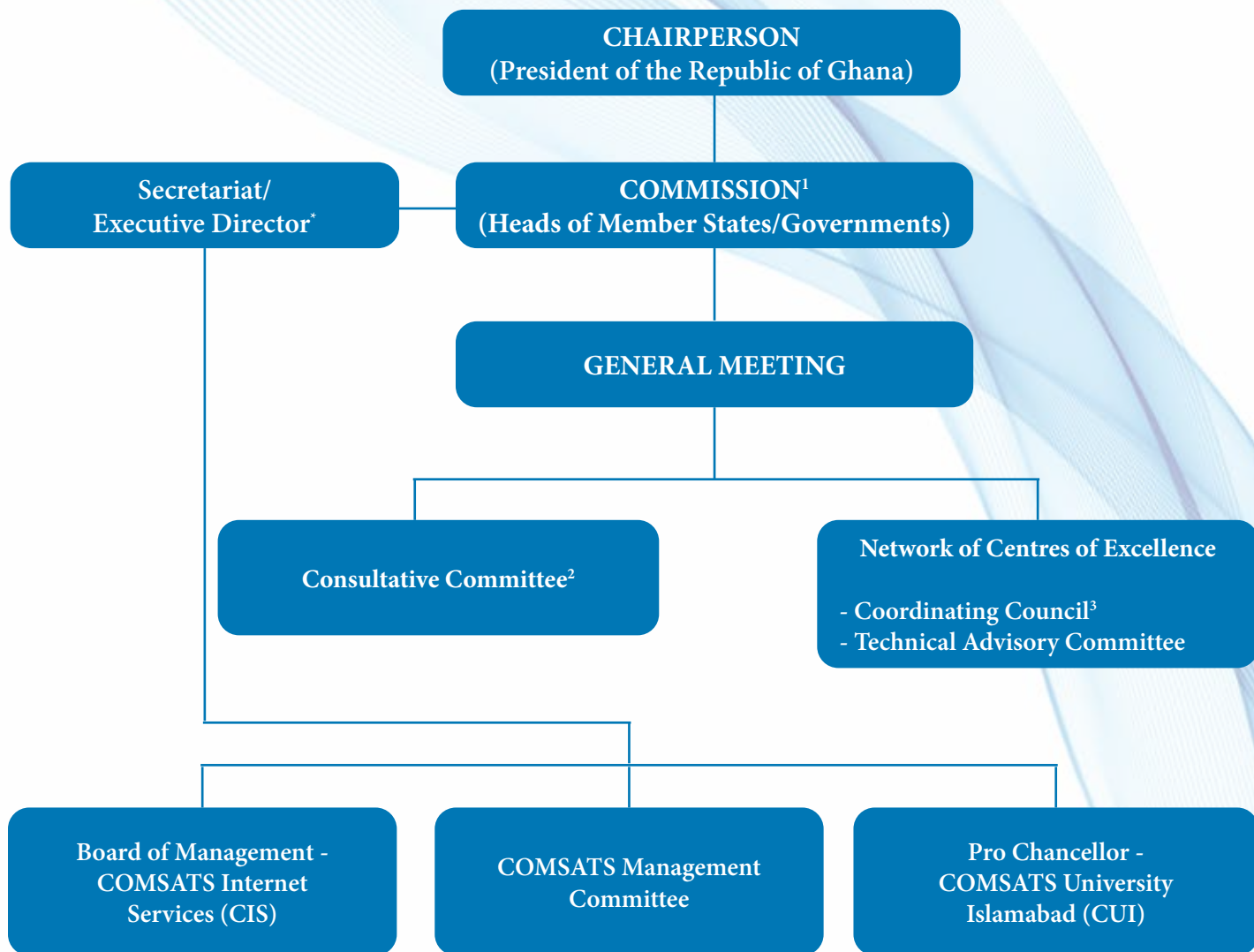
# ANNUAL REPORT 2025

June 2026



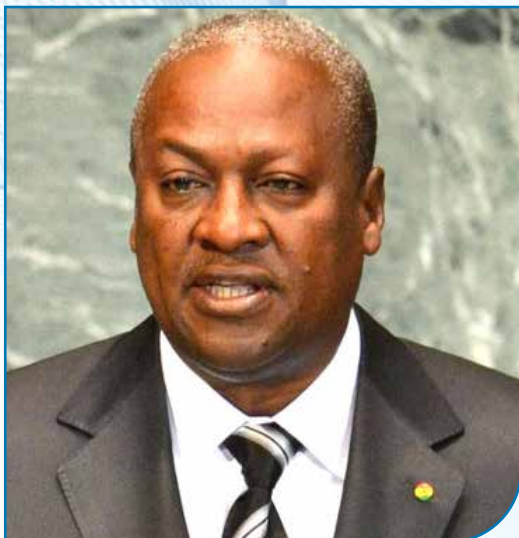
Commission on Science and Technology for  
Sustainable Development in the South  
(COMSATS)

# ORGANIZATIONAL STRUCTURE



\* Also ex-officio Secretary to 1, 2 and 3





**Hon. John Dramani Mahama**

**President of the Republic of Ghana**  
**Chairperson COMSATS**

The President of Ghana, Hon. John Dramani Mahama, is the incumbent Chairperson of COMSATS.

Hon. John Dramani Mahama is the sixth President of the Fourth Republic of Ghana. He was also the fourth President of the Fourth Republic of Ghana, having previously occupied the high office of President between January 7, 2013 and January 6, 2017.

Born 66 years ago to Mr E. A. Mahama and Madam Abiba Nnaba in Damongo, in the now Savannah Region of Ghana, Mahama made history as Ghana's first President to serve at all political levels. He was a Member of Parliament for Bole-Bamboi Constituency, Deputy Minister for Communications, Minister for Communications, Vice President of the Republic of Ghana, and President of the Republic of Ghana.

Mahama considers the combination of history, communications, and social psychology—courses he studied for his undergraduate and postgraduate degrees—to have profoundly shaped his views, thoughts, and understanding of the human condition and contributed significantly to his development as a person.

Under President Mahama's first administration, Ghana witnessed massive infrastructure development across all sectors of the economy, including education, health, ports and harbours, aviation, rail, oil and gas, ICT, and many more. His vision and strategic investments in these areas solidly positioned the country as a Lower-Middle-Income Country for its next development phase.

Beyond investments in socio-economic infrastructure, President Mahama is passionate about investing in people. This amply reflects his commitment to social justice and equity, particularly through his lauded efforts to advance the interests of girls and women across all spheres. Notably, Ghana attained gender parity in basic education under his leadership.

John Mahama further demonstrated his commitment to women's empowerment by appointing several women to prominent roles in his administration. In 2020, he made a groundbreaking decision to nominate Professor Naana Jane Opoku-Agyemang as his Vice-presidential candidate,

marking a first for a major political party in Ghana. He repeated this bold choice in 2024, and with their victory, Ghana is welcoming its first female Vice President.

Mahama is an avid reader, author, and historian. Over the course of his career, he has written for several newspapers and authored several publications. He has also published a memoir, his first book, titled 'My First Coup d'État and Other True Stories from the Lost Decades of Africa.'

President Mahama's love for reading and thirst for knowledge are complemented by his strong interest in technology and agriculture. His connection to agriculture is personal, longstanding, and rooted in his upbringing. His father was a prominent rice farmer, educator, and Minister in Dr Kwame Nkrumah's administration.

President Mahama is keen on increasing agricultural productivity and strives to motivate the younger generation to approach farming as a viable and profitable business, particularly by leveraging technology and value addition to maximize its potential.

President Mahama is a former Chairperson of the Economic Community of West Africa States (ECOWAS) Commission. A strong proponent of intra-African trade, he is a former Chairperson of the African Union's High-Level African Trade Committee. He played an instrumental role in laying the foundation for the Africa Continental Free Trade Area (AfCFTA), whose secretariat is now in Ghana.

President Mahama was also the first Co-chair of the United Nations Advocacy Group on the Sustainable Development Goals and is the current Chair of the TANA Forum, a high-level forum on security in Africa headquartered in Ethiopia.

In recognition of his sterling contributions as a leader and role model on the African continent and around the globe, John Mahama has been conferred with several honorary doctoral degrees from distinguished universities worldwide, including Ekiti State University, Ilorin University, and Igbinedion University in Nigeria; the University of Aberdeen in Scotland; and the Lyon Business School in France.

With his resounding victory in the December 2024 elections, John Dramani Mahama becomes the first president in Ghana's history to be democratically elected to a non-consecutive second term.

President Mahama is an exemplary family man with strong Christian values. He has been happily married to Lordina Dramani Mahama for over thirty-two years.

Source: <https://presidency.gov.gh/biography/>

# Table of Contents

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| About COMSATS                                                   | i   |
| Foreword                                                        | iii |
| From the Chairperson Coordinating Council                       | v   |
| 1. CORE ACTIVITIES OF COMSATS SECRETARIAT                       | 01  |
| 2. STRENGTHENING SOUTH-SOUTH AND TRIANGULAR COOPERATION         | 15  |
| 3. COLLABORATIONS WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS | 23  |
| 4. CAPACITY-BUILDING AND INTERNATIONAL EVENTS                   | 43  |
| 5. PARTICIPATION IN IMPORTANT FORA AND MEETINGS                 | 65  |
| 6. SPECIAL ASSIGNMENTS                                          | 75  |
| 7. ACTIVITIES OF COMSATS CENTRES OF EXCELLENCE                  | 91  |
| 8. FINANCIAL AFFAIRS                                            | 113 |





## Acknowledgement

*The Editorial Team of the COMSATS Annual Report gratefully acknowledges the contributions of officials from the COMSATS Secretariat, COMSATS Internet Services, and the COMSATS Centres of Excellence, whose cooperation and valuable input greatly contributed to the successful preparation of this report..*



### Chief Editor

Amb. Dr. Mohammad Nafees Zakaria  
Executive Director COMSATS



**Compiled, Designed and Developed by**  
Mr. Imran Chaudhry



## ABOUT COMSATS

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) was established in October 1994 as an international/ inter-governmental organization to act as a global forum of developing countries for their sustainable socio-economic uplift through applications of science and technology. The legendary person behind the idea of COMSATS was a renowned Pakistani Physicist, Scientist and Nobel Laureate, Prof. Dr. Abdus Salam. COMSATS' current membership comprises of 27 countries located in the continents of Africa, Asia, Latin America (and Eurasia), representing a population of over one-third of the world's total.



Nobel Laureate  
**Prof. Dr. Abdus Salam**  
The Founder of COMSATS

These countries have diverse social, cultural, economic, political, educational and religious backgrounds, and also differ greatly in their scientific and technological capacities. Their common aspirations for development through cooperation in S&T brought them together on the platform of COMSATS. COMSATS' major source of scientific and technological strength stems from its network of international S&T Centres of Excellence, which comprises of 25 reputed R&D and S&T, and higher education institutes in developing countries, predominantly COMSATS Member States.

As stipulated in the organization's statutes, COMSATS Secretariat is permanently located in Islamabad, Pakistan, with its operation and expenditures supported through generous grants from the Government of Pakistan. The membership of COMSATS is open to all developing countries. The organization also aspires to further broaden its horizons to all countries and institutions, including those from the North.

### MISSION

The mission of COMSATS is to 'help create a world where all nations/states are at peace with one another and capable of providing a good quality of life to their populations in a sustainable way, using modern scientific and technological means'.

### OBJECTIVES

Major objectives and functions of COMSATS are:

- To sensitize the countries in the South to the centrality of science and technology in the development process, to the adequate resource allocation for research and development, and to the integration of science and technology in the national and regional development plans;
- To support the functioning and activities of the Network of International Science and Technology

Centres for Sustainable Development in the South, established at the foundation meeting of the Commission;

- To support other major initiatives designed to promote indigenous capacity in science and technology for science-led sustainable development, and to help mobilise long-term financial support from international donor agencies and from government/institutions in the North and the South to supplement the financing of international scientific projects in the South;
- To provide leadership and support for North-South and South-South cooperative schemes in education, training and research, such as the proposal to set up programmes of scholarships for research at centres of excellence in the South; and
- To support the relevant programmes and initiatives of major scientific organisations working for the development and promotion of science and technology in the South.





## **Ambassador Dr. Mohammad Nafees Zakaria**

**Executive Director COMSATS**

Ambassador Dr. Mohammad Nafees Zakaria assumed charge as the Executive Director COMSATS in November 2022. By virtue of his position, he is also the ex-officio Secretary to COMSATS' statutory bodies, the Commission, the Consultative Committee and the Coordinating Council. Moreover, he is ex-officio Pro Chancellor-II of COMSATS University Islamabad (CUI), and Chairman Board of Management of COMSATS Internet Services (CIS). During his illustrious diplomatic career of over 30 years, he, inter alia, represented Pakistan as High Commissioner to the UK (2019-20), and Malaysia (2017-19). At the Ministry of Foreign Affairs in Islamabad, he held important senior positions, including Additional Foreign Secretary / Spokesperson, Director General for South Asia and SAARC, and Director General for Europe. Amb. Zakaria was awarded honorary degree of Doctorate in Arts & Letters by Forman Christian College, a Chartered University, in recognition of his services to the country and the people irrespective of their religious affinity.

## **FOREWORD**

The Annual Report 2025 of COMSATS presents a comprehensive account of the Organization's activities, programmes, partnerships, and institutional engagements undertaken during the year under review. It is intended to keep Member States, Centres of Excellence, partner institutions, and the wider public informed of COMSATS' continuing efforts to advance science, technology and innovation as instruments of sustainable development across the Global South.

The year under review was marked by renewed institutional momentum, expanded diplomatic outreach, and a sharper programmatic focus. At a time when developing countries continue to confront climate vulnerability, food and water insecurity, uneven access to advanced technologies, widening digital divides, and constraints in research commercialization, COMSATS continued to serve as a platform for practical South-South and triangular cooperation, with its work anchored in the founding vision of Prof. Dr. Abdus Salam: narrowing the knowledge and technology gap between developed and developing countries through inclusive access to scientific capability, research collaboration, and capacity-building.

The Executive Director paid an official visit to the Republic of Ghana in September 2025, for an audience with the Chairperson of COMSATS, His Excellency John Dramani Mahama, President of Ghana. The primary focus was on holding the Commission's meeting at the Summit level, enabling policy decisions that would chart a way to progress for COMSATS. Availing the opportunity, he briefed the Chairperson on the milestones achieved by COMSATS Secretariat, including establishment of an ISO-certified Nanotechnology Lab, development of an indigenous electric vehicle technology with patents by COMSATS' Technology

Partner, the launch of cloud computing services, and the expansion of the telehealth ecosystem to underserved communities.

Fourth Summit-level Session of the Commission, scheduled for 2026, for which the Chairperson assured his full support. The Executive Director also held subsequent meetings with Ghana's Ministry of Environment, Science and Technology (MEST) and the Council for Scientific and Industrial Research (CSIR). They discussed cooperation in digital skills, and climate-smart agriculture, marking an important step towards preparing ground for the Fourth COMSATS Summit in Accra.

The Executive Director's official visit to the Hashemite Kingdom of Jordan in October 2025, where Her Royal Highness Princess Sumaya bint El Hassan, President of the Royal Scientific Society (RSS), graciously hosted COMSATS, ICESCO, members of the Technical Advisory Committee, and the Princess Sumaya University for Technology (PSUT), commending COMSATS' leadership in science diplomacy and reaffirming sustained institutional support for its initiatives. The visit coincided with the Third Meeting of the COMSATS Technical Advisory Committee in Amman. Deliberations were focused on developing Strategy 2026-2030. COMSATS Research and Development Fund, commercialization pathways, thematic cluster coordination, and artificial intelligence governance, were discussed as essential elements of the five-year strategy. It was agreed that given the significance of TAC, it should meet annually rather than occasionally.

COMSATS also deepened its cooperation with leading international scientific organizations. At the ANSO General Conference on Science and Innovation for a Sustainable



Future in Beijing, the Executive Director participated as a panelist on Open Science and Open Innovation, and held a series of consequential meetings with the leadership of ANSO, the Chinese Academy of Sciences, TWAS, the National Research Centre of Egypt, and other partner institutions to discuss emerging technologies, youth skills development, and technology transfer. COMSATS' re-election to the ANSO Governing Board and the renewal of its MoU with CEE-UCAS together reflected growing institutional confidence in COMSATS' role. The Organization's long-standing partnership with The World Academy of Sciences was similarly reinforced through consultations between the Executive Director and the Executive Director of TWAS, Professor Marcelo Knobel, and through joint participation in TWAS' 17th General Conference and 40th Anniversary in Rio de Janeiro, where tribute was paid to the shared legacy of Prof. Abdus Salam. Closer to home, the partnership with the Economic Cooperation Organization Science Foundation culminated in the International Conference on Science, Technology and Innovation, held in Islamabad in April 2025, where the Executive Director joined federal ministers and eminent scholars from across the ECO region.

The Secretariat's contribution to national and regional resilience was underscored when the Executive Director chaired a thematic session on artificial intelligence-powered early warning systems at the second Pakistan Expo on Disaster Risk Reduction, convened jointly with the National Disaster Management Authority. This engagement, together with new partnerships forged with the National Institute of Maritime Affairs, the American Institute of Pakistan Studies, Welthungerhilfe, and the China-Pakistan Joint Research Centre on Earth Sciences, reflected COMSATS' conviction that resilience, food security and maritime cooperation are inseparable from the broader agenda of sustainable development.

Climate action remained central to COMSATS' work through the COMSATS Centre for Climate and Sustainability, which led the Organization's participation at COP30 in Belém, Brazil, contributing to global dialogue on climate resilience, adaptation and net-zero pathways, and co-organizing an official UNFCCC side event with ICESCO and the Union for the Mediterranean. The Plantation Drive, held at the invitation of the Executive Director, brought together the Ambassadors of Member States and other partner countries in Islamabad in a shared symbol of peace and commitment to a greener planet, was another manifestation of COMSATS commitment on the environmental front.

Capacity-building remained the practical expression of COMSATS' mandate throughout the year. Activities spanned cybersecurity, renewable and clean energy technologies, artificial intelligence, quantum science, digital health, university-business and R&D-SME collaboration, modern imaging applications, and climate adaptation, bringing together policymakers, scientists, researchers and youth from across Member States and partner countries.

The Report reflects a year of institutional consolidation, expanded outreach, and forward momentum. COMSATS appreciates the Chairperson of COMSATS, the Chairpersons of the Consultative Committee and Coordinating Council, Member States, focal ministries, Centres of Excellence, members of the Technical Advisory Committee, partner organizations, and the dedicated team at the COMSATS Secretariat, for their contribution and continued cooperation and trust towards sustaining COMSATS as a credible platform for science diplomacy and sustainable development. As COMSATS prepares for the significant upcoming event, it remains committed to mobilizing science, technology and innovation for a more resilient, equitable, and sustainable future for its Member States, in particular, and the Global South in general.



**Prof. Dr. Ashraf Shaalan**  
Chairperson of COMSATS Coordinating Council

Prof. Ashraf Shaalan was elected as the Chairperson of COMSATS Coordinating Council during its 19th Meeting held in May 2016, in Islamabad, Pakistan, when he was the President of COMSATS Centre of Excellence in Egypt, National Research Centre (NRC). During the Council's 22nd Meeting (2019), Prof. Shaalan was given honorary lifetime membership to the Council. In January 2023 Council Meeting (24th), he was appointed the Chairperson of the Council with unanimous approval. A widely published academician, Prof. Shaalan is member of the Egypt's Presidential Specialized Council for Education and Scientific Research of Egypt and has previously served as the Vice-President of the Academy of Scientific Research and Technology apart from numerous other distinguished appointments and awards.

## FROM THE CHAIRPERSON COMSATS COORDINATING COUNCIL

It is my pleasure to welcome the readers of the COMSATS Annual Report for the year 2025. This report reflects another important milestone in the continuing journey of COMSATS as a platform for scientific cooperation, knowledge-sharing, and collective advancement among its members. As Chairperson of the Coordinating Council, I am pleased to extend my greetings and appreciation to all stakeholders, and to acknowledge the Organization's continued engagement and contributions in the fields of science, technology, innovation, education, and sustainable development.

I would also like to express my sincere appreciation to Institut Teknologi Sepuluh Nopember (ITS), Indonesia, for hosting the 26th Meeting of the COMSATS Coordinating Council. I am confident that this meeting will be both productive and meaningful, providing a valuable opportunity for strengthening cooperation and engagement among member institutions and stakeholders.

As this marks my final term as Chairperson of the Coordinating Council, I look back upon my association with COMSATS with pride and gratitude. It would be amiss on my part if I do not pay tribute to the Nobel Laureate, Prof. Dr. Abdus Salam, for his vision that founded COMSATS in 1994. It has been a distinct honour to serve this Organization, which continues to demonstrate the importance of practical and result-oriented cooperation in science and technology among developing countries. Throughout my tenure, I have been particularly encouraged by the growing number of activities, workshops, training programmes, collaborative initiatives, and knowledge-sharing opportunities taking place across the COMSATS fraternity.

The vast potential of the COMSATS Network of Centres of Excellence remains one of the Organization's greatest strengths. However, this potential is still not fully realized. The platform offers significant opportunities for collaborative research, technology-sharing, innovation, and capacity-building that can benefit member states collectively rather than through isolated efforts.

I am pleased to note the significant improvements achieved in the administrative, managerial, and financial aspects of the COMSATS Internet Services (CIS), which is a flagship project of COMSATS. It is especially encouraging to witness this flagship initiative transition from a challenging financial position, marked by substantial liabilities, to a phase of revival, stability, sustainability, and growing profitability and the credit goes to the incumbent Executive Director, Ambassador Zakaria, for his vision and professional strategy. Equally encouraging has been the emergence of new ideas and approaches introduced envisioned by him which laid greater emphasis on research and development, revenue-generation initiatives, enhanced international engagement, and efforts to create wider awareness about the products and capabilities of COMSATS Centres of Excellence.

The agreements signed, projects secured, and meaningful participation in COP-related engagements during this period clearly reflect the positive trajectory of the Organization. I believe these efforts are closely aligned with the founding vision and objectives that led to the establishment of COMSATS as a platform dedicated to applying science and technology to address common developmental challenges. At the same time, I wish to emphasize that no organization can remain effective without the continued support and financial contributions of its member states. This becomes even more critical in



the rapidly evolving field of science and technology, where emerging technologies continue to shape economies and further widen existing disparities between developing and developed countries.

I, therefore, urge fellow scientists, Heads of Centres of Excellence, and member institutions to further strengthen collaboration under the COMSATS platform. Our strength lies in collective effort, shared expertise, and coordinated action.

I am very happy to see the new trend and approach adopted by the COMSATS Secretariat, particularly in revenue-generation activities and, importantly, in securing sponsorships from international organizations for scientific activities conceived and organized by COMSATS.

Meetings of the Consultative Committee and Summit Level General Meeting of the Commission must be held at the

earliest possible for important decision making required in the fast changing technology driven world. In this context, the initiatives taken by the Executive Director are appreciated, however, the role of the host country for the Consultative Committee meeting and the current Chair of the Commission, the Republic of Ghana, would be crucial.

In concluding, I extend my heartfelt congratulations and best wishes to the incoming Chairperson of the Coordinating Council. I am confident that, under the new leadership of the Coordinating Council, COMSATS will continue to move forward with renewed energy, vision, and objectivity. I shall always remain available to support the Organization in any manner possible. I have full trust in the experience, expertise, dedication, and visionary leadership of COMSATS Executive Director to help this IGO attain its long term objectives.



## Focal Ministries in Member States



**Bangladesh**  
Ministry of Science and Technology



**China**  
Ministry of Science and Technology



**Colombia**  
Ministry of Science, Technology and Innovation



**Egypt**  
Academy of Scientific Research and Technology



**The Gambia**  
Ministry of Higher Education, Research, Science and Technology



**Ghana**  
Ministry of Environment, Science, and Technology



**Iran**  
Ministry of Science, Research and Technology



**Jamaica**  
Ministry of Science, Energy and Technology



**Jordan**  
Higher Council for Science and Technology



**Kazakhstan**  
Ministry of Science and Higher Education



**Korea DPR**  
State Academy of Sciences



**Morocco**  
Ministry of Higher Education, Scientific Research and Innovation



**Nigeria**  
Federal Ministry of Science, Technology and Innovation



**Pakistan**  
Ministry of Science and Technology



**Palestine**  
Ministry of Higher Education and Scientific Research



**Philippines**  
Department of Science and Technology



**Senegal**  
Ministry of Higher Education, Research and Innovation



**Somalia**  
Ministry of Education, Culture and Higher Education



**Sri Lanka**  
Ministry of Science & Technology



**Sudan**  
Ministry of Higher Education and Scientific Research



**Syria**  
Ministry of Higher Education and Scientific Research



**Tanzania**  
Ministry of Education, Science & Technology



**Tunisia**  
Ministry of Higher Education and Scientific Research



**Türkiye**  
The Scientific and Technological Research Council of Türkiye (TUBITAK)



**Uganda**  
Uganda National Council for Science & Technology



**Yemen**  
Ministry of Higher Education and Scientific Research



**Zimbabwe**  
Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development

## Members of COMSATS Coordinating Council\*



**Dr. Samina Ahmed**  
Chairman BCSIR, Bangladesh



**Dr. Cristhiane Amancio**  
D.G. Embrapa Agrobiologia, Brazil



**Prof. Lin Zhaohui**  
Director ICCES, China



**Prof. Dr. Hua Xiang**  
Director General TIB, China



**Prof. Dr. Eduardo Posada F.**  
Director CIF, Colombia



**Prof. Mamdouh Moawad**  
President NRC, Egypt



**Prof. Herbert Robinson**  
Vice Chancellor UTG, Gambia



**Prof. Paul Pinnock Bosu**  
Director-General CSIR, Ghana



**Prof. Bambang Pramujati**  
Rector ITS, Indonesia



**Prof. Alireza Ashori**  
President IROST, Iran



**Prof. Charles N. Grant**  
Director General ICENS, Jamaica



**HRH Princess Sumaya bint El Hassan**  
President RSS, Jordan



**Prof. Dr. Zhanset Tuimebayev**  
Rector KazNU, Kazakhstan



**Prof. Benjamin O. Oyelami**  
Ag. Director/Chief Executive NMC, Nigeria



**Prof. Dr. Raheel Qamar**  
Rector CUI, Pakistan



**Prof. Dr. M. Raza Shah**  
Director ICCBS, Pakistan



**Prof. Dr. Imad F. S. Abukishek**  
President AQU, Palestine



**Prof. Alioune Badara Kandji**  
Rector/President UCAD, Senegal



**Prof. Pedro Mercado Pacheco**  
Rector UGR, Spain



**Prof. Ilmi G. N. Hewajulige**  
Director General ITI, Sri Lanka



**Dr. Itmad Awad Al-Hassan**  
Director General IRCC, Sudan



**Prof. Omran KOUBA**  
Director HIAST, Syria



**Prof. M. M.A. Mtambo**  
Director General TIRDO,  
Tanzania



**Pr. Hakim GABTNI**  
Director General CERTE,  
Tunisia



**Prof. Dr. Orhan AYDIN**  
President TUBITAK, Türkiye

\* As of June 2026

# 1. CORE ACTIVITIES OF COMSATS SECRETARIAT

|                                                                                                                      |    |
|----------------------------------------------------------------------------------------------------------------------|----|
| • Technical Advisory Committee                                                                                       | 02 |
| • High-Level Engagements with COMSATS Chairperson and Ghana Focal Point                                              | 05 |
| - Executive Director of COMSATS Calls on President of Ghana and Chairperson of COMSATS                               | 05 |
| - COMSATS Delegation Engages Ghanaian Focal Point and its Centre of Excellence to Consolidate Strategic Partnerships | 06 |
| • High-Level COMSATS Engagements in Jordan                                                                           | 08 |
| - Executive Director COMSATS Meets Her Royal Highness Princess Sumaya bint El Hassan During Official Visit to Jordan | 08 |
| • Interactions with Host Country, Pakistan                                                                           | 10 |
| - Secretary, COMSATS Focal Point Ministry of Science and Technology, Visits Secretariat                              | 10 |
| - COMSATS Cooperation with its Centre of Excellence – CUI in Pakistan                                                | 10 |
| • Other Important Activities                                                                                         | 11 |
| - Diplomats Join COMSATS ‘Forever Green Plantation’ Drive for Environmental Sustainability                           | 11 |
| - Adopting Green Technology, COMSATS FSEL Sign Agreement                                                             | 12 |
| - Digital Skills Training Program for Pakistani Youth in Merged Areas                                                | 13 |
| - COMSATS Officials Receive Advanced Diplomatic Training                                                             | 13 |



# CORE ACTIVITIES OF COMSATS SECRETARIAT

*COMSATS Secretariat provides secretarial support to both the Commission and the Network of Centres of Excellence. It is, inter alia, responsible for regularly holding statutory body meetings as well as following up on their deliberations and decisions. The Secretariat also executes COMSATS' programmes and activities in partnership with other international agencies, national S&T institutions, R&D organizations, members of academia and scientific community across the world. Other core activities of the Secretariat pertain to: pooling and management of financial resources; enhancing the membership of COMSATS and its Network; and special liaison with the host country, apart from regular engagement with all member states.*



H.E. John Dramani Mahama, Honourable President of the Republic of Ghana / Chairperson of COMSATS



HRH Princess Sumaya bint El Hassan, President, Royal Scientific Society, Jordan

## Technical Advisory Committee

### 3rd Meeting of COMSATS Technical Advisory Committee

The 3rd Meeting of the COMSATS Technical Advisory Committee (TAC) was convened on 14 October 2025 in Amman, Jordan, under the gracious patronage of Princess Sumaya bint El Hassan, President of the Royal Scientific Society, one of COMSATS' founding Centres of Excellence (CoEs). Hosted by the Princess Sumaya University for Technology, the meeting marked the revival of the TAC after an eight-year hiatus and restored its role as a central strategic advisory platform guiding the scientific direction of COMSATS.

The session brought together distinguished Members from across Asia, Africa, the Caribbean, and the Middle East, alongside online representation from United Nations



Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, chairing the 3rd Meeting of the COMSATS Technical Advisory Committee (TAC) held in Jordan

Industrial Development Organization (UNIDO).

In her opening institutional briefing, Prof. Dr. Wejdan Abu-Elhaija, President of the Princess Sumaya University for Technology (PSUT) and member of the Technical Advisory Committee, outlined the University's evolution within the

tripartite ecosystem of the Royal Scientific Society, underscoring its integrated model that synergizes higher education, applied research, technological innovation, and structured industry engagement. She highlighted PSUT's advancements in artificial intelligence, cybersecurity, entrepreneurship, and green innovation, as well as its global accreditations and strong



Participants and Distinguished Members of the COMSATS Technical Advisory Committee

graduate employability outcomes. Her intervention underscored the importance of universities functioning not merely as teaching institutions but as dynamic innovation hubs aligned with national competitiveness and technological transformation.

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, reaffirmed the Organization's founding vision inspired by Abdus Salam, to narrow the scientific and technological divide between developed and developing countries. He presented progress achieved under the COMSATS Research and Development Fund (2022–2025), which has supported applied research initiatives in renewable energy technologies, electric mobility prototypes, biotechnology applications, and climate-responsive tools within Member States. Emphasizing pragmatism and measurable impact, he noted that future programming must strengthen commercialization pathways, industrial co-creation, and policy uptake, ensuring that research outputs translate into tangible socioeconomic value.

Ambassador Zakaria also outlined ongoing institutional reforms aimed at modernizing the Secretariat and strengthening Member State ownership. These include the creation of thematic cluster coordination mechanisms across key domains such as biotechnology, ICTs, health sciences,

climate change, nanotechnology, and clean energy, with coordinators to be nominated by Member States on a rotational basis. The reform seeks to reinforce distributed leadership, enhance technical coherence within the Network of CoEs, and deepen South–South collaboration as a functional modality rather than a declaratory principle.

In his intervention, Prof. Marcelo Knobel, Executive Director of The World Academy of Sciences (TWAS), reflected on the longstanding intellectual synergy between TWAS and COMSATS. He reiterated TWAS' readiness to expand joint capacity-building initiatives, fellowships, and collaborative research aligned with the Sustainable Development Goals. Importantly, he cautioned that rapid advances in artificial intelligence and automation necessitate parallel

investments in human development, intercultural literacy, and ethical governance. He stressed that scientific cooperation must integrate the humanities and social sciences to ensure that technological progress remains socially responsive and inclusive.

Prof. Dr. Ashraf Shaalan, Chairperson of the Coordinating Council, focused on the strategic centrality of COMSATS' Network of International S&T Centres of Excellence. He emphasized that CoEs must evolve from passive institutional listings to active engines of technology co-creation, applied research, and structured capacity-building. Discussions reviewed thematic overlaps, regional representation, and the need for greater complementarity across Centres. It was widely acknowledged that expanding the Network into frontier domains, such as artificial intelligence



Technical Session of the 3rd Meeting of the COMSATS Technical Advisory Committee (TAC) in Progress





Participants and Distinguished Members of the COMSATS Technical Advisory Committee

applications, clean technologies, digital health systems, green hydrogen, industrial biotechnology for the circular economy, and AI-supported climate modelling, would strengthen both relevance and impact, provided such expansion remains strategically sequenced and resource-conscious.

Substantive deliberations under the agenda focused on reviewing implementation of technical programmes during 2024–2025 and shaping the forthcoming Strategy 2026–2030. Members assessed progress in telehealth deployment, training workshops, research exchanges, and innovation cataloguing. The telehealth initiative was recognized as a practical model of technology-enabled public service delivery, with recommendations to enhance monitoring frameworks and integrate AI-supported diagnostics where feasible. Similarly, participants emphasized the importance of maintaining a dynamic Catalogue of Innovations and an updated Directory of Resource Persons to better leverage the intellectual capital distributed across the Network.

A significant portion of the discussion centered on artificial intelligence governance and preparedness. Several members proposed the formulation of a comprehensive COMSATS AI Strategy encompassing open-source, context-

sensitive AI models built on Member State data, federated learning approaches, and guidance on regulatory and ethical frameworks. The proposal to establish a Centre on Artificial Intelligence received particular attention as a pragmatic mechanism to build decision-makers' competencies rather than focusing solely on technical specialists.

TAC members also addressed structural coordination challenges. The need for more responsive national focal points, clearer communication channels between the Secretariat and CoEs, and institutionalized annual meetings of COMSATS' governing bodies was strongly articulated. It was recommended that existing coordination gaps be explicitly acknowledged in the forthcoming Strategy document, accompanied by strengthened engagement protocols with Ministries of Science and Technology in Member States.

The Committee further reflected on financial sustainability and institutional visibility. Beyond core governmental contributions, members encouraged development of revenue-generating streams, such as consultancy services, specialized training programmes, and collaborative research partnerships, while preserving COMSATS' intergovernmental character. The proposed establishment of a Council of Ambassadors in Islamabad and

the operationalization of thematic cluster coordinators were viewed as measures to enhance diplomatic outreach and distributed scientific leadership without imposing disproportionate financial burdens.

Throughout the deliberations, there was a consistent emphasis on ensuring that COMSATS' technical agenda remains aligned with pressing global challenges, climate resilience, digital inequities, energy transition, health system strengthening, and youth employability, while maintaining realistic implementation pathways. Members stressed that strengthening the Network of CoEs must translate into improved research connectivity, practical technology transfer, and inclusive capacity-building that does not exacerbate internal disparities within the Global South.

The meeting concluded with consensus on institutionalizing the TAC as an annual advisory mechanism, reinforcing year-round scientific coordination through structured virtual engagement, and positioning the forthcoming Fourth COMSATS Summit in Accra, Ghana (2026) as an opportunity to consolidate political support and strategic partnerships. The revived TAC thus reaffirmed its role as a critical instrument for ensuring that COMSATS' scientific





ED COMSATS Amb. M. Nafees Zakaria in a meeting with H.E. John Dramani Mahama  
President of the Republic of Ghana, at the Jubilee House, Accra

cooperation architecture remains responsive, cohesive, and development-oriented in a rapidly evolving technological landscape.

### High-Level Engagements with COMSATS Chairperson and Ghana Focal Point

#### Executive Director of COMSATS Calls on President of Ghana and Chairperson of COMSATS

The Executive Director, Ambassador Mohammad Nafees Zakaria, visited Ghana in September 2025 and called

on the COMSATS Chairperson, the President of the Republic of Ghana, H.E. John Dramani Mahama. The Executive Director briefed the Chairperson on the activities of COMSATS in line with its objectives and some of the milestones achieved, including the establishment of an ISO-certified Nanotechnology Lab; indigenously developed multi-sector socio-economic EV technology with patents and WP-29 compliance to address air pollution and environmental issues; the launch of cloud computing; the settlement of unprecedented financial liabilities; and a telehealth ecosystem to provide primary healthcare virtually at the doorstep of poor people living in far-flung areas of the

country, with doctors sitting thousands of miles away in urban centres.

High on the agenda was the convening of the 4th Summit-level session of the Commission, for which the Executive Director sought the Chairperson's consent. The Commission meeting is scheduled for 2026. President Dr. Mahama assured full support to the Secretariat. The President appreciated COMSATS' approach of providing tech-driven solutions to address the problems faced by member states. He expressed keen interest in the proposals offered through the Secretariat for Ghana.

The COMSATS Centre for Climate



Group photo of participants following the meeting with H.E. John Dramani Mahama, President of the Republic of Ghana / Chairperson of COMSATS at the Jubilee House, Accra



ED COMSATS and delegation in a meeting with H.E. Ms. Suweibatu Adam, Chief Director of MEST



Ambassador Dr. Nafees Zakaria, Executive Director COMSATS, presenting commemorative shields to officials of MEST, Ghana

and Sustainability (CCCS) played a pivotal role in facilitating this high-level engagement by undertaking the necessary preparatory coordination for the Executive Director's briefing to the Chairperson. During the visit, H.E. President Dr. John Dramani Mahama graciously signed a commemorative booklet documenting six years of progress towards the global sustainability agenda. The booklet highlighted the contributions of CCCS in advancing climate action through strategic engagement with international partners and close collaboration with COMSATS' Centres of Excellence (COEs). The Chairperson appreciated of CCCS's growing role in promoting science- and technology-driven, policy-oriented solutions to climate change and sustainable development, while reaffirming the importance of strengthening collaborative initiatives across the COMSATS network in support of the Global South.

H.E. President Mahama underscored the importance of COMSATS as a key

intergovernmental platform for leveraging science, technology, and innovation in support of sustainable development across the Global South.

Building on these engagements, COMSATS has initiated coordinated follow-up with MEST to advance preparations for the Commission's General Meeting at the summit level. The ongoing process focuses on strategic planning, resource mobilization, and alignment with Ghana's national development agenda, with the objective of ensuring a successful, inclusive, and impactful summit.

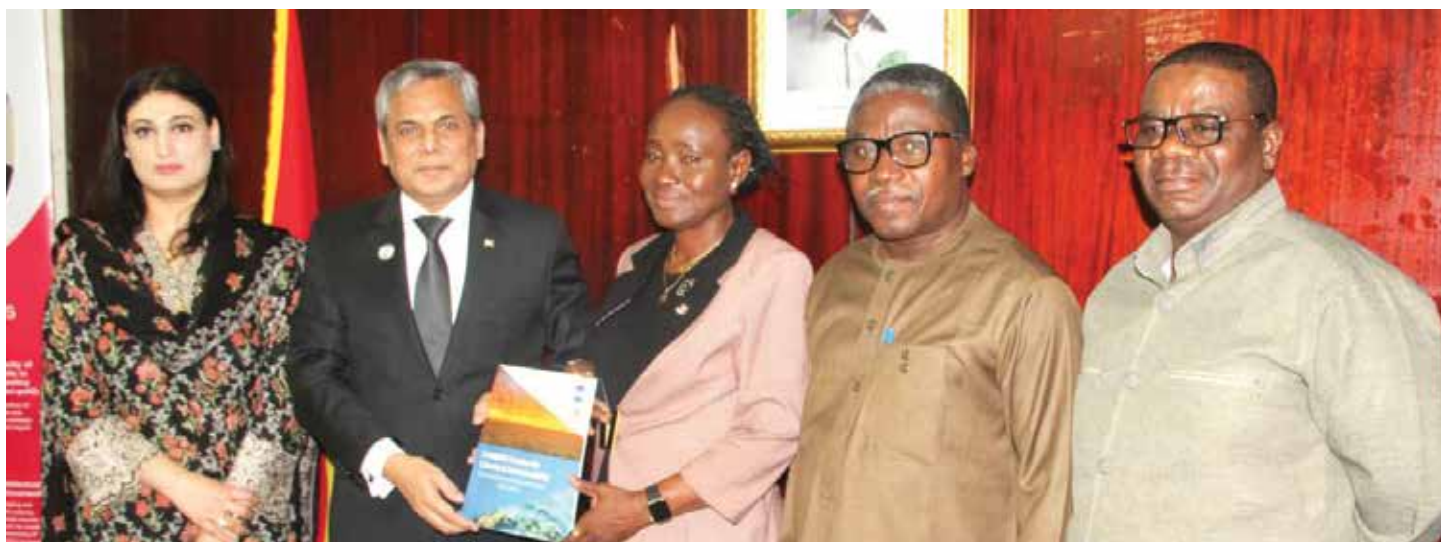
### COMSATS Delegation Engages Ghanaian Focal Point and its COE to Consolidate Strategic Partnerships

In September 2025, a high-level COMSATS delegation, led by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director, visited the Republic of Ghana to strengthen cooperation in science, technology, and innovation. The delegation

was accorded a distinguished audience with H.E. John Dramani Mahama, President of the Republic of Ghana and Chairperson of COMSATS. Following this meeting, Ambassador Zakaria held a series of engagements with Ghana's designated Focal Point to COMSATS at the Ministry of Environment, Science and Technology (MEST), as well as with the Council for Scientific and Industrial Research (CSIR), Ghana's COMSATS Centre of Excellence.

In line with COMSATS' mandate to deliver science- and technology-based solutions, Ambassador Zakaria briefed Ghanaian counterparts on transformative initiatives, including the Codiskills Training Programme: Coding for Employment, aligned with Ghana's "One Million Coders" initiative; the Genomic Sequencing Programme aimed at developing precision medicine capacity; energy backup systems to mitigate power outages; and the deployment of indigenous Electric Vehicle (EV) technologies. These initiatives reflect COMSATS' commitment to fostering





Amb. Dr. Nafees Zakaria, ED COMSATS, presenting the CCCS at a Glance publications to Ms. Suweibatu Adam, Chief Director, MESTI

innovation for sustainable development across the Global South. The delegation highlighted the work of the COMSATS Centre for Climate and Sustainability (CCCS) as a dedicated platform for advancing climate action through science, technology, and innovation. Ghanaian counterparts were briefed on CCCS's initiatives in climate policy, capacity building, green technologies,

and collaborative programmes with international partners and COEs, while exploring opportunities for cooperation in climate-smart agriculture, renewable energy, disaster risk reduction, and other sustainability-focused initiatives.

The delegation also visited CSIR, warmly received by Prof. Paul Pinnock Bosu and senior officials, including Dr. Daniel

Asenso-Gyambibi (BRRI) and Dr. Paul Asante Danquah (CSIR-INSTI). Ambassador Zakaria commended CSIR's longstanding contributions to scientific research and industrial innovation, as well as its role in Ghana's socio-economic development. Prof. Bosu expressed CSIR's readiness to further strengthen collaboration with COMSATS in priority areas, including food security, climate-smart agriculture, cybersecurity, and information technology.

The delegation encouraged CSIR to actively participate in COMSATS' inter-regional programmes and to avail opportunities offered through the Network, including prestigious fellowships such as the President's International Fellowship Initiative (PIFI), the CAS-ANSO Fellowship Programme, and the CAS-TWAS Fellowships at COMSATS Centres of Excellence in China (ICCES and TIB).

This high-level mission marked a significant milestone in COMSATS' efforts to advance scientific collaboration and innovation across its Member States. Interactions with national authorities and Centres of Excellence reaffirmed shared commitments to sustainable development in the Global South.





Amb. Dr. Nafees Zakaria, ED COMSATS, presenting commemorative shield and a photo album to HRH Princess Sumaya bint El Hassan

## High-Level COMSATS Engagements in Jordan

### Executive Director COMSATS Meets Her Royal Highness Princess Sumaya bint El Hassan During Official Visit to Jordan

In October 2025, a high-level COMSATS delegation, led by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director, undertook an official visit to the Hashemite Kingdom of Jordan in connection with the 3rd Meeting of COMSATS' Technical Advisory Committee (TAC) and a joint training workshop on Artificial Intelligence and Emerging Technologies. The workshop was hosted by the Princess Sumaya

University for Technology (PSUT) under the patronage of Her Royal Highness Princess Sumaya bint El Hassan, President of the Royal Scientific Society (RSS).

On 15 October 2025, Her Royal Highness graciously hosted a gathering in honour of COMSATS, PSUT, ICESCO, TAC members, and workshop delegates, which served as a platform for high-level dialogue with senior Jordanian officials and institutional partners. In her address, HRH Princess Sumaya commended COMSATS for its leadership in advancing science diplomacy and technological innovation across the Global South, noting that platforms such as COMSATS, ICESCO, and TWAS are collectively fostering an ecosystem where knowledge

transcends borders and science functions as a shared instrument for peace, equity, and sustainable progress. She further recalled that the Industrial Chemistry Centre of the Royal Scientific Society was among the first COMSATS Centres of Excellence designated in 1997, a legacy now extended through PSUT's role as a regional hub for digital innovation and artificial intelligence.

Ambassador Dr. Zakaria expressed appreciation for the continued support and visionary leadership of Her Royal Highness in promoting science, technology, and innovation for development. He reaffirmed COMSATS' commitment to strengthening institutional collaboration with the Royal Scientific Society, PSUT,



Amb. Dr. Nafees Zakaria, ED COMSATS, presenting commemorative shield and a photo album to HRH Princess Sumaya bint El Hassan





HRH Princess Sumaya bint El Hassan, graciously hosted official dinner in honour of COMSATS delegates, and TAC members

and the Higher Council for Science and Technology (HCST), emphasizing that such engagements contribute to advancing an integrated ecosystem of scientific exchange and capacity-building across Member States.

The visit also provided an opportunity to highlight the work of the COMSATS Centre for Climate and Sustainability (CCCS) in promoting collaborative research, policy dialogue, and technical cooperation on climate change and sustainable development across the

COMSATS network. Discussions covered CCCS's engagement with international organizations, research institutions, and COMSATS' Centres of Excellence in advancing climate resilience, knowledge exchange, and capacity-building.

Both sides acknowledged the importance of strengthening collaboration in areas such as climate-smart technologies, environmental sustainability, and innovation-driven solutions to address global climate challenges, while exploring opportunities for future institutional

cooperation with Jordanian partners.

The interaction concluded with Her Royal Highness reiterating sustained institutional support for COMSATS-led initiatives.

On the occasion, Ambassador Dr. Zakaria presented a commemorative photo album depicting historic visits of the Jordanian Royal Family to Pakistan, symbolizing the enduring bonds of friendship and cooperation between the two countries.



Group photo of the COMSATS delegation and Technical Advisory Committee members with HRH Princess Sumaya bint El Hassan in Jordan



Federal Secretary, MoST, receiving a briefing from senior officials of COMSATS during his visit to the COMSATS Secretariat



Secretary, Ministry of Science and Technology (MoST), Pakistan, Mr. Shahid Baloch, visiting the COMSATS Secretariat, Islamabad



### COMSATS Cooperation with its Centre of Excellence – CUI in Pakistan

On November 18, 2025, Prof. Dr. Raheel Qamar, Rector of COMSATS University Islamabad (CUI), paid an official visit to the COMSATS Secretariat to meet the Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, who is the ex-officio Pro-Chancellor II of the University. Prof. Raheel Qamar reaffirmed CUI's commitment to supporting COMSATS' international programmes, particularly those pertaining to academic collaboration, scientific research, and knowledge-sharing initiatives across COMSATS' Member States. The Rector expressed CUI's willingness to serve as an active member in advancing COMSATS' mandate of fostering science and technology for sustainable development in Pakistan and the Global South.

Prof. Raheel Qamar also witnessed a live demonstration of the Electric Vehicle (EV) Bike developed by COMSATS' technology partner, AGEKO. The demonstration highlighted the practical strides being made through COMSATS' collaborative innovation initiatives in green technology. Other Important Activities and sustainable mobility.

### Interactions with Host Country, Pakistan

#### Secretary, COMSATS Focal Point Ministry of Science and Technology, Visits Secretariat

Secretary, Ministry of Science and Technology (MoST), Pakistan, Mr. Shahid Baloch, visited the COMSATS Secretariat, Islamabad. Senior officials of COMSATS comprehensively briefed the Federal Secretary on the Organization's diverse portfolio of programmes, activities, and strategic initiatives. The briefing encompassed COMSATS' ongoing efforts in science, technology, and innovation across its Member States, as well as flagship initiatives being implemented within Pakistan. The Federal Secretary

also witnessed a live demonstration of COMSATS' Electric Vehicle (EV) Bike initiative, one of the Organization's notable contributions to sustainable mobility and green technology.

The Federal Secretary commended COMSATS' efforts and affirmed the Ministry's full support for the Organization in advancing its mandate. The Federal Secretary provided strategic guidance for scaling up several high-impact programmes, with particular emphasis on the COMSATS Telehealth Programme, the Electric Vehicle initiative, and climate-related interventions, all of which align closely with national and global sustainable development imperatives.





Group photo of the participants during the visit of the Chairperson of the Consultative Committee and the Federal Secretary, MoST to the COMSATS Secretariat.



Prof. Dr. Raheel Qamar, Rector CUI, and Ambassador Dr. Mohammad Nafees Zakaria during a meeting at the COMSATS Secretariat

## Other Important Activities

### Diplomats Join COMSATS 'Forever Green Plantation' Drive for Environmental Sustainability

On 7th August 2025, COMSATS, in pursuance of its climate-related activities, launched a Plantation Drive, whereby Ambassadors of the Member States and the Partner Countries in Islamabad planted trees as a symbol of peace, cooperation, and commitment to a greener planet.

Ambassador Turkmenistan, H.E. Mr. Atadjan Movlamov, Dean of Diplomatic Corps, Ambassador of Kazakhstan, H.E. Mr. Yerzhan KISTAFIN; Ambassador of

Morocco, H.E. Mr. Mohamed Karmoune; Ambassador of Syria, H.E. Dr. Ramez Alraee, Ambassador of Yemen, H.E. Mr. Mohammed Motahar Alashabi, planted a tree each during the the Plantation Ceremony, held at COMSATS Secretariat, at the invitation of Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria. The trees were dedicated to the Ambassadors. Separately, distinguished British MP, Hon. Ms. Naz Shah, also planted a tree while lauding the initiative.

On 25th August 2025, as part of its ongoing Green Initiative, continued its plantation drive. On the invitation of Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, tree saplings were planted

by Ambassador of Palestine, H.E. Dr. Zuhair Mohammad Hamdallah Zaid; High Commissioner of Sri Lanka, H.E. Rear Admiral (R) Fred Seneviratne; Ambassador of Somalia, H.E. Sheikh Nur Mohamed Hassan; Ambassador of Uzbekistan, H.E. Alisher Tukhtaev; and Ambassador of Zimbabwe, H.E. Titus Mehliswa Johnathan Abu Basutu. The plantation drive symbolized efforts for enduring peace and support for COMSATS' environmental sustainability efforts.

The Ambassadors highly appreciated COMSATS endeavors to protect the environment. They shared their thoughts to underline S&T cooperation and significance of multilateral initiatives in addressing the pressing global challenge of climate change. The dignitaries expressed their firm resolve to support the Organization's endeavors in promoting tech-based solutions for a sustainable and resilient future.

The Ambassadors Extraordinary & Plenipotentiary, who planted trees, stressed that international cooperation and initiatives for environmental sustainability are the need of the hour as climate change has taken center stage given its bearing on a wide range of cross-cutting fields. They highly appreciated the initiative and expressed their strong commitment to





support COMSATS in meeting its noble objectives.

COMSATS as an IGO, committed to promoting South-South cooperation in scientific research, innovations, and tech-based solutions for sustainable development. The organization is committed to environmental sustainability and climate resilience and has taken a number of green initiatives, such as the development of electric vehicle, research on Renewable Energy (Vertical Axis Wind Turbine), and solarization of COMSATS Technology Park.

### Adopting Green Technology, COMSATS FSEL Sign Agreement

COMSATS and Foundation Solar Energy signed a contractual agreement on 12th February 2025, for commissioning Solar System at COMSATS Technology Park, in pursuit of adopting Green Technology.

The signing ceremony was graced by the Ambassadors/High Commissioners of Jordan, Kyrgyz Republic, Malaysia, Morocco, Nigeria, Somalia, Syria, Sudan and Yemen with their attendance.

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, briefed the Ambassadors on the initiative of Solar System. He said that it was in line with the SDG-7 of the United Nations. The renewable energy system will not only save electricity bill but it serves the purpose of reducing pressure on energy demand vis-à-vis the shortfall in the supply resources. He appreciated FSEL/Fauji Foundation for their share in fulfilling the Corporate Sector Responsibility (CSR) along with COMSATS.

The dignitaries appreciated the activities undertaken at COMSATS under Ambassador Zakaria's leadership.

Ambassador Zakaria also briefed the dignitaries on his upcoming initiative of establishment of a Nano-Tech Lab at





Group photo of the signing ceremony attended by Ambassadors/High Commissioners of Jordan, Kyrgyz Republic, Malaysia, Morocco, Nigeria, Somalia, Syria, Sudan, and Yemen

the Secretariat for capacity building and research activities of PhD students and for other applications.

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

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.

Till date, 4,672 trainees have either completed or currently undergoing the training.

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

### COMSATS Officials Receive Advanced Diplomatic Training

In recognition of the strategic role of diplomacy in advancing South-South cooperation and global engagement, senior

officials from COMSATS participated in an intensive training program on diplomatic conduct and communication. The specialized training was organized by the Foreign Service Academy (FSA), Islamabad, from January 20 to 23, 2025.

Led by two distinguished diplomats – Ambassador Nadeem Riyaz and Ambassador Mazhar Javed – the program provided COMSATS personnel with critical skills for navigating international diplomatic environments. The curriculum focused on enhancing cross-cultural awareness, diplomatic etiquette, negotiation strategy, and professional communication in multilateral settings. Ambassador Nadeem Riyaz’s sessions focused on cultural intelligence and protocol management, equipping participants with the ability to engage effectively across diverse cultural and political contexts. Key competencies included managing diplomatic sensitivities, conducting high-level negotiations, and maintaining composure and professionalism during official engagements.

Ambassador Mazhar Javed delivered in-depth modules on diplomatic communication and correspondence, emphasizing the nuances of tone, terminology, and structure in official



writing. Participants developed expertise in crafting culturally appropriate and impactful diplomatic documents and statements—vital for representing COMSATS in international fora.

The training significantly enhanced the diplomatic readiness of COMSATS officials, strengthening their capacity to represent the organization in global platforms, foster international

partnerships, and advance COMSATS' mission of collaborative science and technology development through informed, strategic diplomacy.



Training Session in progress



Group photo of COMSATS officials with Ambassadors Nadeem Riyaz and Mazhar Javed after the training session



## 2. STRENGTHENING SOUTH-SOUTH AND TRIANGULAR COOPERATION

|                                                                                                 |    |
|-------------------------------------------------------------------------------------------------|----|
| • Meetings with Delegates, Diplomats, and Officials of Member States                            | 16 |
| - H.E. Mr. İrfan Neziroğlu, Ambassador of Türkiye to Pakistan (26th February 2025)              | 16 |
| - High-Level Delegation from Iran (18th April 2025)                                             | 17 |
| - Delegation from Kazakhstan (28th April 2025)                                                  | 18 |
| - H.E. Mr. Md. Iqbal Hussain Khan, High Commissioner of Bangladesh to Pakistan (23rd June 2025) | 18 |
| • Meetings with Delegates, Diplomats, and Officials of Potential Member States                  | 19 |
| - H.E. Mr. Avazbek Atakhanov, Ambassador of Kyrgyzstan to Pakistan (28th January 2025)          | 19 |
| - His Highness Prince Tengku Fahad Mua'adzam Shah (7th February 2025)                           | 19 |
| - Delegation from Scottish University (16th April 2025)                                         | 21 |

# STRENGTHENING SOUTH-SOUTH AND TRIANGULAR COOPERATION

*One of the main functions of COMSATS is to support major initiatives designed to promote indigenous S&T capacity through synergies among relevant Governments in the North and the South. Dignitaries, officials and delegations from a number of countries are engaged on regular basis to establish and promote linkages to help strengthen South-South and Triangular cooperation in a number of fields, including education, training and research, climate change, SDGs, and emerging technologies.*



His Highness Prince Tengku Fahad Mua'adzam Shah, with Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, and his team at COMSATS Secretariat, Islamabad

## Meetings with Delegates, Diplomats, and Officials of Member States

**H.E. Mr. İrfan Neziroğlu,**  
**Ambassador of Türkiye to Pakistan**  
**(26th February 2025)**

The Turkish Ambassador to Pakistan, His Excellency İrfan Neziroğlu, called on the Executive Director of COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, at the COMSATS Secretariat, Islamabad.

During the meeting, the two discussed avenues of cooperation between COMSATS and the Republic of Türkiye and agreed to enhance collaboration in science, technology, and innovation. The Executive Director while introducing COMSATS highlighting that it has 27 Member States from Asia, Africa, Middle



H.E. Mr. İrfan Neziroğlu, Ambassador of Türkiye to Pakistan, during a meeting with Ambassador Nafees Zakaria, Executive Director COMSATS, at the COMSATS Secretariat

East and Latin America, and a Network of 25 Centres of Excellence is affiliated with organization that provides its technical arm for scientific cooperation.

Amb. Zakaria briefed the Turkish Ambassador about COMSATS' recent tech-based initiatives. In particular, he noted that the initiative in the field of

Electric Vehicles (EV) is strategic and in line with the overall objectives of COMSATS for sustainable development. He informed the Turkish Ambassador about the Nanotechnology Lab established at COMSATS Secretariat that is equipped with advanced research facilities and managed by leading professors and technologists. He expressed COMSATS'





commitment to sharing expertise and scaling up scientific cooperation with Türkiye. The Executive Director also provided an overview of collaboration between COMSATS and TUBITAK, a Centre of Excellence of COMSATS in Türkiye.

The Turkish Ambassador acknowledged the efforts being made by COMSATS for promotion of scientific cooperation. He pledged to use his good offices to share the information on COMSATS EV initiative with the relevant Ministry back home. Ambassador Neziroğlu informed that Türkiye plans to organize a University Cooperation Exhibition, which could serve as a platform for further building academic and research partnerships.

The meeting concluded on a note to strengthen collaboration in research, academic & Scientific exchanges, as well as use of emerging technologies to foster innovation for sustainable development.

#### **Executive Director of COMSATS Visits the Embassy of Türkiye (16th July 2025)**

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, paid a courtesy call on H.E. Mr. İrfan Neziroğlu, Ambassador of the Republic of Türkiye to Pakistan, at the Embassy of Türkiye in Islamabad. The meeting aimed to further strengthen the long-standing relationship and cooperation between Türkiye and COMSATS in the fields of science, technology, and innovation.

Ambassador Zakaria shared a comprehensive overview of past collaborative activities, including co-organized scientific workshops and conferences in Türkiye, and participation of Türkiye's experts in COMSATS' events and activities in Member States. The Executive Director offered postgraduate scholarships to Turkish students at COMSATS University Islamabad (CUI), Pakistan. He informed that COMSATS is initiating a series of online certification



training courses for skills development in information technology for the benefit of the Member States and looked forward to participation of Türkiye's professionals in the same.

Ambassador Neziroğlu appreciated COMSATS' programmes and recent initiatives. He stated that Science & Technology is a top agenda for Türkiye.

He expressed willingness to facilitate Türkiye's active participation in the programmes and activities of COMSATS. He also offered to connect Turkish R&D institutions with relevant institutions in COMSATS' other Member States for mutually beneficial scientific cooperation.

#### **High-Level Delegation from Iran (18th April 2025)**

The COMSATS Secretariat received a high-level delegation from the Islamic Republic of Iran. The visit coincided with the delegation's participation in the prestigious International Conference on Science, Technology, and Innovation (ST&I), jointly convened by the ECO Science Foundation (ECOSF) and the Higher Education Commission (HEC) of Pakistan.

The delegation comprised eminent scholars and senior officials from leading



scientific and technological institutions in Iran.

A comprehensive briefing on COMSATS' mandate, governance structure, flagship programmes, and collaborative initiatives aimed at advancing South-South cooperation in science and technology was given.

The briefing highlighted COMSATS' state-



Group Photo of the Participants



High-level Iranian delegation visiting the COMSATS Secretariat

of-the-art Nanotechnology Laboratory at its Secretariat, which garnered significant interest from the delegation as a potential platform for collaborative research, innovation, and technology transfer.

### Delegation from Kazakhstan (28th April 2025)

A high-level delegation from Kazakhstan visited COMSATS Secretariat, comprising senior officials of COMSATS' Focal Point, Ministry of Science and Higher Education and officials from Al-Farabi Kazakh National University (KazNU), Centre of Excellence for the COMSATS.

Executive Director COMSATS, Amb. Dr. Mohammad Nafees Zakaria, welcomed the delegation. They exchanged views on the prospective areas of collaboration, particularly in the domains of emerging technologies, diversify cooperation through training programmes, academic scholarships, and joint research initiatives.

The visit reaffirmed the importance accorded by COMSATS to its collaboration with Kazakhstan as a valued Member State, and acknowledged the pivotal roles of the Ministry of Science and Higher Education and KazNU in advancing the Commission's objectives.

### H.E. Mr. Md. Iqbal Hussain Khan, High Commissioner of Bangladesh to Pakistan (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





H.E. Mr. Md. Iqbal Hussain Khan, High Commissioner of Bangladesh, during his visit to the COMSATS Secretariat

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 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.

### Meetings with Delegates, Diplomats, and Officials of Potential Member States

#### H.E. Mr. Avazbek Atakhanov, Ambassador of Kyrgyzstan to Pakistan (28th January 2025)

COMSATS Explores Strategic Collaboration with Kyrgyz Embassy to Expand Regional Engagement, H.E. Avazbek Atakhanov, Ambassador of the Kyrgyz Republic to Pakistan, visited the COMSATS Secretariat and met with Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS. The meeting aimed to explore opportunities for bilateral cooperation in



Group Photo of the High Commissioner of Bangladesh along with the Rector of CUI and University officials during his visit to the University



H.E. Mr. Avazbek Atakhanov, Ambassador of Kyrgyzstan to Pakistan, and Executive Director COMSATS, Amb. Dr. M. Nafees Zakaria

science, technology, and higher education, as well as to discuss potential avenues for Kyrgyzstan's accession to COMSATS.

During the engagement, Ambassador Zakaria provided a detailed overview of COMSATS' mission, strategic priorities, and its role in promoting South-South cooperation through science and technology. He emphasized the significance of Central Asian participation in the organization's multilateral framework and sought the Ambassador's support in facilitating Kyrgyzstan's accession to COMSATS as a Member State.

Ambassador Atakhanov welcomed

the initiative and assured his support, expressing willingness to liaise with relevant Kyrgyz governmental bodies and academic institutions to explore formal engagement with COMSATS. Both parties also discussed the potential for joint programs in capacity building, research collaboration, and technological innovation.

The meeting concluded with a mutual commitment to strengthen ties and initiate follow-up actions aimed at fostering sustainable partnerships between COMSATS and institutions in Kyrgyzstan, thereby advancing regional cooperation in science and technology.



### His Highness Prince Tengku Fahad Mua'adzam Shah (7th February 2025)

His Highness Prince Tengku Fahad Mua'adzam Shah, a distinguished member of the Royal Family of Pahang, Malaysia, visited COMSATS Secretariat. His Highness was received by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, accompanied by senior officials of the Secretariat.

During the meeting, Ambassador Zakaria briefed Prince Fahad on COMSATS' mandate and its contribution in promoting science, technology and innovation as drivers of socio-economic development in



ED COMSATS, Amb. Dr. Nafees Zakaria, presenting the COMSATS Shield to H.E. Mr. Avazbek Atakhanov, Ambassador of Kyrgyzstan





His Highness Prince Tengku Fahad Mua'adzam Shah meeting Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, at the COMSATS Secretariat

the Global South. The briefing highlighted COMSATS's strategic focus on sustainable development, with particular emphasis on renewable energy, climate technologies, and technology-driven solutions. Flagship initiatives and indigenous electric vehicles (EVs), were presented as tangible evidence of COMSATS' commitment to innovation with practical impact.

The Executive Director also outlined COMSATS' engagement in the global climate processes, including its status as an Observer Intergovernmental Organization at the United Nations Framework Convention on Climate Change (UNFCCC). Key thematic areas of COMSATS' engagement were discussed, including renewable energy

transition, climate-resilient agriculture, decarbonization of transport, carbon market mechanisms, youth engagement, climate diplomacy, development of bankable climate projects, and addressing the growing challenge of antimicrobial resistance.

His Highness appreciated COMSATS' contribution in advancing climate and sustainability priorities relevant to developing countries and expressed interest in fostering closer cooperation with COMSATS, including potential engagements at future sessions of the UNFCCC and other multilateral forums. The meeting recalled the historic collaboration between COMSATS and Malaysian institutions, particularly in the

areas of nanotechnology and renewable energy through capacity-building initiatives.

### Delegation from Scottish University (16th April 2025)

In line with fostering international partnerships, COMSATS Secretariat received a delegation from Robert Gordon University (RGU), Aberdeen, Scotland, to explore strategic avenues for academic and research cooperation between the United Kingdom and COMSATS Member States.

The visiting delegation comprised senior faculty members: Professor Lynn Kilbride, Deputy Vice-Chancellor; Dr.



Group Photo of Amb. Dr. Nafees Zakaria, ED COMSATS, with His Highness Prince Tengku Fahad Mua'adzam Shah and COMSATS officials



Delegation from a Scottish university during a meeting with Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and his team at the COMSATS Secretariat

Dan Allen, Dean of Gray's School of Art; and Dr. John Isaacs, Dean of the School of Computing, Engineering and Technology. Priority areas spanning health sciences, computing, engineering, architecture, and the creative industries were identified for cooperation. Special emphasis was placed on research commercialization, industry-academia linkages, and capacity-building across COMSATS' regional

network. The delegation also visited COMSATS University Islamabad (CUI), the Organization's Centre of Excellence in Pakistan.

The Executive Director of COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, provided a comprehensive briefing on COMSATS' Network of International S&T Centres of Excellence

(COEs), underscoring institutional efforts to foster South-South cooperation, strengthen innovation ecosystems, and facilitate cross-border knowledge exchange. The RGU delegation presented their global engagement strategy and reaffirmed a strong interest in expanding institutional partnerships within the Global South.



### 3. COLLABORATIONS WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS

|                                                                                                     |    |
|-----------------------------------------------------------------------------------------------------|----|
| • Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) | 24 |
| • Iranian Research Organization for Science and Technology (IROST)                                  | 28 |
| • International Center for Chemical and Biological Sciences (ICCBS)                                 | 29 |
| • The World Academy of Sciences (TWAS)                                                              | 29 |
| • Economic Cooperation Organization Science Foundation (ECOSF)                                      | 30 |
| • National Centre for Physics (NCP)                                                                 | 32 |
| • International Center for Agricultural Research in the Dry Areas (ICARDA)                          | 33 |
| • National Disaster Management Authority (NDMA)                                                     | 34 |
| • National Institute of Maritime Affairs (NIMA)                                                     | 35 |
| • IBI International Group                                                                           | 36 |
| • American Institute of Pakistan Studies (AIPS)                                                     | 37 |
| • Welthungerhilfe (WHH)                                                                             | 38 |
| • Sustainable Development Policy Institute (SDPI)                                                   | 38 |
| • China-Pakistan Joint Research Centre on Earth Sciences (CPJRC)                                    | 39 |
| • AGECO                                                                                             | 41 |
| • Developing 8 Organization for Economic Cooperation (D-8)                                          | 42 |

# COLLABORATIONS WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS

*Over the years, COMSATS has expanded its cohort of national and international partners to foster broader and more effective collaborations in Science and Technology and launch new programmes and activities with its Centres of Excellence for sustainable socio-economic development of the Member States. Still growing, these partnerships aim to complement the programmes of COMSATS focusing on capacity-building of Se&T community in developing countries.*



Group photo of participants at the 4th ANSO General Assembly and General Conference 2025

## Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)

### 9th Term of ANSO-BIDI School Inaugurated

The opening ceremony of the 9th term of ANSO-BIDI School for Innovation, Sustainable Development and Leadership Enhancement was held on February 26, 2025.

The Centre for Environmental Economics of the University of Chinese Academy of Sciences (CEE-UCAS), in cooperation with the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO), COMSATS and other members of ANSO Belt & Road



International Innovation Development Institute Network (ANSO-BIDI Institute Network), organized the online training course from 26th February 2025 to 30th April 2025.

The opening ceremony included remarks by Prof. Desheng Wu, Director of the Research Centre for Environmental Economics of UCAS, followed by speeches of Heads of collaborating organizations,



including Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS; Prof. Ljupco Kocarev, President of the Academy of Sciences and Arts, North Macedonia; Prof. Orhan Aydin, President of the Scientific and Technological Research Council of Türkiye (TÜBİTAK), Türkiye; Academician Avid Budeebazar, General Secretary of the Mongolian Academy of Sciences, Mongolia; and Prof. Luis Seco, Professor at the University of Toronto, Canada.

In his address, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, emphasized the significance of leveraging emerging technologies to address global challenges. He highlighted COMSATS' commitment to facilitating its 27 Member States in achieving sustainable development. He noted that COMSATS has been actively organizing capacity-building programs, fostering R&D collaboration, and providing technology-based solutions to its Member States. He highlighted the initiatives of COMSATS in the fields of Artificial Intelligence, Precision Agriculture, Genomic Sequencing, Renewable Energy, and Electric Vehicles, which reflect COMSATS' dedication to promoting ST&I-led development. The Executive Director underscored COMSATS' long-standing collaboration and commitment to ANSO. He appreciated the regular organizing of the ANSO-BIDI School that is contributing to

capacity building of scientific leadership in the developing countries.

For the 9th term of the ANSO-BIDI School, COMSATS has nominated 63 scientists and leaders from its Member States, including Bangladesh, Iran, Jordan, Kazakhstan, Nigeria, Pakistan, Sri Lanka and Sudan, as well as COMSATS Secretariat.

The training course comprises of 10 weekly training modules. The topics being covered by the training course, inter alia, include Supply Chain and Sustainable Development; Environmental, Social, and Governance (ESG) and Green Finance; Computer Science and Engineering; and Innovation, Environment and Sustainability.

The resource persons/experts, belonging to Australia, USA, Sweden, Belgium, Brazil, Poland, Denmark, Canada, Thailand, Switzerland and Germany, are conducting the training course.

#### **ANSO convenes General Conference on Science & Innovation for a Sustainable Future**

The Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) organized the General Conference on Science & Innovation for a Sustainable Future, on 28-29 October 2025 in Beijing. "Open Science

& Innovation for Inclusive Development" Panel Discussion featured high level scientific experts from various parts of the world, including Pakistan, Egypt, Mongolia, Senegal, Serbia and China. The discussion was moderated by Prof. Gretchen Kalonji, Co-Chair of ANSO-DRR & Former Assistant Director General for Natural Sciences, UNESCO.

The Panelists expressed their views and shared expertise in the backdrop of their respective experiences and positions held at national academic institutes and international scientific platforms. Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS was also invited as a Panelist.

Addressing the questions on the significance of Open Science and Open Innovation, Amb. Zakaria stated that research, data and discoveries should be freely available to everyone and not limited to a privileged few. He said that this openness allows scientists, scholars and innovators, especially in the countries of the Global South, to participate fully in global research and development. 'Open Innovation harnesses the power of collective intelligence paving way for groundbreaking advancements', he added. The Executive Director highlighted that COMSATS' creation was envisioned by Nobel Laureate, Prof. Dr. Abdus Salam, with overarching objective to bridge the knowledge & technology gap, powered



COMSATS participated in the panel discussion at the ANSO General Conference on Science and Innovation for a Sustainable Future



Group Photo of the Panelists of the Conference on Science and Innovation for a Sustainable Future

technology-transfer opportunities among Member States. They commended the progress made by COMSATS under the leadership of Amb. Zakaria and appreciated COMSATS' collaboration on various fronts.

The Executive Director renewed the Memorandum of Understanding between COMSATS and the Center for Environmental Economics, UCAS (CEE-UCAS) for educational and research collaboration, which coincided with the start of 10th ANSO-BIDI School. On



Amb. Zakaria with Prof. Chunli Bai



Amb. Zakaria with Prof. Liu Weidong



Amb. Zakaria with Dr. Marcelo Knobel



Amb. Zakaria with Prof. Mamdouh Moawad



Amb. Zakaria with Prof. Cao Jinghua



Amb. Zakaria with Prof. Dr. Jibin Sun

by spirit of inclusiveness and sharing of knowledge, expertise & technology. He shed light on COMSATS' capacity and skill development activities targeting 850 million youth of the Member States, which manifests continued commitment for promoting Open Science and Innovation.

On the sidelines of the Conference, the Executive Director COMSATS held exclusive meetings, inter alia, with Prof. Chunli Bai, Founding President ANSO & Former President, Chinese Academy of Sciences (CAS); Prof. Liu Weidong, Executive Director ANSO; Dr. Marcelo

Knobel, Executive Director, The World Academy of Sciences (TWAS); Prof. Mamdouh Moawad, President, National Research Centre (NRC), Egypt; Prof. Cao Jinghua, Senior Consultant for Natural Sciences, UNESCO; Prof. Desheng Wu, University of Chinese Academy of Sciences (UCAS); and Prof. Dr. Jibin Sun, Tianjin Institute of Industrial Biotechnology (TIB), China. During these meetings, he highlighted COMSATS' initiatives in EV, Nanotech, Telehealth, IT, Environment, etc.; discussed opportunities for cooperation in emerging technologies & skills development of youth; and explored



Amb. Zakaria with Prof. Desheng Wu



special invitation, Amb. Zakaria also participated at the meeting of ANSO Africa Hub of Science and Innovation (AAHSI), and made recommendations regarding working plan of the Hub.

### **COMSATS re-elected as member of ANSO Governing Board**

4th ANSO General Assembly, held in Beijing on 30-31 October 2025, elected its Governing Board's Members. COMSATS, which was serving 2-year term as Member of the Governing Board since 2023, was re-elected. Other elected members of the Governing Board are from China, Chile, Egypt, Mongolia, Montenegro, Senegal, Serbia and Uzbekistan. COMSATS is ANSO's member since 2022. ANSO, had 77 Members from 52 countries. During the 4th GA meeting, it admitted new members at the recommendation of the Governing Board, which raised the membership to 96 Scientific Institutes/Organizations.

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria participated in the 4th ANSO General Assembly and 10th meeting of ANSO Governing Board, during which he actively participated and rendered necessary advice. He gave inputs for ANSO's future development strategy and priorities as also in the context of emerging technologies during the course of discussions among the members. Appreciating ANSO's phenomenal growth



and substantive activities, Amb. Zakaria committed to COMSATS' continued support and due role towards attaining the objectives that the two Scientific Organizations share. He reaffirmed COMSATS bringing its institutional experience, Network of Centres of Excellence, expertise and capabilities to jointly promote science, technology, innovation, and inclusive development across the Global South.

Amb. Zakaria noted that COMSATS and BRI have 24 common Member States. Moreover, three of COMSATS' Centres of Excellence (NRC-Egypt, RSS-Jordan and TUBITAK-Turkiye) are also members of ANSO. Adding to the ANSO's scholarship program, he offered five MS and PhD scholarships at COMSATS University for nominees of ANSO. Welcoming the scholarship offer which was announced among the members, the ANSO President appreciated the active contribution of



COMSATS through its collaboration and scientific activities.

The newly elected board held the 11th meeting under the newly elected Presidency of Chinese Academy of Sciences and discussed future development strategy of the organization.

Executive Director ANSO facilitated ED COMSATS' meeting with President of ANSO-Initiated Alliance on Innovative Enterprises for the Belt & Road Regions, Ms. Cui Yuting for investing in the Electric Vehicle, and indigenous technology acquired by COMSATS' technology partner AGECO under the brand name 'ECONOMIA'. The President expressed keen interest and discussed next steps to carry forward the business proposal.

The depth of COMSATS and ANSO collaboration and its benefits are manifested in numerous scientific



4th ANSO General Assembly in progress



4th ANSO General Assembly held in Beijing

and capacity building activities jointly organized by the two, significantly 10 terms of ANSO-BIDI School during 2020-2025, which trained over 650 scientists, researchers and leaders belonging to COMSATS' member countries on various topics related to Innovation, Sustainable Development and Leadership Enhancement.

### Iranian Research Organization for Science and Technology (IROST)

COMSATS' Centre of Excellence, IROST successfully holds the 38th Khwarizmi International Award and 26th Khwarizmi Youth Award in Tehran

The COMSATS Centre of Excellence in Iran, the Iranian Research Organization for Science and Technology (IROST), with support from COMSATS and other partner organizations, successfully organized the 38th Khwarizmi International Award (KIA) and the 26th Khwarizmi Youth Award (KYA) in Tehran on 17th February 2025. The ceremony was graced with the presence of Hon. President of Islamic Republic of Iran, the Iranian Minister for Science, Research and Technology, and



other prominent officials and renowned scientists. The event celebrated exceptional achievements of distinguished scientists as well as promising young researchers in the areas of health, water management, agriculture, food resources, environment, engineering, communications, and information technology.

The Khwarizmi International Award was initiated in 1987, which is Iran's most prestigious scientific award. KIA ceremony is annually held and presided over by the Hon. President of the Islamic Republic of Iran, who presents the awards to the outstanding scientists, researchers, and innovators for their groundbreaking research providing solutions to global developmental challenges. The Khwarizmi Youth Award has been recognizing exceptional young Iranian scientists/researchers, encouraging them to advance their research endeavors since 1999. These prestigious awards are named after Muhammad ibn Musa al-Khwarizmi, a renowned Iranian mathematician,

astronomer, and geographer, often regarded as the "Father of Algebra." His seminal work laid the foundations for Algebra and introduced systematic solutions to linear and quadratic equations. The KIA & KYA comprise trophy, certificate and handsome cash prize.

As part of its longstanding relationship with IROST-Iran, COMSATS has been supporting the Khwarizmi International Award since the year 2000. It is a testament of COMSATS' commitment to foster science, technology and innovation in its Member States.

This year, COMSATS presented Certificates to Mr. Sasan Mohammadi (2nd KYA laureate in the category of Mechatronics) and Dr. Parvaneh Asgarinia (3rd KIA laureate in the category of Water Management, Agriculture and Natural Resources), as per the recommendation of the grand jury. The Executive Director COMSATS' Message for 38th Khwarizmi





International Award and the 26th Khwarizmi Youth Award has been featured in the Bulletin.

## International Center for Chemical and Biological Sciences (ICCBS)

### 16th International Symposium on Natural Product Chemistry (ISNPC-16) – A Resounding Success with COMSATS Support

Supported by COMSATS, the International Symposium on Natural Product Chemistry (ISNPC-16) concluded in Karachi, on 20th February 2025. The Symposium, 16th of the series in the field of natural product sciences, was organized by International Center for Chemical and Biological Sciences (ICCBS) at its campus that enriched the learning of over 400 scientists, including 60 researchers from 29 countries. Commenced on 17th February 2025, the event was one of the largest scientific gatherings in the field of natural product sciences.



ISNPC-16 was inaugurated by Prof. Dr. Mukhtar Ahmed, Chairman of the Higher Education Commission (HEC) of Pakistan, who emphasized the role of science in serving humanity and highlighted HEC's initiatives to equip higher education institutions with cutting-edge technologies. Participants benefited from the technical sessions of the Symposium, including plenary lectures, keynote addresses, invited presentations, and poster exhibitions by young researchers showcasing their work on natural product chemistry.

COMSATS, as partner organization for the event, played its due role in fostering international collaboration and knowledge exchange. The objectives of the Symposium aligned with COMSATS' mission to promote S&T cooperation,



and resulted in signing of a number of Memorandums of Understanding (MoUs) between ICCBS and leading international institutions, further strengthening global scientific partnerships.

In his address at the concluding ceremony, the globally acclaimed scientist and Founding Chairman of HEC, Prof. Dr. Atta-ur-Rahman, lauded Pakistan's rising global research ranking and the need for increased investment in science and technology.

The session was chaired by the (then) Director ICCBS, Prof. Dr. Farzana Shaheen, who emphasized the urgent need to protect medicinal plants from overexploitation and develop plant-based drugs to combat major diseases. She reassured her Centre's support to international collaborations being the Center of Excellence of not only COMSATS, OIC and UNESCO but also the WHO Collaborating Center.

The arrangements made for holding the Symposium and hosting the foreign participants during the symposium earned words of praise by all. The symposium was viewed as an important forum fostering global scientific collaboration.

COMSATS remains committed for supporting initiatives that provide advance scientific research and promote sustainable development. The success of ISNPC-16 reflects the power of international collaboration in addressing global challenges through science and innovation.

## The World Academy of Sciences (TWAS)

### Executive Directors of COMSATS and TWAS Hold Virtual Discussions to Advance Strategic Collaboration

Following the appointment of Prof. Marcelo Knobel as Executive Director of The World Academy of Sciences (TWAS), Italy, in December 2024,



Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, and the Executive Director of TWAS held a virtual meeting on 4 March 2025 to discuss avenues for revitalizing institutional collaboration, aligning strategic priorities, and advancing joint initiatives aimed at promoting scientific innovation and sustainable development.

Ambassador Zakaria provided a comprehensive overview of the Organization's governance structure, outlining the roles and functions of its statutory bodies, including the General Meeting, the Consultative Committee, the Coordinating Council, and the Technical Advisory Committee. He also highlighted COMSATS' strategic partnerships with international and intergovernmental organizations in support of UN SDGs, as well as recent initiative, including the establishment of a nanotechnology laboratory, at the Secretariat.



A key agenda item of the meeting was the review and renewal of the longstanding Memorandum of Understanding (MoU) between COMSATS and TWAS.

Cooperation between the two organizations continued to advance throughout the year. On 27 May 2025, the Executive Directors held another virtual meeting to further discuss collaboration pathways. Prof. Knobel also participated virtually in the 3rd Meeting of COMSATS' Technical Advisory Committee (TAC), held in Jordan in October 2025, and contributed as a distinguished speaker to the Virtual High-Level Forum on Quantum Science and Technology: Strategic Pathways for the Global South on 20 August 2025, reflecting TWAS' sustained engagement with COMSATS' scientific initiatives.

Further strengthening this partnership, a joint TWAS–COMSATS conference project, developed in collaboration with the University of Trieste, secured a grant under the ANSO Conference Programme. The ANSO–COMSATS–TWAS Conference on “A Sustainable Future for All Living Species on Planet Earth” is scheduled to be held in October 2026, marking another significant milestone in the evolving collaboration among the partnering institutions.

### COMSATS and TWAS Reinforce Strategic Partnership at 17th General Conference, Brazil

COMSATS participated in the 17th General Conference and 40th Anniversary of The World Academy of Sciences

(TWAS), held from 29 September to 2 October 2025 in Rio de Janeiro.

The Executive Director shared views with the participants on the theme “Building a Sustainable Future: The Role of Science, Technology, and Innovation for Global Development.” The Conference brought together leading scientists, policymakers, and institutional leaders from across the world to deliberate on the role of science and innovation in advancing sustainable and inclusive development.

Paying tribute to Abdus Salam, the Nobel Laureate and visionary founder of both TWAS and COMSATS, both organizations are mandated to strengthen South–South cooperation, enhance scientific human capital, and promote equitable access to knowledge and innovation. Emphasis was laid on digital transformation, biotechnology and bioinformatics, sustainable agriculture, climate change, materials science, and energy transition.

TWAS plays a central role in COMSATS' institutional architecture, including its contribution to the nomination of COMSATS' Centres of Excellence and distinguished members of the Technical Advisory Committee. These shared mechanisms reflect the enduring partnership and common objective of mobilizing scientific knowledge, talent, and innovation to address development challenges in the Global South.

## Economic Cooperation Organization Science Foundation (ECOSF)

### ECOSF President Visits COMSATS Secretariat to Advance Collaboration on ECONEX 2025

On 12 March 2025, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, received Prof. Dr. Syed Komail Tayebi, President of the

Economic Cooperation Organization Science Foundation (ECOSF), at the COMSATS Secretariat to advance ongoing collaboration in science, technology, and innovation (STI).

The meeting was attended by Dr. Mehwish Qayyum Durani, Director (International Partner Organizations) and Head of the COMSATS Centre for Climate and Sustainability (CCCS).



The interaction reinforced the growing partnership between COMSATS and ECOSF, formalized through a cooperation agreement aimed at mobilizing universities, research institutions, and scientific communities across the ECO region.

The visit served as a key preparatory engagement for ECOSF's flagship event,



ECOSF President, Prof. Dr. Syed Komail Tayebi, visits COMSATS Secretariat





Ambassador Dr. Mohammad Nafees Zakaria, ED COMSATS; Prof. Dr. Syed Komail Tayebi, President ECOSF; and Dr. Mehwish Qayyum Durani, Director (IPO) / Head CCCS

the International Conference on Science, Technology, and Innovation: Catalysts for Regional Connectivity and Sustainable Development in the ECO Region (ECONEX 2025), held on 15–16 April 2025 in Islamabad.

Ambassador Dr. Zakaria highlighted the strategic importance of cross-border STI collaboration in addressing shared development challenges. He emphasized the need for strengthened cooperation frameworks to enable developing countries to harness science and innovation more effectively.

ECONEX 2025 marked a significant milestone in COMSATS–ECOSF collaboration, further consolidating shared commitment to leveraging science, technology, and innovation as drivers

of regional connectivity and sustainable development. The engagement reaffirmed the importance of sustained institutional cooperation, knowledge-sharing platforms, and capacity-building initiatives to advance inclusive and innovation-driven development across the ECO region and the broader Global South.

#### **International Conference on Science, Technology, and Innovation (ECONEX 2025)**

The Executive Director of COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, participated as a Panelist in the International Conference on Science, Technology, and Innovation (ECONEX 2025), convened under the auspices of the Economic Cooperation Organization Science Foundation (ECOSF), in

collaboration with the Higher Education Commission (HEC) of Pakistan and the ECO Secretariat, Tehran. The high-level forum, held on 17–18 April 2025 at the HEC Headquarters in Islamabad, brought together distinguished policymakers, eminent scholars, industry leaders, and regional experts from across the ECO region to deliberate on leveraging science, technology, and innovation (STI) as catalysts for sustainable development, regional connectivity, and economic integration.

The conference's inaugural session was graced by H.E. Mr. Khalid Hussain Magsi, Federal Minister for Science and Technology of Pakistan, as Chief Guest. The opening also featured Dr. Asad Majeed Khan, Secretary General of the ECO, Iran; Prof. Mehmet Akif Kireççi, President of the ECO Educational Institute, Türkiye; Prof. Abolfazl Vahedi, Vice Minister of Education, Iran; and Dr. Zia Ul-Qayyum, Executive Director, Higher Education Commission, Pakistan.

Structured across six thematic sessions, ECONEX 2025 addressed priority areas critical to the region, including: enhancing regional trade and connectivity; human capital development; building a resilient and sustainable energy future; agriculture, water, and food security; healthcare innovation and biotechnology; and fostering regional collaboration in STI.



ED COMSATS participated as a panelist in ECONEX 2025

## National Centre for Physics (NCP)

### NCP, Pakistan, with support of COMSATS, hosts the APS Satellite March Meeting

The National Centre for Physics (NCP), Pakistan, in collaboration with COMSATS and other partner organizations, hosted the American Physical Society (APS) Satellite March Meeting on March 20, 2025, in Islamabad. The Satellite March Meeting was held as part of the APS Global Physics Summit 2025, held on March 16-21, 2025, in California, USA, which is the largest physics research conference in the world, uniting 14,000 scientific community members across all disciplines of physics.



The objective of the APS Satellite March Meeting was to enhance global scientific collaboration and promote knowledge-sharing in physics, particularly in the areas of condensed matter physics and high-energy physics.

The event comprised of four technical talks, including “Spectral Study of Two Electrons in a Silicon Quantum Dot” by Dr. Bilal Tariq (NCP); “Unveiling the Hottest Secrets of the Universe” by Dr. Shahin M. Iqbal (NCP); “High-Temperature Thermoelectric Properties of Double Perovskite Oxides” by Dr. Falak Sher (Lahore University of Management Sciences); and “Understanding Extrinsic and Intrinsic Ion Migration in Halide Perovskites using Rutherford Backscattering” by Prof. Dr. Muhammad Sultan Satti (Kohsar University Murree).

The Satellite meeting held at the National Centre for Physics was attended by over 300 researchers and scholars from various scientific organizations, research institutions and universities in Pakistan.



American Physical Society (APS) Satellite March Meeting is in progress

In this regard, COMSATS Secretariat facilitated the participation of over 70 relevant scientists, researchers and students from Pakistani universities, including the COMSATS University Islamabad (CUI), Riphah International University Islamabad, and University of Engineering & Technology.

The event was broadcasted live from NCP for participants from around the world including those from COMSATS Member States and Centres of Excellence. The APS Satellite March Meeting provided a platform to the leading physicists and researchers from various institutions in order to facilitate discussions on advanced research topics and fostering international networking.

The APS Satellite March Meeting provided a platform to the leading physicists and researchers from various institutions in order to facilitate discussions on advanced research topics and fostering international networking.

### NCP, Pakistan, with support of COMSATS, hosts the International School on Physics & Applied Disciplines (ISPAD) 2025 in Islamabad

The National Centre for Physics (NCP), Pakistan, in collaboration with the International Centre for Theoretical Physics (ICTP), COMSATS and other partner organizations, hosted the International School on Physics & Applied

Disciplines (ISPAD 2025) from April 14 to 18, 2025, in Islamabad. This prestigious event, organized regularly at NCP since 2009, brought together researchers, scientists, and students to foster scientific knowledge exchange and promote international collaborations in cutting-edge physics disciplines.

As a key Collaborator of ISPAD 2025, COMSATS played a crucial role in broadening the event's reach by providing online participation facility to its 27 Member States and 25 Centres of Excellence.

The objective of ISPAD 2025 was to enhance global scientific collaboration and overview the advances in key research areas of physics, including High Energy Physics, Applications of Accelerators in Industry, and Plasma Physics. The event featured a comprehensive program comprising plenary lectures, parallel sessions, poster presentations, tutorials, and structured discussions, providing deep insights into contemporary and emerging research trends.

ISPAD 2025 had around 200 in person participants, including local and international students, researchers, and university faculty, and distinguished invited speakers.

A highlight of ISPAD 2025 was the Keynote Address delivered by Prof. Asghar Qadir, a renowned Pakistani





Group photo of participants of the International School on Physics & Applied Disciplines (ISPAD)

mathematician and cosmologist, specializing in mathematical physics and physical cosmology. His lecture provided profound insights into the Concept of Dark Matter and Dark Energy in modern physics, inspiring young researchers and fostering academic discourse.

The school included technical talks and presentations by other renowned international experts engaged in the field of Physics from around the globe. The Distinguished Speakers and lineup of international experts for ISPAD 2025 were:

- High Energy Physics:
  - Dr. Gautier Hamel de Monchenault (France),
  - Dr. Thomas Muller (Germany),
  - Dr. Urs Wiedemann (Switzerland),
  - Dr. Mingshui Chen (China),
  - Dr. Adnan Bashir (Mexico), among others.

- Applications of Accelerators in Industry:
  - Mr. Natko Skukan (IAEA),
  - Dr. Jianrong Zeng (China),
  - Dr. Hiroshi Yasuda (Japan),
  - Dr. Thomas Osipowicz (Singapore), among others.
- Plasma Physics:
  - Dr. Atusushi Fukuyama (Japan),
  - Dr. Dimitri Batani (France),
  - Dr. Stefaan Poedts (Belgium),
  - Dr. Naeem Tahir (Germany), and more.

ISPAD 2025 provided a platform to the leading physicists and researchers from various institutions in order to facilitate discussions on advanced research topics and fostering international networking. By supporting ISPAD 2025, COMSATS took forward its mission to facilitate knowledge-sharing, networking, and partnerships among its Member States and Centres of Excellence.

## International Center for Agricultural Research in the Dry Areas (ICARDA)

### COMSATS, ICARDA Begin Collaborative Efforts to advance Climate-Smart Agriculture

On April 25, 2025, COMSATS held a virtual meeting with the International Center for

Agricultural Research in the Dry Areas (ICARDA) to initiate a strategic collaboration under the theme “Advancing Climate-Smart Agriculture through Science, Technology, and Innovation.”



Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, led the meeting with Dr. Vinay Nangia, Director Research Program (ICARDA), to explore collaborative opportunities between the two organizations in promoting sustainable agricultural solutions for climate-vulnerable regions. The meeting was also attended by Dr. Mehwish Durani, Head of the COMSATS Centre for Climate and Sustainability (CCCS), COMSATS Secretariat.

Ambassador Zakaria outlined COMSATS' mandate and its growing portfolio of initiatives in climate-smart agriculture, particularly through CCCS. He emphasized the importance of South-



COMSATS and ICARDA officials during a Virtual Meeting



Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, chairing a high-level seminar during PEDRR-2025 in Islamabad

South cooperation in harnessing science, technology, and innovation for sustainable development. Dr. Nangia shared an overview of ICARDA's institutional strengths, including its global research footprint and expertise in climate-resilient agriculture and water resource management.

The participants aligned institutional priorities and identified cross-cutting areas for collaboration. Key thematic areas proposed include crop genetic improvement and genome editing using CRISPR-Cas9, precision agriculture, integrated pest management, land reclamation, and climate-data sharing.

Earlier in the year, this collaborative trajectory had been reflected in a national high-level seminar held on 20 June 2025, organized by COMSATS in cooperation with ICARDA and other partners in commemoration of World Environment Day 2025. Centered on the theme "Bridging the Climate-Adaptation Divide Across the Food-Water-Agriculture Nexus," the seminar featured remarks by ICARDA's Country Representative, Dr. Imtiaz Muhammad.

This momentum translated into concrete joint action in November 2025, when both organizations co-convened two high-level sideline events on "Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation" during the UNFCCC

30th Conference of Parties (COP30) in Belém. These engagements demonstrated the steady consolidation of the partnership and positioned the two institutions as key contributors to global dialogue on climate-smart agricultural transitions.

## National Disaster Management Authority (NDMA)

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

In May 2025, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, chaired a high-level seminar at the 2nd Pakistan Expo on Disaster Risk Reduction (PEDRR-2025), held on 7 May 2025 in Islamabad. Convened by the National Disaster Management Authority (NDMA), Government of Pakistan, the Expo served as a strategic platform for advancing national disaster risk governance, climate resilience, and technology-driven preparedness through multi-stakeholder engagement.

The event brought together senior policymakers, representatives of multilateral organizations, academic institutions, and industry leaders,

reflecting Pakistan's commitment to strengthening resilience in the face of escalating climate vulnerabilities. The Expo facilitated knowledge exchange, policy convergence, and the promotion of innovative solutions to address multi-hazard risks through collaborative and evidence-based approaches.

Ambassador Dr. Zakaria chaired the thematic session titled "Open Innovation: AI-Powered Multi-Hazard Impact-Based Forecasting and Early Warning," which featured leading experts from the National University of Sciences and Technology (NUST) and NDMA.

Ambassador Dr. Zakaria underscored the transformative potential of artificial intelligence, quantum technologies, and big data analytics in disaster preparedness and response.

COMSATS' participation in PEDRR-2025 reflected its continued commitment to advancing innovation-driven and collaborative approaches to disaster risk reduction, aligned with international frameworks including the Sendai Framework for Disaster Risk Reduction and the 2030 Agenda for Sustainable Development.

As a longstanding institutional partner of NDMA, COMSATS continues to support regional capacity-building and disaster response innovation. This collaboration is further strengthened through the







National Institute of Maritime Affairs (NIMA) formalized a strategic partnership through the signing of a Memorandum of Understanding (MoU), aimed at advancing regional collaboration in maritime sustainability, climate adaptation, and environmental stewardship. The agreement reflects a shared commitment to strengthening science- and technology-driven approaches to ocean governance and resilience-building



Memorandum of Understanding signed in 2020 between COMSATS Internet Services (CIS) and NDMA, aimed at leveraging digital technologies, including tele-health and ICT-enabled training, to enhance disaster preparedness and humanitarian response mechanisms.

## National Institute of Maritime Affairs (NIMA)

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

On 3 June 2025, COMSATS and the

across the Global South.

The MoU was signed by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and Vice Admiral Ahmed Saeed HI(M) (Retd), President of NIMA, on the sidelines of an international seminar organized by NIMA in commemoration of World Environment Day 2025. The event convened representatives from government,



academia, and the scientific community, providing a platform for dialogue on emerging environmental challenges and collaborative solutions.

The MoU establishes a comprehensive framework for cooperation across COMSATS' intergovernmental network, enabling the joint mobilization of universities, research institutions, scientific communities, and private-sector stakeholders. This integrated approach is designed to foster innovation, strengthen institutional capacities, and facilitate technology transfer in key maritime and climate-related domains.

Priority areas identified under the partnership include marine biotechnology, sustainable fisheries, oceanographic observation, maritime security, renewable ocean energy, and coastal zone management. The agreement further envisages the co-organization of policy dialogues, expert-level symposia, technical workshops, and capacity-building initiatives at regional and international levels.

This strategic partnership reaffirms the commitment of COMSATS and NIMA to promoting evidence-based policymaking, safeguarding marine ecosystems, and strengthening resilient maritime economies across the Global South.



Group photo of officials from COMSATS and NIMA following the MoU signing ceremony



Group photo of participants during the MoU signing ceremony between COMSATS and IBI International Group

## IBI International Group

### COMSATS, IBI International Group of China and Pakistan's AGECO ink MoU

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



Amb. Dr. Mohammad Nafees Zakaria



Mr. Ibrahim Munir



The MoU signing ceremony between COMSATS and the IBI, is in progress





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 (BRETIC), 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.

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 BRETIC 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 Economica, holding multiple patents and approvals from the national regulatory bodies.

## American Institute of Pakistan Studies (AIPS)

### COMSATS and AIPS Renew Agreement for Academic Cooperation in S&T and Capacity Building

COMSATS and the American Institute of Pakistan Studies (AIPS) signed a



Memorandum of Understanding (MoU) on 7th July 2025, aimed at fostering academic cooperation and institutional capacity building in S&T and emerging technologies.

The MoU was signed by the Executive Director COMSATS, Ambassador Dr. M. Nafees Zakaria, and President AIPS, Dr. Matthew A. Cook, in a ceremony witnessed by some of the representatives of Diplomatic Missions of COMSATS Members States in Islamabad as well as officers of COMSATS and AIPS.



The MoU shall enable COMSATS and AIPS to foster academic collaboration between institutions of COMSATS' founding Member State, Pakistan, and the USA. Cooperation will encompass training programs, creation of opportunities for academic placements, holding workshops and seminars on S&T and emerging technologies, exchange of information, and pooling of resources for mutual benefit.

Ambassador Zakaria recapitulated past collaboration between COMSATS and AIPS, which included academic lectures, interactive sessions and workshops. "These initiatives reflect shared commitment to academic cooperation, institutional

capacity building, and innovation", said the Executive Director. He underscored the active role being played by COMSATS to facilitate South-South and triangular cooperation in emerging fields of science and technology.

Dr. Cook expressed enthusiasm on AIPS' continued collaboration with COMSATS, particularly to serve the scholarly communities of Pakistan and the USA. He noted that AIPS and COMSATS have commonality in terms of objectives as well as affiliation with various R&D organizations and universities. Dr. Cook looked forward to impactful and mutually beneficial collaboration between the two organization.

The ceremony concluded with both sides reaffirming their shared commitment to knowledge sharing, socio-economic progress, and sustainable development.



## Welthungerhilfe (WHH)

### COMSATS and Welthungerhilfe (WHH) Enhance Strategic Collaboration for Climate and Disaster Resilience

On 22 October 2025, Mr. Mathias Mogge, Secretary General and Chief Executive Officer of Welthungerhilfe (WHH), visited the COMSATS Secretariat, marking a significant step in

strengthening institutional collaboration between the two

organizations to advance systemic resilience, food security, and climate-smart governance across the Global South.

During a comprehensive exchange, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and Mr. Mogge reaffirmed a shared commitment to integrating scientific innovation, policy coherence, and community-centered resilience mechanisms into national and regional development frameworks. Ambassador Zakaria apprised the visiting delegation of COMSATS' ongoing initiatives in electric mobility, nanotechnology for green innovation, and telehealth for enhanced rural health access, while also highlighting the work of the COMSATS Centre for Climate and Sustainability (CCCS) in advancing regional cooperation, policy



COMSATS' participation in WHH's 20-Year Commemoration in Pakistan

research, and climate diplomacy, including active engagement in UNFCCC processes and global resilience dialogues.

Mr. Mogge, outlining WHH's global portfolio in disaster preparedness, sustainable livelihoods, and food systems transformation, emphasized the importance of linking humanitarian response with long-term climate adaptation and governance reforms. The discussions converged on developing joint operational frameworks to scale climate-risk analytics, nature-based solutions, and technology-driven interventions aimed at strengthening adaptive capacity in climate-vulnerable regions.

Building on this momentum, COMSATS and WHH jointly convened a series of high-level thematic engagements during 30th Conference of the Parties (COP30), held in Belém, Brazil. These sessions brought together policymakers, financial institutions, scientists, and civil society actors to deliberate on risk-informed

investment frameworks, agroecological innovation, and resilient recovery pathways, contributing to actionable policy insights for global climate platforms.

Through these engagements, COMSATS and WHH reaffirmed their mutual resolve to advance evidence-based, inclusive, and operational resilience frameworks that strengthen national and community capacities for risk-informed planning, adaptive governance, and sustainable recovery across the Global South.

## Sustainable Development Policy Institute (SDPI)

### 28th Sustainable Development Conference, COMSATS showcases EV at the Expo

COMSATS participated in the 3rd Sustainability Investment Expo (SIE) organized alongside the 28th Sustainable Development Conference (SDC) hosted by the Sustainable Development Policy Institute (SDPI) in Islamabad from 4-7 November 2025.



The expo provided a dedicated platform for organizations to exhibit transformative solutions and foster strategic partnerships in pursuit of sustainable development goals. COMSATS' presence at expo



Ambassador Zakaria presenting COMSATS' shield to Mr. Mathias Mogge, Secretary General and Chief Executive Officer of Welthungerhilfe, during his visit to the COMSATS Secretariat





Amb. Nafees Zakaria briefing H.E. Prof. Ahsan Iqbal, Federal Minister for Planning, Development and Special Initiatives, and H.E. Dr. Musadik Malik, Federal Minister for Climate Change and Environmental Coordination, at the SDPI Exhibition.



COMSATS showcased Electric Vehicle (EV) Telehealth services at the Exhibition

underscored its proactive engagement with national and international platforms that champion evidence-based, technology-driven approaches to addressing the developmental and environmental imperatives.

At its dedicated stall, COMSATS showcased a portfolio of transformative innovations with direct relevance to Pakistan's sustainable development agenda. Chief among the exhibits were COMSATS' pioneering advancements in Electric Vehicle (EV) mobility and Telehealth solutions, two flagship areas that reflect the Commission's broader mandate to harness

emerging technologies for societal benefit.

The COMSATS stall was honoured by the visits of H.E. Prof. Ahsan Iqbal, Federal Minister for Planning, Development and Special Initiatives, and H.E. Dr. Musadik Malik, Federal Minister for Climate Change and Environmental Coordination, Pakistan. Both dignitaries were briefed on the details of the indigenously designed and developed EV, which the Ministers lauded

as a reflection of COMSATS' innovative approaches.

COMSATS stall attracted considerable interest from a broad cross-section of visitors, including academics, industry representatives, and development professionals, who expressed keen interest in the Commission's technological solutions.

## China-Pakistan Joint Research Centre on Earth Sciences (CPJRC)

### COMSATS and CPJRC Formalize MoU to Advance Climate-Resilient and Water-Secure OBOR Communities

On 27 November 2025, COMSATS and the China-Pakistan Joint Research Centre on Earth Sciences (CPJRC) formalized a strategic partnership through the signing of a Memorandum of Understanding (MoU), aimed at addressing water insecurity, land degradation, natural hazards, and climate-induced vulnerabilities across the Global South and the One Belt One Road (OBOR) region.



The MoU was signed at the COMSATS Secretariat by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and Prof. Dr. Hong



Amb. Zakaria presenting a shield on the occasion of the MoU signing ceremony



Ambassador Zakaria addressing the gathering at the MoU signing ceremony at the COMSATS Secretariat

Tianhua, Executive Director CPJRC. The ceremony was attended by representatives from Bangladesh, Morocco, Sri Lanka, Yemen, and Zimbabwe, reflecting the multilateral significance and broad regional relevance of the partnership.

Ambassador Dr. Zakaria underscored the growing urgency of water and food insecurity confronting developing countries, emphasizing that the partnership embodies the principles of South–South cooperation and a shared commitment to leveraging science, technology, and innovation for resilient and sustainable development. Prof. Dr. Hong highlighted CPJRC’s advanced capabilities in early warning systems for glacial lake outburst floods (GLOFs), seismic hazards, and landslides, noting that the collaboration would enhance cross-border research, data sharing, and hazard mitigation efforts.

The cooperation framework encompasses joint research, capacity-building,

technology exchange, and policy dialogue across priority domains including glaciology, hydrology, geospatial analytics, and climate-resilience modelling. This strategic engagement reflects a concerted effort by COMSATS and CPJRC to advance integrated, science-driven approaches to sustainable development, contributing to resilient, water-secure, and climate-adaptive societies across the Global South and OBOR corridors.

#### **COMSATS and China-Pakistan Joint Research Centre on Earth Sciences (CPJRC) Strengthen Strategic Collaboration**

Following a meeting between Prof. Hong Tianhua, Executive Director of the China–Pakistan Joint Research Centre on Earth Sciences (CPJRC), and Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, on 24 December 2025, a Memorandum of Understanding (MoU) between COMSATS and CPJRC was signed on 27 November 2025,

providing a framework for strengthening institutional collaboration. Under the MoU, the two organizations agreed to promote South–South cooperation through joint research initiatives, co-organization of capacity-building programmes, and enhanced knowledge-sharing between their respective scientific communities.

Annual Activity Calendars were reviewed, and priority areas for collaboration, particularly capacity-building programmes for COMSATS Member States in the areas of climate change adaptation, disaster risk management, and related scientific disciplines, were identified.

To build and deepen collaboration between the two institutions, CPJRC and COMSATS will be co-organizing an International Training Course on Disaster Risk Reduction (DRR) and Green Development for the China–Pakistan Economic Corridor (CPEC), to be held under the framework of the



MoU Signing Ceremony between COMSATS and CPJRC in progress





COMSATS-AGECO EV Technology Launch Ceremony at the COMSATS Secretariat

ANSO Conference Programme 2026. Preparations for this collaborative initiative are currently underway, with the training course scheduled to take place in June 2026.

## AGECO

### COMSATS and Technology Partner AGECO launch EV Technology

On 11th December 2025, COMSATS launched Electric Vehicle (EV) Technology, indigenously developed by its technology partner, AGECO. Through years of dedicated research and engineering, the EV technology, under the brand name ECONOMIA, includes

Climate Change and Environmental Coordination, was the Chief Guest of the ceremony that was held at COMSATS Secretariat. At the distinguished ceremony, EV converted rickshaws were delivered to M/S Imperial Engineering Company, marking the first commercial deployment of the technology under a recently signed Memorandum of Understanding (MoU). This conversion allows existing fuel-consuming and CO<sub>2</sub>-emitting engines to be transformed into fully electric, eco-friendly vehicles, an economical and scalable solution for accelerating Pakistan's transition toward clean transport.

The ceremony was attended by Ambassadors/High Commissioners/

of international organizations based in Pakistan also witnessed the ceremony. Sharing her thoughts, the Chief Guest stated that Pakistan is among the most climate vulnerable countries, and air pollution across Pakistan's major cities poses formidable challenge with direct bearing on health & economic activities. She appreciated COMSATS EV initiative that she hoped will positively impact population's health, environment and economy of the country. She paid tribute to the leadership of COMSATS and AGECO for this remarkable achievement.

Speaking on the occasion, the Executive Director COMSATS, Amb. Dr. M. Nafees Zakaria remarked that EVs provide



A glimpse of the launch ceremony of EV Technology

locally designed Electric Conversion Kits, enabling the retrofitting of conventional Internal Combustion Engine (ICE) vehicles.

Coordinator to the Prime Minister for

Diplomats of Ghana, Iran, Malaysia, Palestine, Syria, Somalia, Yemen and Zimbabwe. Senior officers of relevant Ministries and Departments of the Government of Pakistan, representatives of private sector, as well as leadership

solution for addressing environmental pollution of countries like Pakistan where 52.8 million metric tons of CO<sub>2</sub> is annually added to atmosphere by its transport sector and 70% of it is contributed by 32 million fuel consuming 2 wheelers. He



Visit of D-8 Secretary General-Designate Amb. Sohail Mahmood to COMSATS



Amb. Zakaria presenting COMSATS' shield to Amb. Sohail

noted that indigenous EVs can help the country reduce the import bill, result in import substitution to relieve pressure on the country's forex, improve health index and save public health expenses, generate employment, pave way for innovations and contribute towards achieving UN Sustainable Development Goals.

Mr. Aslam Azad, CEO AGECON praised the Executive Director's unwavering backing and resolve to help him achieve this milestone. He thanked Amb. Zakaria and COMSATS for the invaluable support.

The launch of retrofitted EVs is expected to create new economic opportunities, reduce expenditure on vehicle owners, and contribute to cleaner air in densely populated urban centers. COMSATS aims to expand such collaborative ventures with industry partners across its Member States, enabling wider adoption of green technologies in the Global South.

## Developing 8 Organization for Economic Cooperation (D-8)

### D-8 Secretary General-Designate Visits COMSATS to Strengthen Bilateral Cooperation in Science and Technology

On 24 December 2025, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, held a high-level meeting with Ambassador Sohail Mahmood, Secretary General-Designate of the Developing Eight Organization for Economic Cooperation (D-8), at the COMSATS Secretariat in Islamabad.

Ambassador Zakaria congratulated Ambassador Mahmood. He provided an overview of COMSATS' mandate, strategic priorities, and its contributions to advancing South-South cooperation through science, technology, and innovation. COMSATS and D-8 share six

common Member States—Bangladesh, Egypt, Iran, Nigeria, Pakistan, and Türkiye. Common membership offers opportunity to promote stronger multilateral engagement and collaborative initiatives.

Acknowledging COMSATS' sustained efforts in strengthening scientific and technological capacities across the Global South, Ambassador Mahmood expressed interest in exploring structured avenues of cooperation between D-8 and COMSATS. The potential areas of collaboration, included capacity-building, joint research, technology-driven solutions, and institutional partnerships.

Agriculture and Food Security, Information and Communication Technologies (ICTs), Climate Change and Environmental Sustainability, Energy, and Industry were identified as priority areas for cooperation.



Group Photo during the visit of D-8 Secretary General Amb. Sohail



## 4. CAPACITY-BUILDING AND INTERNATIONAL EVENTS

|                                                                                                                                                                |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <b>Webinars and Trainings</b>                                                                                                                                  | 44 |
| • Workshop on Zero Waste for Advancing Circular Economy                                                                                                        | 44 |
| • Webinar on Leveraging Technology for Better Outcomes in Maternal & Child Health                                                                              | 45 |
| • Workshop on Enhancing University-Business and R&D-SME Collaboration for Innovation and Growth                                                                | 47 |
| • Conference on Modern Magnetic Resonance Imaging (MRI): From Core Principles to AI-Driven Applications                                                        | 48 |
| • Webinar on Towards Digital Transformation: Ensuring an Equitable and Inclusive Society                                                                       | 49 |
| • 4th African Symposium on Big Data, Analytics and Machine Intelligence                                                                                        | 52 |
| • Seminar on Bridging the Climate Adaptation Divide Across the Food–Water–Agriculture Nexus                                                                    | 52 |
| • Virtual Forum on Quantum Science and Technology: Strategic Pathways for the Global South                                                                     | 54 |
| • International Training Program on Cyber Security                                                                                                             | 55 |
| • International Seminar on The Future of Energy: Innovations in Renewable and Clean Energy Technologies                                                        | 56 |
| • Workshop on Applications of Emerging Technologies and Artificial Intelligence for Advancing Science, Technology and the Sustainable Development Goals (SDGs) | 58 |
| <b>International Observances</b>                                                                                                                               | 59 |
| • Webinar on From Theory to Action: Making Circular Economy Work                                                                                               | 59 |
| • International Day of Women and Girls in Science 2025                                                                                                         | 61 |
| • World Health Day 2025                                                                                                                                        | 62 |
| • International Earth Day 2025                                                                                                                                 | 63 |

# CAPACITY-BUILDING EVENTS AND INTERNATIONAL OBSERVANCES

*Capacity-building constitutes an important aspect of COMSATS' programmes for South-South Cooperation. Events in important scientific areas and those related to SDGs are regularly held to strengthen scientific linkages; build indigenous capacities; and promote S&T as a tool for development. These events provide a useful platform to the members of the scientific community, development experts, donor/development agencies, and the decision-makers in particular from Member States, to share their views and experiences on contemporary issues of importance for S&T-led socio-economic development, as well as for achieving SDGs. Advocacy of other international agenda and issues is also done, inter alia, through observance of International Days bearing various themes.*



Chief Guest Dr. Musadik Masood Malik, Federal Minister for Climate Change and Environmental Coordination, Honourable Justice Jawad Hassan, Amb. Zakaria Nafees, along with other distinguished speakers of the event

## Webinars and Trainings

### Workshop on Zero Waste for Advancing Circular Economy (April 10, 2025)

On 10 April 2025, COMSATS, in collaboration with the Scientific and Technological Research Council of Türkiye (TÜBİTAK), co-organized a high-level online training workshop on Zero Waste, bringing together scientists, engineers, policymakers, and practitioners from across the Global South to deliberate on innovative solutions and policy frameworks for advancing circular economy transitions.

The workshop was inaugurated by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS,



H.E. Mr. Khalid Hussain Magsi

Amb. Dr. Nafees Zakaria

Dr. İsmail Doğan

and Dr. İsmail Doğan, Vice President TÜBİTAK, reflecting the longstanding institutional partnership between the two organizations in promoting science-driven sustainable development.

In a special message, H.E. Mr. Khalid Hussain Magsi, Federal Minister for

Science and Technology, Government of Pakistan, commended the joint initiative and highlighted zero waste as a governance, socio-economic, and environmental imperative.

The technical sessions featured a series of expert presentations by researchers





Workshop on Zero Waste for Advancing Circular Economy in progress

from the TÜBİTAK Marmara Research Center, covering diverse thematic areas including waste-to-resource technologies, pyrolysis for sustainable agricultural value chains, sludge monitoring and dewatering systems, AI-enabled identification of marine litter, biodiversity monitoring through molecular methods, wastewater treatment and chemical recovery, recycling of used oils, and hydrogen production through biomass gasification and electrochemical processes. These contributions collectively advanced discourse on innovative technologies supporting circular economy systems and environmental sustainability.

The workshop attracted a broad spectrum of participants from international organizations, research institutions, environmental agencies, and government bodies across COMSATS Member States, reflecting the growing global momentum toward zero waste practices.

The initiative aligned closely with Türkiye's



Amb. Dr. Nafees Zakaria addressing the participants during the workshop

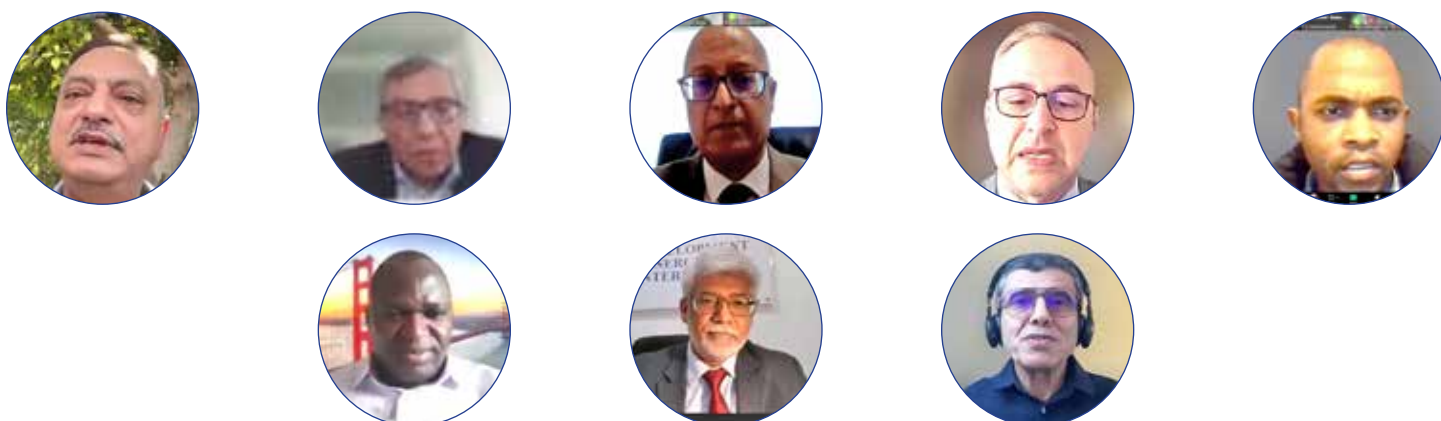
internationally recognized Zero Waste Programme, led by H.E. Emine Erdoğan, which promotes sustainable consumption and waste minimization across sectors. It also acknowledged Pakistan's "Suthra Punjab" Programme as a notable example of integrated, community-driven waste management and environmental stewardship at the provincial level.

The workshop marked a significant step in advancing COMSATS' mandate to promote South-South and Triangular Cooperation in science, technology, and innovation.

### Webinar on "Leveraging Technology for Better Outcomes in Maternal & Child Health" (April 29, 2025)

In celebration of World Health Day 2025, themed "Healthy Beginnings, Hopeful Futures," COMSATS Headquarters joined hands with ICESCO to organize an international panel discussion titled "Leveraging Technology for Better Outcomes in Maternal & Child Health" on 29th April 2025. The event underscored COMSATS' ongoing commitment to harnessing technology for equitable and improved healthcare, particularly for women and children in low-resource settings.

Bringing together leading experts, researchers, and digital health professionals from across the globe, the event provided a platform to explore cutting-edge innovations and collaborative approaches aimed at tackling maternal and child health disparities in developing countries.



Webinar on Leveraging Technology for Better Outcomes in Maternal and Child Health in progress

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, opened the session by emphasizing the transformative role of technology in narrowing health equity gaps. He reaffirmed COMSATS' dedication to fostering innovation and promoting scalable tech-driven solutions, such as artificial intelligence and mobile health applications, to improve maternal and child health outcomes.

Prof. Dr. Raheel Qamar, Head of Science and Technology Sector, ICESCO shared upcoming advancements in AI-powered predictive healthcare tools, including a genetic-data-based Alzheimer's prediction tool being launched in Pakistan. He also discussed the evolving healthcare workforce landscape in light of AI integration.

In her comments, Dr. Sofia, DG, population and DDG Health, at MoHNSRC, shared the challenges where adopting technology

could help for example for managing the huge data through technology, reaching out to providing universal access. She acknowledged the efforts of COMSATS and current leadership at the Ministry in recognizing the technology as a tool for betterment of healthcare without compromising on the need for the physical checkups.

Delivering keynote address for the event, Zulfikar Bhutta, Founding Director, Institute for Global Health and Development reflected on global progress in child mortality reduction through the Millennium Development Goals (MDGs), while pointing out the persistent inequalities fueled by geography, gender, and conflict. He advocated for the strategic use of digital tools, including telemedicine and geospatial data, to extend healthcare access to underserved populations.

During the panel discussion, Prof. Mohamed Essaaidi elaborated on how

AI can address systemic healthcare challenges, particularly in maternal and child health while Prof. Rachid Jennane, Professor of Engineering and Computer Science, University of Orléans (France) showcased AI applications for early diagnosis of knee osteoarthritis among women of reproductive age, utilizing deep learning for earlier intervention. Other panelists like Dr. Adeniyi Folayan, a Global Health Research Fellow at Toufik's World Medical Association drew attention to the critical role of mobile health (mHealth) in addressing maternal mortality, emphasizing the dire global need—given that one woman dies from childbirth-related complications every minute. Programme Manager, (Consultant), Pangaea, from Zimbabwe, Mr Enock Musungwini, introduced the Boost Health App, and developed by his organization, which delivers health education to the public, with a focus on those affected by HIV.





From Pakistan, Dr. Samina Naeem called for a National Digital Maternal, Newborn, and Child Health (MNCH) Strategy, data privacy laws, and telemedicine regulations. She emphasized investing in local research, training healthcare workers in digital tools, and fostering public-private partnerships. Dr. Muhammad Tariq shared outcomes of localizing digital health and AI for maternal and child health in Pakistan, emphasizing the importance of tailored solutions for local contexts.

The event reaffirmed COMSATS' position at the forefront of digital health innovation and collaboration, setting the stage for future partnerships to improve healthcare access and outcomes for mothers and children worldwide.

### Workshop on Enhancing University-Business and R&D-SME Collaboration for Innovation and Growth (27th May 2025)

On 27 May 2025, the Commission on Science and Technology for Sustainable Development in the South (COMSATS) convened a high-level international capacity-building workshop titled “Enhancing University–Business and R&D–SME Collaboration for Innovation and Growth” in Islamabad. The initiative aimed to strengthen linkages between academia, research institutions, and small and medium enterprises (SMEs), providing a platform for strategic dialogue, knowledge exchange, and actionable pathways to catalyze innovation ecosystems across COMSATS Member States and the wider Global South.



Workshop on Enhancing University-Business and R&D-SME Collaboration in progress

In his opening remarks, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, highlighted structural disparities in university–industry collaboration between developed and developing regions. He further underscored the critical role of governments in fostering such synergies through targeted incentives, innovation infrastructure, and coherent regulatory frameworks.

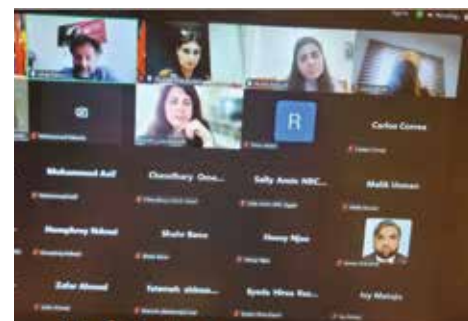
The technical sessions featured distinguished international experts, including Dr. Carlos María Correa (South Centre), Mr. Eri G. Jorge (UNIDO), Ms. Livia Adinolfi (INSME), Prof. Dr. Ufuk Türen (OSTİM Technical University), and Mr. Reza Aslani (Pardis Technology Park).

Discussions examined systemic barriers, including misaligned incentives, capacity constraints, and intellectual property challenges, while also identifying solutions such as policy-driven research alignment, simplified collaboration frameworks, and enhanced support mechanisms for SMEs.

The workshop attracted over 250

participants from national and international institutions, reflecting strong interest in advancing collaborative innovation models. The deliberations concluded with a reaffirmation of the need for sustained multi-stakeholder engagement, strengthened institutional linkages, and coordinated policy support to unlock the innovation potential of emerging economies.

This engagement reinforced COMSATS' commitment to promoting science, technology, and innovation-driven development through South–South cooperation, supporting inclusive economic growth and sustainable industrial transformation across the Global South.





Amb. Dr. M. Nafees Zakaria, ED COMSATS, and Prof. Dr. Sajid Qamar, Rector CUI, addressing the august gathering at the Conference

### Conference on 'Modern Magnetic Resonance Imaging (MRI): From Core Principles to AI-Driven Applications' (29th May 2025)

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.



Inaugural Session of the Workshop in progress





### Webinar on “Towards Digital Transformation: Ensuring an Equitable and Inclusive Society” (17th June 2025)

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 (MoIT&T), 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 Limpijumnong, 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



During his opening remarks, Amb. Dr. M. Nafees Zakaria alongwith Mr. Ajmal Anwar Awan and Mr. Irfan Hayee



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,



H.E. Shaza Fatima Khawaja  
Federal Minister for IT&T



Ambassador Dr. Mohammad Nafees Zakaria  
Executive Director COMSATS



Prof. Dr. Sukit Limpijumrong  
President of ANSO

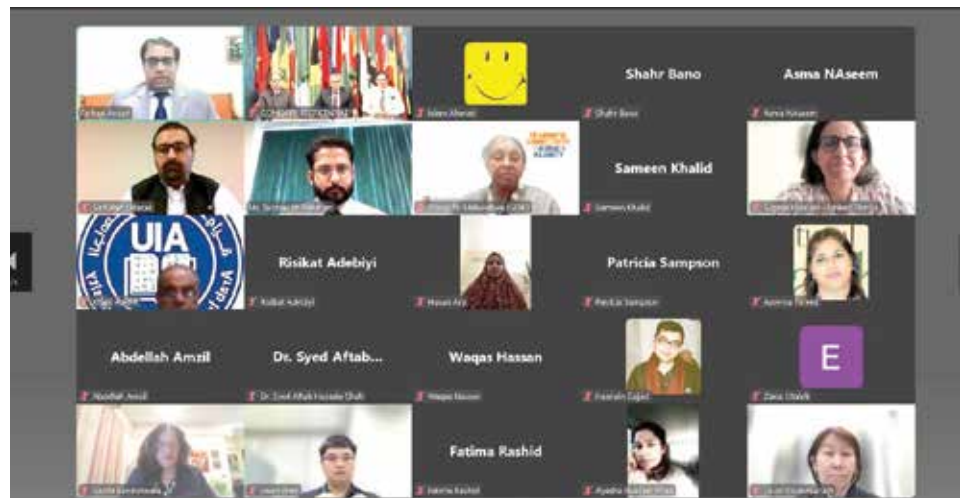




TIRDO, Tanzania, discussed how AI applications are helping to address healthcare challenges in resource-constrained environments. She highlighted ongoing efforts in Tanzania to integrate AI tools for diagnostics, patient monitoring, and healthcare system optimization, particularly for chronic disease 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, TUBITAK, 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 to 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, Analytics and Machine Intelligence (17th - 20th June 2025)

In line with its mandate to advance South-South cooperation in science, technology, and innovation, COMSATS actively collaborated in the 4th African Symposium on Big Data, Analytics and Machine Intelligence, held in conjunction with the 18th International Thematic Workshop of the TWAS Young Affiliates Network (TYAN) at the Federal University of Technology Akure (FUTA), Nigeria.

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

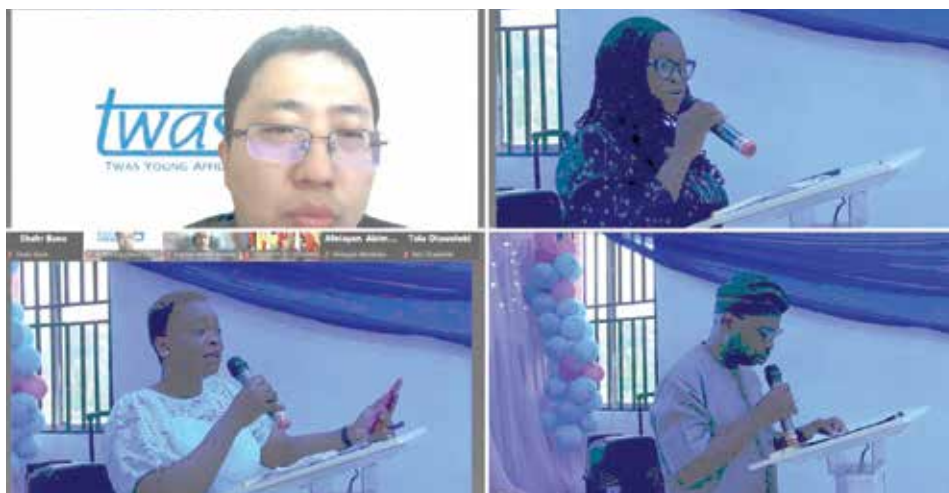
COMSATS contributed substantively to the symposium, supporting knowledge exchange, capacity-building, and collaborative innovation in emerging digital domains. The engagement provided an important platform for advancing dialogue on data-driven development and reinforcing COMSATS' commitment to fostering inclusive and technology-enabled growth across its Member States.

In his inaugural address, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, underscored the growing importance of harnessing large-scale data generated across sectors such as healthcare, financial services, climate systems, and digital commerce for informed decision-making and policy formulation.

Ambassador Zakaria further highlighted the contributions of COMSATS' Network of Centres of Excellence in deploying advanced technologies across diverse sectors, including telehealth, climate resilience, nanotechnology, and electric mobility systems.



Ambassador Dr. Mohammad Nafees Zakaria, ED COMSATS, delivering his inaugural address during the Symposium on Big Data



The symposium featured distinguished speakers from across Africa and beyond, including participants from Germany, the United Kingdom, the United States, Egypt, South Africa, and Morocco.

Ambassador Zakaria expressed appreciation to Prof. Bolanle Ojokoh of FUTA, a member of COMSATS' Technical Advisory Committee, for her instrumental role in facilitating the collaboration.

This engagement reflects COMSATS' continued efforts to strengthen international scientific cooperation, promote digital innovation, and support capacity-building initiatives that enable developing countries to effectively harness emerging technologies for sustainable development.

#### Seminar on “Bridging the Climate-Adaptation Divide Across the Food-Water-Agriculture Nexus” (20th June 2025)

In observance of World Environment Day 2025, COMSATS in collaboration with the Ministry of Climate Change and Environmental Coordination (MoCC&EC), National Disaster Management Authority (NDMA), United Nations Environment Programme (UNEP) – 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 Centre of Excellence (FACE), convened a high-level national seminar titled “Bridging the Climate-Adaptation Divide Across the Food-Water-Agriculture Nexus” on 20 June 2025 in Islamabad.





H.E. Dr. Musadik Malik



Hon. Justice Jawad Hassan



Amb. Dr. Nafees Zakaria



Lt. Gen. Inam Haider Malik



Prof. Dr. Komail Tayebi



The seminar brought together over 200 high-level participants, including senior government officials, climate scientists, development practitioners, multilateral partners, and representatives from academia, civil society, and the private sector. The presence of Ambassadors and Deputy Heads of Mission from Malaysia, Kazakhstan, Ethiopia, Sri Lanka, Yemen, Turkmenistan, Sudan, Somalia, Syria, Tunisia, and Azerbaijan reflected strong diplomatic engagement and international support for climate action.

importance of legal and institutional reforms, enhanced judicial capacity, and strengthened compliance with international climate commitments.

The thematic panel session featured senior policymakers and experts, including H.E. Ms. Romina Khurshid Alam, Coordinator to the Prime Minister on Climate Change; Lt. General Inam Haider Malik (HI-M), Chairman NDMA; Mr. Jahangir Piracha, Managing Director and CEO Fauji Fertilizer Company; Mr. Malik Amin

Aslam Khan, former Federal Minister for Climate Change; Mr. Bilal Anwar, CEO NDRMF; and Dr. Muhammad Irfan Khan, International Islamic University Islamabad.

Panelists emphasized the importance of public-private partnerships, adaptive research and development, and the integration of digital climate advisories, predictive modelling, and farmer-centered innovation systems into policy frameworks.

The Federal Minister for Climate Change and Environmental Coordination, Dr. Musadik Masood Malik, graced the occasion as Chief Guest and delivered a comprehensive address on national climate priorities. He emphasized the need for strengthening institutional capacity, addressing governance gaps, and advancing practical, results-oriented climate strategies.

Honourable Justice Jawad Hassan highlighted the judiciary's role in advancing environmental rights and climate justice. He underscored the



Technical Session of the Seminar in progress



Group photo of participants during the seminar

Heads of participating institutions, including Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS; Lt. General Inam Haider Malik (HI-M), Chairman NDMA; Prof. Dr. Seyed Komail Tayebi, President ECOSF; Mr. Bilal Anwar, CEO NDRMF; Mr. Hasan Akram, CEO FACE; Dr. Imtiaz Muhammad, Country Representative ICARDA; and Ms. Aisha Jamshed, Country Director WHH, collectively underscored the importance of science-driven diplomacy and South-South cooperation in addressing the climate crisis.

This high-level engagement reaffirmed the collective commitment of participating stakeholders to advancing multi-actor collaboration, knowledge co-production, and strategic resource mobilization, aimed at fostering climate-resilient, food-secure, and sustainable development pathways in Pakistan and across the Global South.

### Virtual Forum on Quantum Science and Technology: Strategic Pathways for the Global South (20th August 2025)

On 20 August 2025, in commemoration of the United Nations General Assembly's designation of 2025 as the International Year of Quantum Science and Technology (IYQ 2025), the COMSATS Centre

for Climate and Sustainability (CCCS) convened a Virtual High-Level Forum titled "Quantum Science and Technology: Strategic Pathways for the Global South".

The forum featured distinguished experts, including Prof. Marcelo Knobel, Executive Director of The World Academy of Sciences (TWAS); Prof. Dr. Galileo Violini, Director Emeritus, Centro Internacional



ED COMSATS delivering his keynote remarks at the Virtual Forum on Quantum Science and Technology





sustainable agriculture, and advanced industries.

technological self-reliance, and inclusive, sustainable development across the Global South.

The technical session featured

expert presentations outlining national and institutional approaches to advancing QST, with a focus on bridging the emerging quantum divide through collaborative research, open-access infrastructure, enabling policy frameworks, and youth engagement.

The forum concluded with a strong call to embed quantum capabilities within national innovation strategies, expand South-South and triangular cooperation, and promote youth-led scientific engagement. The deliberations underscored that quantum technologies should be advanced as a global public good, contributing to scientific progress,

### International Training Program on Cyber Security (25th September 2025)

COMSATS, in collaboration with its technology partner, KhasTech Solutions (KTS), has launched Certified Information Systems Security Professional (CISSP) Certification Bootcamp, a comprehensive online training program, particularly for young professionals, aimed at creating a generation of Cyber Security Experts, on September 25, 2025.

The 8-week course of CISSP is the first of a series of training courses under COMSATS program for skill development. Over 140 cyber security professionals including IT professionals and Government Officers, from 16 countries viz. Ghana,

de Física (Colombia); Prof. Dr. Zafer Gedik, Sabancı University (Türkiye); Prof. Dr. Özgür E. Müstecaplıoğlu, Koç University (Türkiye); and Dr. Hamidreza Mohammadi Khoshoei, University of Isfahan (Iran).

The engagement provided a strategic platform to examine the transformative potential of quantum science and technology (QST) in addressing critical global challenges, including climate resilience, food and water security, and inclusive economic growth.

In keynote remarks, Ambassador Dr. Mohammad Nafees Zakaria, emphasized that quantum technologies represent a frontier of scientific discovery, national competitiveness, and technological sovereignty. Drawing on the legacy of Nobel Laureate Prof. Abdus Salam, he reaffirmed that science remains a shared heritage of humankind and emphasized the need for the Global South to actively shape the emerging quantum ecosystem.

Prof. Marcelo Knobel emphasized that quantum technologies constitute a collective global enterprise with far-reaching implications for healthcare,



Inaugural Session of the International Training Program on Cyber Security held at the COMSATS Secretariat, Islamabad



Inaugural Session of the International Training Program on Cyber Security in Progress



Iran, Jamaica, Jordan, Kazakhstan, Morocco, Nigeria, Pakistan, Palestine, Somalia, Sudan, Syria, Tanzania, Türkiye, Turkmenistan, and Yemen, have been enrolled for the training.

The inaugural ceremony was attended by Ambassadors and diplomats of COMSATS member states in Islamabad. The representatives of COMSATS Focal Points and Centres of Excellence, from across Asia, Africa, Middle East, and Latin America as also Partner organizations' Representatives and registered trainees participated, online.

Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, highlighted the importance of the course. He stated that cybersecurity is a critical domain for economic stability and national security as the digital transactions, governance and communication increasingly rely on secure platforms. Amb. Zakaria asserted that building expertise in this field will not only create career opportunities but also safeguard our collective digital future.

He expressed gratitude to COMSATS' Focal Points, Centres of Excellence, and diplomats for supporting this initiative. He appreciated COMSATS' meaningful collaboration with the KhasTech Solutions.

Speaking on the occasion, CEO KhasTech Solutions, Dr. Ashraf Masood, shared that training covered key domains from Security Architecture to Risk Management, preparing participants for the globally recognized ISC2 certification. Dr. Masood expressed satisfaction that all trainers conducting the sessions are themselves ISC2-certified professionals, ensuring the highest standard of instruction and mentorship.

The Ambassadors lauded COMSATS for launching a high-impact capacity-building program aiming to enhance technical competencies and employment prospects

across the member countries, in particular, and developing countries, in general. They considered it a highly valuable and timely initiative.

The training courses lined up covered Cybersecurity, Occupational Safety, Project Management, Risk & Information Systems Control, and Environmental Management Systems.

### International Seminar on "The Future of Energy: Innovations in Renewable and Clean Energy Technologies" (30th September 2025)

COMSATS, in collaboration with a number of national and international partner organizations, held international Seminar on The Future of Energy: Innovations in Renewable and Clean Energy Technologies. H.E. Sardar Awais Ahmed Khan Leghari, Federal Minister for Energy, Government of Pakistan,



ED COMSATS presenting shield to the Chief Guest of the International Seminar, H.E. Sardar Awais Ahmed Khan Leghari, Federal Minister for Energy, Pakistan





Inaugural Session of the Seminar



H.E. Sardar Awais Ahmed Khan Leghari with the distinguished participants of the event

graced the inaugural ceremony of the event, as Chief Guest, held at COMSATS University Islamabad (CUI). Ambassadors and diplomats of Palestine, Philippines, Somalia, Syria, Sudan, and Zimbabwe also attended the inauguration.

The Federal Minister noted that although Pakistan contributes less than 1% of global emissions, it ranks among the most climate-vulnerable nations. “Harnessing our abundant solar, wind, and hydro potential is a national priority for energy self-sufficiency and sustainability,” he said.

He outlined the Government’s reforms, including stronger governance through independent boards in distribution companies, steps toward privatization for efficiency, and digitization with smart and advanced metering.

He added that infrastructure alone is not enough; smart solutions, advanced forecasting, storage, and digital integration are also required. To this end, the Power Planning and Monitoring Company (PPMC) has been established to support evidence-based decision-making.

Pakistan is committed to deriving 60% of its electricity from clean and renewable sources by 2030. He remarked: “our grid carries 2,000 MW of wind, 800 MW of solar, and over 10,000 MW of hydropower. Distributed generation, particularly net metering, adds nearly 7,000 MW more, underscoring our steady transition to a sustainable energy future.”

He expressed gratitude to the Executive Director COMSATS, Ambassador Dr. M. Nafees Zakaria, the Rector CUI, Prof. Dr. Sajid Qamar, and all of the collaborating institutions for organizing the event bringing together a diverse and distinguished audience. He commended COMSATS’ initiatives and reaffirmed the Government of Pakistan’s full support for the organization’s mission.

The Executive Director COMSATS highlighted that 15 collaborators from COMSATS Member states and International Partner organizations was a manifestation of the importance attached to Renewable Energy Technologies. He viewed energy security as a cornerstone of sustainable development and therefore called for ensuring access to reliable, affordable, and clean energy, as enshrined in SDG-7. He considered it essential to integrate digital technologies in energy systems. Ambassador Zakaria highlighted COMSATS’ initiatives to promote clean energy, particularly the development of indigenous Electric Vehicle (EV). He proudly shared that COMSATS Tech Partner has developed EV technology indigenously.

Prof. Seyed Komail Tayebi, President ECO Science Foundation, Prof. Liu Weidong, Executive Director ANSO, and Prof. Dr. Junaid Mughal, COMSATS University Islamabad delivered remarks during the inaugural session. They highlighted the significance of renewable and clean energy technologies and expressed pleasure on this collaboration. ED ANSO highlighted the ongoing activities of his organization, including scholarships, fellowships, collaborative R&D and capacity-building.

He informed that ANSO is promoting international cooperation in S&T with support of its 78 member institutions. He noted that ANSO and COMSATS have common mandate and therefore unlimited opportunities of cooperation. He appreciated COMSATS programs and initiatives.

The seminar included four technical sessions during which 15 speakers from China, Iran, Morocco, Pakistan, Sri Lanka, Syria, Turkiye, and USA delivered talks on latest trends and futuristic technologies in renewable and clean energy, integration of digital technologies in energy systems, and policy interventions to promote clean energy adoption. They explore cutting-edge topics, inter alia, related to solar power, wind energy, biofuels, tidal energy, energy storage breakthroughs, and AI-driven energy systems and smart grids.

The event attracted over 70 in-person and

80 online participants. These included scientists, researchers, policy makers, faculty members and students from Bangladesh, China, Indonesia, Jamaica, Morocco, Nigeria, Pakistan, Palestine, Sri Lanka, Sudan, Syria, Türkiye, United States, and Zimbabwe.

### Workshop on "Applications of Emerging Technologies and Artificial Intelligence for Advancing Science, Technology and the Sustainable Development Goals (SDGs)" (15th October 2025)

COMSATS, in partnership with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), the Royal Scientific Society (RSS), and the Princess Sumaya University for Technology (PSUT), convened a high-level international training workshop titled "Applications of Emerging Technologies

and Artificial Intelligence for Advancing Science, Technology and the Sustainable Development Goals (SDGs)" in Amman, Jordan.

The event brought together distinguished experts, policymakers, and academics from across COMSATS and ICESCO Member States, representing diverse sectors including healthcare, industry, climate resilience, and digital governance. It served as a strategic platform for advancing artificial intelligence (AI) as a transformative enabler of sustainable development and for strengthening collaboration among COMSATS' Network of Centres of Excellence.

Prof. Dr. Wejdan Abu El-Haija, President of PSUT, commended the collaborative initiative and reaffirmed Jordan's commitment to fostering an enabling ecosystem for AI innovation and digital transformation. Ambassador Dr. Mohammad Nafees Zakaria, Executive



Panelists of the Workshop on Applications of Emerging Technologies and AI





Director COMSATS, contextualized the dialogue within the global AI landscape, emphasizing that developing countries must prioritize indigenous research capacity, human capital development, and context-driven innovation to equitably harness the opportunities of the Fourth Industrial Revolution.

Representing ICESCO, Dr. Adel Smeda underscored the importance of ensuring that AI-driven transformation remains

inclusive, equitable, and aligned with human-centered development principles.

The technical sessions featured expert presentations spanning key domains, including biomedical sciences, industrial systems, energy optimization, climate modelling, natural resource management, and AI governance.

The workshop was attended by over 100 participants, both in-person and virtually,

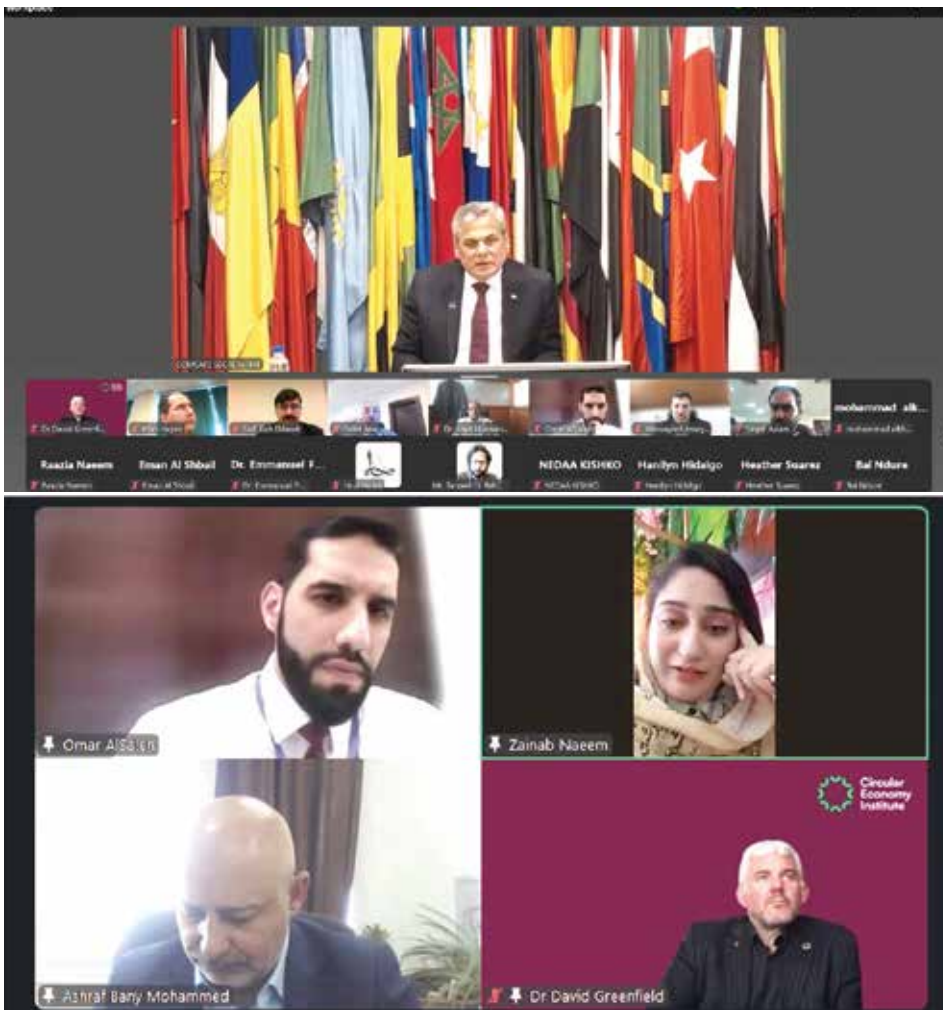
from COMSATS and ICESCO Member States, as well as partner institutions. The engagement reaffirmed COMSATS' commitment to advancing South-South cooperation in science, technology, and innovation, while promoting the integration of emerging technologies into sustainable development pathways aligned with the 2030 Agenda.

## International Observances

### Webinar on "From Theory to Action: Making Circular Economy Work" (13th November 2025)

COMSATS, in collaboration with its Centre of Excellence in Jordan, the Royal Scientific Society (RSS), and the Circular Economy Club (CEC) Jordan, organized an international webinar entitled, 'From Theory to Action: Making Circular Economy Work.' The event held on 13th November 2025, in observance of Circular Economy Week 2025, which aims to promote the concept of a closed-loop economy, support sustainable business models, and foster collaboration among stakeholders. The webinar brought together experts, policymakers, and practitioners to translate circular economy principles into actionable strategies, aimed at creating common language, and enhance cross-border open discussion and cooperation among local and international participants on advancing Circular solutions through policy, industry, entrepreneurship and academia.

The webinar demonstrated a strong global appeal, by attracting more than 130 participants across the globe. The event showcased a remarkable diversity of perspectives, with representation from 22 countries across four continents, including Bangladesh, China, Egypt, Jordan, Nigeria, Pakistan, Sri Lanka, the United Kingdom, and the United States, among others. The event also stood out for its commitment to gender inclusivity, with 51% female participants, fostering a balanced and representative dialogue on sustainable



development.

The opening remarks were given by Vice President of Royal Scientific Society (RSS), Eng. Rafat Assi; Executive Director of COMSATS, Amb. Dr. M. Nafees Zakaria; and the Vice President of the Circular Economy Institute (CEI), Dr. David Greenfield at the inauguration.

In his remarks, Eng. Rafat Assi highlighted the partnership as part of Circular Cities Week 2025, a global initiative to advance sustainable societies. He emphasized RSS's pride in hosting CEC Jordan as a national and regional hub for circular economy knowledge and innovation, stating that circularity is both an environmental necessity and an economic opportunity. He also announced a significant milestone: the approval of Jordan's first-ever National

Circular Economy Roadmap by the Ministry of Environment and Ministry of Trade, setting a clear direction for a future-proof economy.

The Executive Director COMSATS, in his address, emphasized the critical need to move away from the unsustainable linear model of 'take, make, and dispose' towards a regenerative circular framework. He highlighted that this transition is vital for decoupling economic growth from resource depletion, mitigating climate change, and creating new green economic opportunities. He also outlined COMSATS' commitment through initiatives like the AGECO project for retrofitting vehicles to electric, which aligns with circular principles by conserving resources and reducing emissions.

Dr. David Greenfield presented the Circular Economy Institute as a global network for professionals, praising CEC Jordan as its first country member. He provided a global perspective, illustrating the rapid growth of circular economy roadmaps from just four in 2016 to a global momentum today. He stressed that systems thinking is imperative, as circular economy applicability varies by region based on material flows and existing systems. He highlighted that most roadmaps focus on construction, plastics, food, and electronics, and emphasized the need for policy levers and champions to drive the movement forward.

A keynote talk was delivered by Eng. Omar AlSaleh, Senior Circular Economy & Sustainability Expert at RSS and Founder of CEC Jordan, who set the stage for the technical discussions by explaining Circular Economy Facts, Its Interventions and Circular Economy Potential as a Future.

This was followed by an expert panel discussion on the theme "A Roadmap to Circular Economy," moderated by Eng. AlSaleh. The panel featured a multidisciplinary group of distinguished international experts who provided diverse, actionable insights:

Dr. Ashraf Bany Mohammed (Board Member, ISSF; University of Jordan) addressed the critical gap between green/circular concepts and viable business models. Highlighting that less than 5% of startups in the MENA region are environmentally focused, he stressed the need for circular startups to develop strong, revenue-generating business models to attract investment. He proposed two key solutions: creating cross-border green financial instruments and tax incentives to de-risk and support circular ventures, and establishing specialized international clusters to demonstrate the value and scale of the circular industry.

Dr. Zainab Naeem (Associate Research Fellow, SDPI, Pakistan) provided a





perspective from the Global South, asserting that industries in developing countries are willing to transition to circular, low-carbon development, often driven by multinational corporations' ESG commitments. She illustrated this with examples of local SMEs being supported by MNCs to upcycle waste into valuable products. A major part of her discussion focused on bridging the gap between academia and industry. She called for a shift from academia working for industry to working with industry, through co-creation, joint innovation labs, and research anchored in local, affordable solutions. She strongly advocated for enhanced South-South cooperation, proposing "circularity corridors" for exchanging recycled goods and technology, enabling the Global South to unite and lead in setting the rules for the circular economy.

The discussions pinpointed several key priorities for moving beyond the theoretical framework and truly operationalizing the circular economy including the evolution from the classic 3R framework to a more comprehensive 6R model Reduce, Reuse, Recycle, Redesign, Remanufacture, and Recover. The integration of digital technologies such as Artificial Intelligence, IoT, and Blockchain was identified as a key enabler for creating transparent supply chains and intelligent

resource management systems. The compelling economic and environmental evidence was also presented, showcasing the model's potential to significantly reduce emissions, conserve water and energy, and generate millions of jobs globally.

The webinar successfully provided a platform for knowledge-sharing and fostered a common language to enhance cross-border cooperation. It reinforced COMSATS' dedication to leveraging science, technology, and innovation for achieving the Sustainable Development Goals (SDGs), particularly SDG-9

(Industry, Innovation and Infrastructure), SDG-11 (Sustainable Cities and Communities), SDG-12 (Responsible Consumption and Production), and SDG-13 (Climate Action).

## International Day of Women and Girls in Science 2025

On 11 February 2025, COMSATS commemorated the 10th Anniversary of the International Day of Women and Girls in Science (IDWGS) through a high-level webinar themed "Unpacking STEM Careers: Her Voice in Science."

In his opening remarks, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, reaffirmed the organization's commitment to advancing gender equality in science and technology. He emphasized that sustainable development is intrinsically linked to the full participation of women in STEM and highlighted COMSATS' initiatives, including the Telehealth Programme and the Centre for Climate and Sustainability (CCCS), as examples of women's leadership in delivering impactful scientific solutions.

The event featured keynote contributions from H.E. Ms. Shaza Fatima Khawaja, Minister of State for IT and





Telecommunications, Pakistan; Prof. Dr. Quarraisha Abdool Karim, President of The World Academy of Sciences (TWAS); and Ms. Aban Marker Kabraji, Senior Regional Advisor for Climate and Environment, UNEP Asia-Pacific.

Prof. Abdool Karim emphasized the legacy of Prof. Abdus Salam and TWAS' commitment to advancing scientific excellence and gender equity, highlighting ongoing investments in capacity-building, leadership development, and global scientific collaboration. Ms. Kabraji addressed the intersection of gender, science, and climate resilience, underscoring the role of women as key agents of change and advocating for enabling policies, mentorship frameworks, and inclusive institutional environments.

A dedicated panel discussion featured leading scientists and academicians from COMSATS and partner institutions, including representatives from Jordan, Bangladesh, Türkiye, and Malaysia. The panel examined structural challenges such as limited workforce participation, societal barriers, and institutional constraints, while identifying practical solutions including mentorship programmes, policy reforms, workplace flexibility, and

enhanced representation of women in leadership roles.

The deliberations concluded with key recommendations focusing on strengthening gender-inclusive policies, expanding STEM education and capacity-building initiatives, bridging the digital divide, and fostering international partnerships to advance gender-responsive innovation. The engagement reinforced the importance of collective action to ensure that women are not only participants but leaders in shaping the future of science, technology, and innovation.

This observance reaffirmed COMSATS' commitment to promoting inclusive scientific ecosystems and advancing gender equality as a central pillar of sustainable development across the Global South.

## World Health Day 2025

### 4-Day Telehealth Medical Camp in Gokina Medical Camp

In line with the global theme "Healthy Beginnings, Hopeful Futures", to commemorate the World health day 2025, COMSATS in collaboration

with the Ministry of National Health Services, Regulations & Coordination (MoNHSR&C) and the District Health Office (DHO) Islamabad, organized a four-day Telehealth Medical Camp from April 14–17, 2025, at the Basic Health Unit (BHU) in Gokina, a remote village in the Margalla Hills region, Islamabad.

This impactful initiative provided free teleconsultations to over 550 patients across various specialties including General Medicine, Pediatrics, Gynecology, and Dermatology, and aimed to demonstrate how tech-enabled healthcare access gap can be bridged in rural areas.

Gokina has long faced challenges in accessing reliable healthcare due to its remote location and limited infrastructure in the middle of the hills. This camp also marked the revival of Telehealth services in the region, which provided by COMSATS in the area, however, were discontinued in 2020 on the premise to continue through ICT administration's own resources. Recent engagement with MoNHSR&C led to the collaborative decision to restart services at Gokina, beginning with a medical camp on World Health Day. The Ministry directed DHO Islamabad to coordinate efforts with COMSATS for implementation, laying the groundwork for future permanent Telehealth deployment in the region.

COMSATS conducted technical assessment to evaluate available resources and carried out training of the staff from the DHO at the COMSATS Telehealth Resource Centre in Islamabad to effectively use the Telehealth system.

During the camp, the BHU was transformed into an operational Telehealth unit with separate rooms designated for registration, teleconsultation, dispensary, and ultrasound support. Teleconsultations were carried out through secure video links between patients at BHU Gokina and doctors stationed at the COMSATS Telehealth Resource Centre in Islamabad.





A custom-built Patient Information Management System (ComSoft) was used to ensure secure handling of patient data, prescriptions, and follow-up records.

### Impact and Reach

Over the four days, the camp provided:

- 509 documented consultations, with additional patients seen manually due

to system overload.

- Free diagnostic assessments and medicines.
- Emergency care for critical cases, including vasovagal syncope and a COPD patient, both of whom were stabilized and referred for further treatment.

### High-Level Visit and Endorsement

On April 15, Mr. Mirza Nasir ud Din Mashood Ahmad, Special Secretary of MoNHSR&C, visited the camp along with the DHO Islamabad. They were joined virtually by Amb. Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, who highlighted the organization's ongoing commitment to Telehealth services across Pakistan. The Special Secretary praised the setup and recommended the establishment of a permanent Telemedicine clinic at BHU Gokina.

The Telehealth Medical Camp at Gokina demonstrated COMSATS' commitment to bridging healthcare gaps using digital innovation. It stands as a scalable model for remote health service delivery and highlights the importance of multi sectoral collaboration in achieving equitable health access across Pakistan.

### International Earth Day 2025

#### COMSATS Commemorates International Mother Earth Day 2025 (April 22, 2025)

On 22 April 2025, COMSATS commemorated International Mother Earth Day, reaffirming its institutional commitment to ecological sustainability and environmental stewardship.

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, led a symbolic tree plantation ceremony at the COMSATS Secretariat in Islamabad, highlighting the importance of fostering environmental consciousness and mainstreaming sustainable practices across all levels of society.





Tree Plantation Ceremony at the COMSATS Secretariat on the Occasion of International Mother Earth Day 2025

Addressing COMSATS officials, Ambassador Dr. Zakaria emphasized that meaningful environmental transformation must be grounded in individual responsibility, reinforced through collective civic engagement and institutional coordination.

Aligned with the global theme “Our Power, Our Planet,” COMSATS continues to advance targeted initiatives aimed at strengthening climate resilience and sustainable development pathways.

Demonstrating its focus on indigenous innovation and practical solutions, COMSATS, in partnership with AGECO, has developed locally manufactured retrofit kits for converting internal combustion engine (ICE) vehicles into electric vehicles (EVs), contributing to the transition toward low-carbon transport systems. Further reinforcing its commitment to clean energy, COMSATS has entered into a formal agreement with Foundation Solar Energy (Pvt.) Limited (FSEL) for the installation of a solar power system at the COMSATS Technology

Park, marking a significant step toward renewable energy integration.

COMSATS’ climate action agenda, led by its flagship COMSATS Centre for Climate and Sustainability (CCCS), reflects a comprehensive and forward-looking approach to addressing environmental challenges across the Global South. Through the promotion of science- and technology-based solutions, and by strengthening South–South and Triangular Cooperation, COMSATS continues to contribute to building a more sustainable, equitable, and climate-resilient future.





## 5. PARTICIPATION IN IMPORTANT FORA AND MEETINGS

|                                                                                                                                 |    |
|---------------------------------------------------------------------------------------------------------------------------------|----|
| • COMSATS at COP30                                                                                                              | 66 |
| • COMSATS Sideline Events during COP30                                                                                          | 67 |
| - Scaling-up Agroecology Initiatives for Net-Zero Pathways in the Global South                                                  | 67 |
| - Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation (Pakistan's Pavilion) | 68 |
| - Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation (Thailand Pavilion)   | 69 |
| - Bridging Climate Finance Gaps: Practical Approaches for Developing Countries                                                  | 71 |
| - Beyond Crisis Response: Cross-Sectoral Approaches for Disaster Risk Reduction, Food Security and Resilient Recovery           | 72 |
| - Pathways to Net-Zero Through South-South Synergies: Climate-Resilient Technologies, Capacities, and Cultural Anchors          | 73 |

## PARTICIPATION IN IMPORTANT FORA AND MEETINGS

*Events and organizational meetings of partner and potential partner organizations are utilized as means for aiding efforts for joint work on regional and international development. Based on commonalities of mandates with partner organizations, reciprocal representation in statutory meetings and capacity-building events are encouraged as good networking opportunity. These help garner mutual support, explore avenues of cooperation, and start and foster joint initiatives.*



Group Photo of the Panelists of the Dialogue on “Bridging Climate Finance Gaps: Practical Approaches for Developing Countries” at COP30

### COMSATS at COP30

COMSATS maintained a robust and visible presence at COP30, held from 10–21 November 2025 in Belém, Brazil, through a comprehensive programme of high-level engagements spearheaded by the COMSATS Centre for Climate and Sustainability (CCCS), which served as the Secretariat’s principal platform for coordinating its participation, strategic partnerships, and substantive contributions to the Conference.

Multidisciplinary thematic activities were organised in collaboration with Islamic World Educational, Scientific and Cultural Organization (ICESCO), Food Security and Agriculture Centre of Excellence (FACE–FFC), Global Alliance for a Sustainable Planet (GASP), Welthungerhilfe (WHH), ICARDA, Gulf Organization for Research and Development (GORD), Climate Reality Project (Indonesia), and Union for the Mediterranean (UfM), among other



stakeholders. These alliances enabled COMSATS, through CCCS, to embed its science-driven priorities within high-level dialogues held across the UNFCCC Pavilion, the Food and Agriculture Pavilion, the Pakistan Pavilion, the GORD Pavilion, and the GCC Climate Action Hub Pavilion.

Acting as COMSATS’ dedicated coordination and knowledge platform on climate and sustainability, CCCS led the conceptualization, organization, and implementation of a broad portfolio of technical sessions, policy dialogues, and partnership engagements throughout COP30. In partnership with these organizations, CCCS hosted and co-





organized sessions spanning agroecology, regenerative agriculture, climate-resilient technologies, nature-positive systems, public climate finance, and cross-sectoral disaster governance. Through these collaborations, CCCS facilitated interdisciplinary exchanges involving senior policymakers, scientific leaders, private-sector innovators, humanitarian organizations, and youth networks, thereby strengthening multi-actor coalitions essential for operationalizing global climate commitments.

A notable highlight of COP30 was COMSATS' role as a co-organizer of an official UNFCCC COP side event, competitively selected under the UNFCCC Call for Proposals and hosted in the designated UNFCCC Side Event Room. This event, jointly convened with ICESCO and the UfM, positioned COMSATS at the forefront of global discourse on net-zero pathways, South-South synergies, climate-resilient technologies, and culturally anchored adaptation systems.

The successful selection of these side event under the highly competitive UNFCCC process further reflected the growing recognition of COMSATS-CCCS as credible contributors to international climate policy dialogue and science-based solutions for sustainable development.

By mobilizing institutional partners across multiple pavilions, COMSATS, through the strategic coordination of CCCS, contributed meaningfully to COP30's broader agenda on the Global Goal on Adaptation, Loss and Damage, sustainable food and water systems, and the acceleration of net-zero transitions in climate-vulnerable regions. Beyond scientific and technological innovations, CCCS facilitated institutional networking, promoted South-South knowledge exchange, and forged new collaborative linkages with international organizations, research institutions, development partners, and climate stakeholders, laying the foundation for future joint initiatives. The Commission's presence at COP30



thus reflected a coherent and strategically aligned effort to strengthen global climate governance through South-South and Triangular cooperation, evidence-informed policymaking, and cross-sectoral resilience-building architectures.

## COMSATS Sideline Events during COP30

### “Scaling-up Agroecology Initiatives for Net-Zero Pathways in the Global South” – Food and Agriculture Pavilion, Blue Zone - November 12, 2025

At the Food and Agriculture Pavilion, CCCS, in partnership with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), Global Alliance for a Sustainable Planet (GASP); the AOB Group (ICESCO); and the Food Security and Agriculture Centre of Excellence (FACE), Pakistan, convened a high-level policy dialogue titled “Scaling-up Agroecology Initiatives for Net-Zero Pathways in the Global South”. The event served as a critical platform for advancing science-driven, equity-oriented agroecological transitions within climate-vulnerable regions.

Moderated by Mr. Hafid Boutaleb, CEO of AOB Group, the high-level panel convened distinguished experts including Mr. Amine Alaoui (Chief Sustainability Officer, OCP Nutricrops); Ms. Caroline Chelsea Manyama (Environmental Sustainability Consultant and Project Manager, Success Hands); Mr. Satya Tripathi (Secretary General, GASP); and Dr. Milena Rosenfield (Member, Brazilian Network for Ecological Restoration – REBRE). The dialogue examined science-validated methodologies and policy-relevant strategies for mainstreaming agroecology as a cornerstone of net-zero transitions within global food and agricultural systems.

Panelists collectively highlighted that agroecology must be scaled through integrated nutrient-management regimes,



climate-intelligent soil restoration, and strengthened producer cooperatives that enhance both market access and ecological stewardship. Mr. Amine Alaoui emphasized the role of data-driven fertilizer optimization, regenerative soil nutrition, and landscape-level interventions in reducing agricultural emissions while enhancing productivity and farmer incomes. Mr. Satya Tripathi underscored the urgency of reorienting finance flows, particularly through blended and nature-positive investments, to unlock large-scale capital for community-centered agroecological transformation. Dr. Milena Rosenfield stressed that ecological restoration, biodiversity corridors, and participatory landscape governance serve as foundational pillars for resilient agri-food systems, especially in tropical and subtropical ecosystems facing rapid degradation.

During a substantive audience exchange concerning sustainable meat consumption, Ms. Caroline Chelsea Manyama stressed that the debate must be contextualized within frameworks of equity, culture, and rural livelihoods across the Global South. She clarified that the objective is not the elimination of livestock products, but rather the transformation of livestock systems to become climate-smart, regenerative, and socio-economically inclusive. She elaborated on agroecological interventions, such as rotational grazing models, silvopastoral configurations, improved feed-conversion efficiency, and integrated crop-livestock systems, that demonstrably reduce emissions while enhancing biodiversity, soil functionality, and farmer resilience. She further emphasized that responsible consumption patterns, reduction of food waste, and

strengthened support for sustainably produced local commodities can reshape demand without compromising vulnerable communities. Ms. Manyama concluded that the transition toward sustainable meat consumption must be framed as a just transition, ensuring that climate mitigation objectives remain aligned with food security imperatives, cultural practices, and the socio-economic realities of smallholder producers.

### **“Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation” - Pakistan’s Pavilion, Blue Zone - November 12, 2025**

CCCS, in collaboration with the Government of Pakistan, ICESCO, ICARDA, WHH-Pakistan, and FACE-FFC, convened a high-level panel discussion at the Pakistan Pavilion on “Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation.” Moderated by Mr. Hamid Majid Abbasi, Senior Executive FACE-FFC, the discussion brought together leading scientists and development practitioners, including Dr. Augusto Becerra of ICARDA, Ms. Aisha Jamshed of WHH-Pakistan, Mr. Dan Morrell of Balance, Dr. Sohail Malik of CRCC Pakistan, and Dr. El. Khalil Cherif of the University of Lisboa. The session reviewed the

### Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation

**Date:** Wednesday, 12 November 2025  
**Time:** 14:30 - 15:30 (GMT-3, Belém, Brazil Time)  
**Location:** Pakistan Pavilion, Blue Zone

**Moderator**

**Mr. Hamid Majid Abbasi**  
Senior Executive  
FACE-FFC, Pakistan

**Panelists**

**Dr. Augusto Becerra**  
Dir. Director  
General Research  
ICARDA

**Ms. Aisha Jamshed**  
Country Director  
Wellthungerhilfe (WHH)  
Pakistan

**Mr. Dan Morrell**  
Chief Executive Officer  
Balance

**Dr. Sohail Malik**  
Technical Team Lead  
CRCC, Pakistan

**Dr. El. Khalil Cherif**  
Senior Researcher  
Institute for Sciences and  
Biosciences, University of Lisboa  
Portugal

**Amb. Dr. M. Nafees Zakaria**  
Executive Director  
COMSATS

**Dr. Muhammad Sharif**  
Advisor, Science and Technology  
ICESCO







## “Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation” – Thailand Pavilion, Blue Zone - November 13, 2025

At the Thailand Pavilion, COMSATS, in collaboration with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), Morocco; the International Centre for Agricultural Research in the Dry Areas (ICARDA); and the Food Security and Agriculture Centre of Excellence (FACE), Pakistan, convened a pivotal dialogue on “Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation.” The session served as a strategic platform for interrogating the scientific, technological, and governance prerequisites for scaling climate-resilient, low-emission agri-food systems across developing regions.

Moderated by Mr. Hamid Majid Abbasi, Senior Executive FACE-FFC, the expert panel brought together Dr. Rabeab Aloui, Director BNCheck; Dr. Sohail Malik, Team Lead Climate Resource

scientific, technological, and institutional prerequisites for mainstreaming regenerative agriculture and circular waste-to-resource innovations, such as biochar deployment, vermicompost systems, microbial soil restoration, anaerobic digestion, and food-loss mitigation technologies, within the agri-food architectures of developing economies. Participants underscored that these interventions can significantly curb methane emissions, rehabilitate degraded soils, enhance hydrological efficiency in

pathways, and scaling community-driven resource recovery mechanisms, such as composting cooperatives, vermiculture enterprises, and smallholder biogas systems, that simultaneously generate income, improve soil health, and mitigate environmental externalities. The panel also explored enabling conditions for scaling, including policy coherence, donor coordination, blended finance mechanisms, gender-responsive enterprise models, and the integration of GIS, remote sensing, and machine-learning-based

### Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation

**Date:** Thursday, 13 November 2025  
**Time:** 11:00 – 12:00 (GMT -3, Belém, Brazil Time)  
**Location:** Thailand Pavilion, Blue Zone

**Moderator:**

Mr. Hamid Majid Abbasi  
Senior Executive  
FACE-FFC, Pakistan

**Panelists:**

Amb. Dr. M. Nafees Zakaria  
Executive Director  
COMSATS

Dr. Muhammad Sharif  
Advisor, Science and Technology  
ICESCO, Morocco

Mr. Hasan Akram  
Chief Operating Officer  
FACE-FFC, Pakistan

Dr. Jauad El Kharraz  
CEO, Water-Energy-Climate  
Expert Network (WECEN),  
Morocco

Ms. Rabeab Aloui  
UNEP Women Major Group

Dr. Sohail Malik  
Technical Team Lead  
CRCC, Pakistan

Ms. Thunpicha Greigarn  
Climate and Inclusion Specialist  
Consultant on Gender and Social  
Inclusion for Thailand's Climate  
Change Action Plan for Agriculture



arid ecosystems, and close nutrient loops at scale.

Discussions emphasized the imperative of strengthening national research systems, embedding farmer-centric innovation

MRV systems to support evidence-driven agricultural and landscape restoration planning, particularly in data-scarce regions.

Coordination Center (CRCC) Pakistan; and Ms. Thunpicha Greigarn, Climate and Inclusion Specialist, who collectively examined the technical and institutional complexities of deploying biochar,



vermicompost, microbial soil restoration, and food-waste reduction technologies in developing countries. Their dialogue addressed the systemic constraints of financing, institutional fragmentation, and limited data integration, while also considering the enabling role of interdisciplinary collaboration.

Dr. Aloui emphasized the centrality of journalism, public media, and community-level platforms in shaping inclusive and evidence-based narratives on regenerative agriculture and waste-to-resource transitions, noting that inter-ministerial communication hubs, public awareness frameworks, and participatory engagement mechanisms strengthen public trust, policy coherence, and the social legitimacy of low-emission solutions. Dr. Malik identified methane-monitoring data gaps as a critical constraint to meeting Enhanced Transparency Framework (ETF) requirements under the Paris Agreement, underscoring that national coordination

bodies such as CRCC can mobilize academia, municipalities, and private-sector operators to jointly pilot biochar, composting, and microbial soil restoration initiatives that deliver both emissions reductions and adaptation co-benefits.

Ms. Greigarn highlighted that climate-smart agricultural transitions must be economically viable and socially equitable, particularly in contexts where ageing farmers are already burdened by competing livelihood pressures; she stressed that stronger inter-agency coordination among agriculture, environment, finance authorities, and local administrations is essential to ensure that adaptation and decarbonization responsibilities do not fall disproportionately on farmers. The session also integrated

forward-oriented thematic questions posed to the speakers, broadening the dialogue toward COP30 and future multilateral workstreams. These included how water-energy-climate nexus approaches can underpin regenerative agriculture in arid regions where water reuse, biogas recovery, and soil restoration intersect; what types of regional and cross-sectoral partnerships between utilities, farmers, and clean-tech innovators are needed to convert organic waste and wastewater into local sources of energy and nutrients; what practical steps can bridge methane-monitoring data gaps across agriculture and waste sectors to strengthen evidence-based ETF reporting; how national coordination mechanisms can catalyze joint pilots on biochar, composting, and microbial soil enhancement; what measures can alleviate the adoption barriers of climate-smart agriculture in ageing rural communities; and which institutional mechanisms or policy instruments can bridge governance gaps so that low-carbon transitions are shared equitably rather than imposed on farmers alone.







**“Bridging Climate Finance Gaps: Practical Approaches for Developing Countries” – GCC Climate Action Hub Pavilion, Blue Zone - November 14, 2025**

COMSATS, in collaboration with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), Morocco; the Food Security and Agriculture Centre of Excellence (FACE-FFC), Pakistan; and the Global Carbon Council (GCC), UAE, convened a Policy Dialogue “Bridging Climate Finance Gaps: Practical Approaches for Developing Countries” at the GCC Climate Action Hub Pavilion on 14th November 2025. The session responded to the acute and persistent challenge confronting developing economies, insufficient, unpredictable, and often inaccessible climate finance for adaptation, resilience-building, and climate-resilient agriculture.

Moderated by Dr. Fahman Fathurrahman, Science and Environment Sector Expert at ICESCO, the discussion drew senior government officials, multilateral finance practitioners, and knowledge-sector leaders into a robust exchange on actionable strategies to overcome systemic barriers in public climate finance delivery. Participants discussed emerging frameworks for Loss and Damage, national readiness systems, and institutional reforms essential for translating climate finance flows into measurable, resilience-enhancing outcomes.

Representing ICESCO, Dr. Muhammad Sharif provided an analytically grounded perspective on the structural reforms required to unlock climate finance for the Islamic world and broader Global South. He stressed that climate finance strategies must be rooted in evidence-based risk assessments, integrated knowledge

systems, and enhanced absorptive capacities of national institutions. Dr. Sharif emphasized ICESCO’s support for member states in operationalizing STI-driven solutions, including satellite-based monitoring, AI-supported impact modelling, and capacity-building for ministries tasked with NDC implementation, noting that without such systems the effectiveness of climate finance remains severely constrained.

Speaking from the perspective of FACE-FFC Pakistan, Mr. Hassan Akram highlighted the critical role of industry-supported agricultural innovation in accelerating climate-resilient development. Drawing on FACE-FFC’s work in digital agriculture and community-based extension ecosystems, he stressed that climate finance can only deliver transformative outcomes when it is channeled into interventions that strengthen farmer-level agency, equip local systems with actionable climate intelligence, and incentivize private-sector engagement in resilient supply-chain development.

Deliberations throughout the session identified practical and scientifically grounded pathways for strengthening access to public climate finance. Speakers reiterated the importance of aligning domestic policies, institutional mandates, and sectoral planning cycles with international funding requirements to address slow disbursement rates and



limited absorptive capacity in developing countries. They emphasized that climate finance systems must be designed to support long-term resilience, not short-term project cycles, by integrating climate-risk data into budgeting, embedding multi-sectoral coordination mechanisms, and mainstreaming evidence-based governance practices.

Representing Ghana's Ministry of Environment, Science and Technology, Madam Suweibatu Adams emphasized that institutional readiness is not merely procedural but deeply structural. She underscored that Ghana's progress in accessing climate finance has been anchored in harmonizing scientific evidence with national development priorities, and implementing cross-sectoral coordination mechanisms between environment, finance, science, and local governance institutions. She stressed that for public climate finance to be transformative, it must strengthen local institutions, embed adaptive innovation, and support resilient food and water systems essential to national stability.

From the humanitarian and community-resilience perspective, Ms. Aisha Jamshed of Welthungerhilfe stressed that climate finance must reach the last mile, smallholder farmers, women, and vulnerable rural households, through transparent and verifiable delivery channels. She highlighted WHH's

experience in scaling community-designed adaptation models, noting that localized early-warning systems, decentralized water governance, and community-managed resilience infrastructures yield measurable benefits when adequately financed and monitored.

Mr. Oliver Rieche of Balance Eco illuminated the legal and regulatory dimensions of climate finance, explaining that fragmented regulatory environments and outdated legal instruments frequently deter access to funds. He cited examples of countries that reformed fiduciary standards, clarified environmental governance mandates, and introduced standardized resilience-metrics frameworks, thereby unlocking previously inaccessible multilateral finance. Representing community-driven climate action, Ms. Joselyn Mirashi of the Eco Pulse Network highlighted the significance of empowering local communities with credible information, adaptation tools, and decision-making authority. She underscored that communities are not passive beneficiaries but active co-architects of climate-resilience solutions, with networks such as Eco Pulse elevating community insights, and forging partnerships that translate local priorities into funded adaptation projects.

Panelists reaffirmed that climate finance must be transparently governed, scientifically informed, and equitably



distributed to ensure that vulnerable populations particularly farmers, rural communities, and low-income urban groups benefit from resilience-building investments.

**“Beyond Crisis Response: Cross-Sectoral Approaches for Disaster Risk Reduction, Food Security and Resilient Recovery” – GORD Pavilion, Blue Zone - November 14, 2025**

COMSATS, in collaboration with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), Morocco; the Food Security and Agriculture Centre of Excellence (FACE), Pakistan; Welthungerhilfe (WHH)–Pakistan; the Climate Reality Project, Indonesia; and the Gulf Organization for Research and Development (GORD), convened two sessions of high-level Multi-Stakeholder Dialogues on the theme







agriculture, finance, education, and social development portfolios in order to establish coherent and scalable frameworks for resilient recovery. Through structured discussion, he guided

“Beyond Crisis Response: Cross-Sectoral Approaches for Disaster Risk Reduction, Food Security and Resilient Recovery”. The sessions, held at both the GORD Pavilion and the Pakistan Pavilion in the Blue Zone, brought together senior policymakers, international experts, and institutional leaders to deliberate on prevailing disaster governance frameworks and articulate pathways for transitioning from reactive humanitarian intervention to anticipatory, integrated, and community-anchored resilience architectures across the Global South.

Speaking on behalf of ICESCO, Mr. Anar Karimov, Head of Partnerships and International Cooperation, highlighted the necessity of safeguarding human development indicators, including learning continuity, cultural assets, and community identity, within disaster recovery frameworks. Drawing on ICESCO’s mandate in science, education, and culture, Mr. Karimov stressed that systemic resilience requires embedding DRR into educational curricula, promoting digital literacy for disaster response, and investing in community-centered innovation ecosystems that empower youth and local institutions.

Moderating the session, Dr. Fahman Fathurrahman, Expert in the Science and Environment Sector at ICESCO, underscored the urgent need for policy convergence across environment,

participants toward recognizing that disaster risk reduction must be intrinsically linked with food system transformation, livelihood diversification, and climate-smart territorial development.

Representing the Climate Reality Project, Indonesia, Ms. Arifah Handayani emphasized participatory and locally driven approaches to resilience. She highlighted how communities, local governments, and other stakeholders collaborate to enhance disaster preparedness and strengthen food system resilience. Drawing on practical examples, she showcased successful cross-sector partnerships where government agencies, NGOs, private sector actors, and communities jointly implemented recovery strategies that reduce long-term disaster and climate risks.

Offering private-sector insights, Mr. Hamid Majid from FACE-FFC, Pakistan, discussed strategies for climate-proofing agricultural value chains. He outlined practical and cost-sensitive interventions such as energy-efficient production processes, renewable energy integration, water-smart irrigation technologies, and targeted support mechanisms for smallholder farmers. He noted that well-designed public-private partnership models have the potential to concurrently advance corporate sustainability commitments, reinforce national climate-adaptation priorities, and strengthen

community-level resilience, particularly in regions confronting interlinked food, water, and energy stresses.

From a youth and community empowerment perspective, Ms. Joselyn Mirashi, Climate Advocate and Co-Founder of the Eco Pulse Network (Tanzania), highlighted the central role of young people in catalyzing grassroots resilience initiatives. She shared examples from East Africa demonstrating how youth-led networks strengthen early-warning literacy, promote diversified and climate-smart livelihoods, and enhance community leadership for disaster preparedness and recovery. She emphasized that empowering youth constituencies amplifies local voices in national adaptation planning processes and accelerates the diffusion of low-cost, context-relevant resilience solutions.

Collectively, the panelists affirmed that building resilient recovery systems requires a holistic architecture that links national policy frameworks with localized implementation, transparent and accountable financing mechanisms, inclusive technological solutions, and robust public-private-civil society partnerships. They underscored that resilience can be sustained only through multi-sectoral governance, nature-based and culturally grounded interventions, and strategic long-term investment in community capabilities. The dialogues reinforced the pressing need for strengthened scientific cooperation, equitable climate finance, and enhanced South-South and Triangular collaboration to operationalize disaster risk reduction and secure food systems amid escalating climate uncertainties.

**“Pathways to Net-Zero Through South-South Synergies: Climate-Resilient Technologies, Capacities, and Cultural Anchors” – UNFCCC Pavilion, Blue Zone - - November 14, 2025**

COMSATS, in collaboration with the Islamic World Educational, Scientific



Secretary General for Energy and Climate Action, emphasized the strategic integration of indigenous knowledge, local innovation, and cultural institutions into energy transition frameworks.

and Cultural Organization (ICESCO), Morocco, and the Union for the Mediterranean (UfM), convened an official UNFCCC COP side event, competitively selected through the UNFCCC call for proposals, and held in the designated UNFCCC Side Event Room reserved for official sessions. Titled “Pathways to Net-Zero Through South–South Synergies: Climate-Resilient Technologies, Capacities, and Cultural Anchors,” the dialogue brought together senior policymakers, scientific leaders, development economists, and technology innovators to deliberate on how South–South and Triangular Cooperation (SSTC) can function as a catalytic force for net-zero transitions grounded in regional context, cultural continuity, and climate-resilient innovation systems across the Global South.

The session opened with opening remarks from H.E. Dr. Salim M. Al Malik, Director General of ICESCO; Ambassador Dr. Muhammad Nafees Zakaria, Executive Director COMSATS; and Mr. Nasser Kamel, Secretary General of the UfM. Their interventions collectively underscored the structural injustice embedded in global climate asymmetries, where the Global South bears the overwhelming brunt of climate catastrophes, despite historically negligible emissions, and called for a paradigm shift in global cooperation, centered on equity, shared responsibility, and context-appropriate technological transformation.

H.E. Dr. Salim M. Al Malik called for a human-centered, culturally anchored climate response, stressing that societies in the Global South are already reconfiguring governance, knowledge, and social protection systems to cope with intensifying climate extremes. He argued that net-zero pathways must be fundamentally cooperative, interregional, and trust-based, reflecting shared histories, common vulnerabilities, and mutually reinforcing development goals.

Moderated by Mr. Hamid Majid Abbasi, Senior Executive, FACE–FFC Pakistan, the panel explored the nexus of culture, climate resilience, and technological convergence, examining how indigenous ecological knowledge, digital innovation, and South–South financing architectures can together generate scalable, just, and context-sensitive pathways toward net-zero.

The panelist, Mr. Mathias Mogge, Chief Executive Officer, Welthungerhilfe (WHH), underscored that blended finance and risk-sharing mechanisms, such as resilience bonds, climate-smart guarantee facilities, and adaptive agricultural investment platforms have demonstrated success in mobilizing both public and private capital for climate-resilient food systems.

Drawing on UfM’s experience with highly diverse Mediterranean societies, Mr. Grammenos Mastrojeni, Senior Deputy

Mr. Leonardus Vergutz, Chief Scientific Officer, OCP Nutricrops, drew attention to the centrality of soil health as a biophysical determinant of resilience. He proposed that coordinated South–South research frameworks linking soil-health datasets with climate early-warning systems can significantly enhance drought prediction, food-insecurity forecasting, and adaptive cropping strategies.

Mr. Lincoln Teo, Managing Director, Zero13 & Founder, Intelligence Wise (iWise), outlined how digital innovations, such as decentralized verification systems, blockchain-enabled carbon markets, and AI-driven climate-finance vetting tools, can unlock efficient, transparent, and credible financing pathways.

Dr. El Khalil Cherif, Senior Researcher, Institute for Systems and Robotics, University of Lisbon, emphasized the need for integrated, transboundary early-warning systems capable of pooling climate data across South-South networks.

The deliberations underscored that net-zero transitions in the Global South must be approached as holistic development transformations rather than linear technological shifts. Speakers highlighted that strengthened South–South Cooperation serves as a critical structural enabler for regionally adaptive technologies, shared climate intelligence, and co-financed solutions grounded in local socio-ecological dynamics.



## 6. SPECIAL ASSIGNMENTS

- COMSATS Telehealth (CTH) 76
- COMSATS Centre for Climate and Sustainability (CCCS) 80
- COMSATS Internet Services (CIS) 88

## SPECIAL ASSIGNMENTS

*For the benefit of its Member States, COMSATS undertakes special assignments, such as conducting scientific studies, undertaking pilot projects, and implementing educational programmes. Other than CUI, two of COMSATS' flagship projects, COMSATS Internet Services (CIS) and COMSATS Telehealth (CTH) continue their operations under the oversight of COMSATS Secretariat. Activities of COMSATS Centre for Climate and Sustainability (CCCS) have grown over the years and are included in this Chapter.*



Group Photo of the Seminar on “Bridging the Climate Adaptation Divide Across the Food–Water–Agriculture Nexus” (20th June 2025)

### COMSATS Telehealth (CTH)

#### COMSATS Telehealth under Digital and Global Health

During 2025, COMSATS Telehealth underwent a progression in terms of number of clinics as well as the number of patients served through. One of the biggest landmarks for COMSATS Telehealth was the indigenous development of patient information software by COMSATS Software solutions that has incredibly changed the dynamics of Telehealth service provided by COMSATS to the remote areas of Balochistan.

#### Important features of Telehealth Service in 2025

During the reporting year, three (3) new clinics were added to the list of teleclinics being served by COMSATS Telehealth program in Balochistan. With new centres established in BHUs in the regions of Jhal Magsi, Sherani and Barkhan, this brings



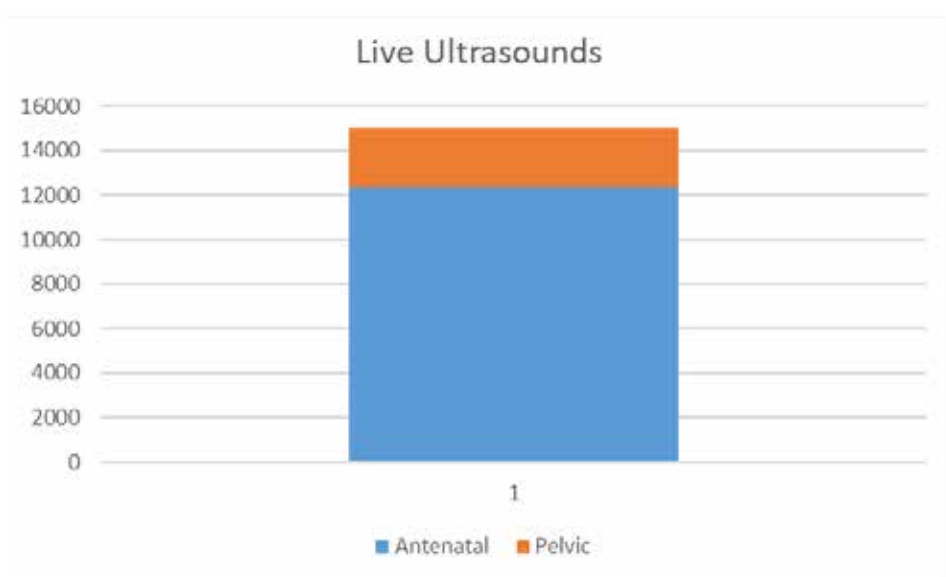
total number of Teleclinics to 34.

Addition of new clinics requires increase in the healthcare providers at the resource Centre from where the Telehealth service is provided to these centres. Therefore, with the new clinics being added and rise in the number of patients seeking healthcare at each COMSATS' Teleclinics,

the number of doctors at the resource centre increased to 21.

Compared to the figure of 7500 the maximum number of patients provided service in one month in previous year, this year saw a drastic increase in the maximum number of patients per month through Telehealth. During the month of





December 2025 more than 15000 patients were provided teleconsultations.

### Facts and Figures

COMSATS Telehealth is gradually making its mark upon the communities benefitting from the presence of our doctors. Further, addition of new teleclinics also added to the rise in the number of patients. The total number of patients rose to 136947 in comparison to 71,752 during the year 2025.

Out of total of 136,947 patients, female OPD dominated the Telehealth service with 113141 females seeking healthcare through Teleclinics during the year. Around 17664 children also benefitted from the services provided by COMSATS Telehealth.

Timely referrals and identification of risk cases are two biggest benefits of Telemedicine in the rural areas. During the year 2025, around 1098 cases were referred to the tertiary care and 2519 high risk cases were identified by specialist doctors.

One of the diagnostic facility that is the prominent feature of COMSATS Telehealth program is the live ultrasound facility used to diagnosed and assess the obstetrics and Gynaecology issues. In 2025, a total of 15054 ultrasounds were done.

### World Health Day Celebration

In continuation of its previous precedence COMSATS Telehealth continued to celebrate World Health day celebrated on 7th April each year. The prominent

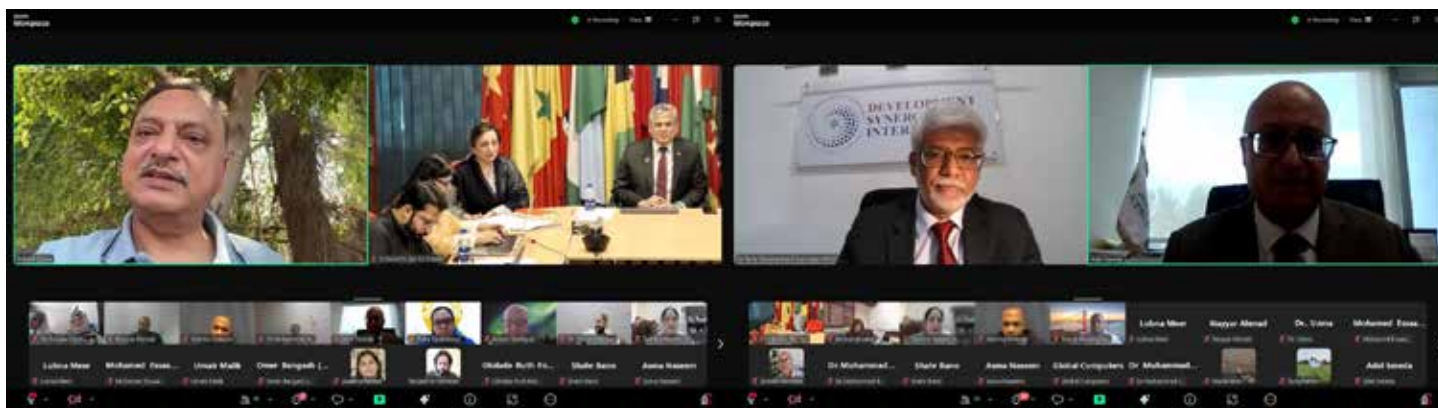
features of this year's activities included a webinar in collaboration The Islamic World Educational, Scientific and Cultural Organization (ICESCO) and a virtual medical camp at Gokina in Islamabad. Aligning with the theme for the year 2025, the Telehealth activities also focused on Maternal and Child Health.

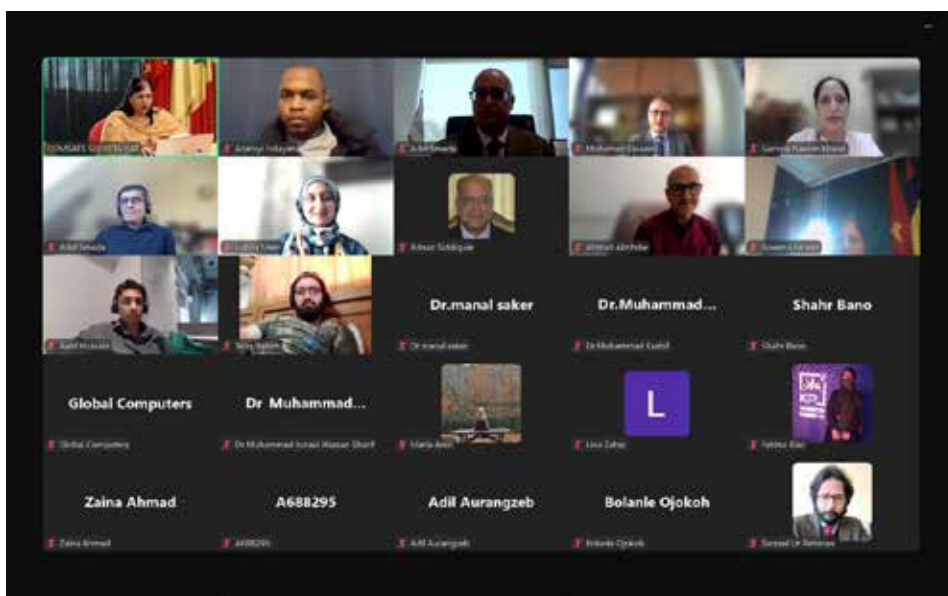
### Webinar on “Leveraging Technology for Better Outcomes in Maternal & Child Health”

In celebration of World Health Day 2025, themed “Healthy Beginnings, Hopeful Futures,” COMSATS Headquarters joined hands with ICESCO to organize an international panel discussion titled “Leveraging Technology for Better Outcomes in Maternal & Child Health” on 29th April 2025. The event underscored COMSATS’ ongoing commitment to harnessing technology for equitable and improved healthcare, particularly for women and children in low-resource settings.

Bringing together leading experts, researchers, and digital health professionals from across the globe, the event provided a platform to explore cutting-edge innovations and collaborative approaches aimed at tackling maternal and child health disparities in developing countries.

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, opened the session by emphasizing the transformative role of technology





in narrowing health equity gaps. He reaffirmed COMSATS' dedication to fostering innovation and promoting scalable tech-driven solutions, such as artificial intelligence and mobile health applications, to improve maternal and child health outcomes.

Prof. Dr. Raheel Qamar, Head of Science and Technology Sector, ICESCO shared upcoming advancements in AI-powered predictive healthcare tools, including a genetic-data-based Alzheimer's prediction tool being launched in Pakistan. He also discussed the evolving healthcare workforce landscape in light of AI integration.

In her comments, Dr. Sofia, DG, population and DDG Health, at MoHNSRC, shared the challenges where adopting technology could help for example for managing the huge data through technology, reaching out to providing universal access. She acknowledged the efforts of COMSATS and current leadership at the Ministry in recognizing the technology as a tool for betterment of healthcare without compromising on the need for the physical checkups.

Delivering keynote address for the event, Zulfiqar Bhutta, Founding

Director, Institute for Global Health and Development reflected on global progress in child mortality reduction through the Millennium Development Goals (MDGs), while pointing out the persistent inequalities fueled by geography, gender, and conflict. He advocated for the strategic use of digital tools, including telemedicine and geospatial data, to extend healthcare access to underserved populations.

During the panel discussion, Prof. Mohamed Essaaidi elaborated on how AI can address systemic healthcare challenges, particularly in maternal and child health while Prof. Rachid Jennane, Professor of Engineering and Computer Science, University of Orléans (France) showcased AI applications for early diagnosis of knee osteoarthritis among women of reproductive age, utilizing deep learning for earlier intervention. Other panelists like Dr. Adeniyi Folayan, a Global Health Research Fellow at Toufik's World Medical Association drew attention to the critical role of mobile health (mHealth) in addressing maternal mortality, emphasizing the dire global need—given that one woman dies from childbirth-related complications every minute. Programme Manager, (Consultant), Pangaea, from Zimbabwe, Mr Enock Musungwini, introduced the Boost Health

App, and developed by his organization, which delivers health education to the public, with a focus on those affected by HIV.

From Pakistan, Dr. Samina Naeem called for a National Digital Maternal, Newborn, and Child Health (MNCH) Strategy, data privacy laws, and telemedicine regulations. She emphasized investing in local research, training healthcare workers in digital tools, and fostering public-private partnerships. Dr. Muhammad Tariq shared outcomes of localizing digital health and AI for maternal and child health in Pakistan, emphasizing the importance of tailored solutions for local contexts.

The event reaffirmed COMSATS' position at the forefront of digital health innovation and collaboration, setting the stage for future partnerships to improve healthcare access and outcomes for mothers and children worldwide.

#### 4-Day Telehealth Medical Camp in Gokina Medical Camp

In line with the global theme “Healthy Beginnings, Hopeful Futures”, to commemorate the World health day 2025, COMSATS in collaboration with the Ministry of National Health Services, Regulations & Coordination (MoNHSR&C) and the District Health







Resource Centre in Islamabad to effectively use the Telehealth system.

During the camp, the BHU was transformed into an operational Telehealth unit with separate rooms designated for registration, teleconsultation, dispensary, and ultrasound support.

Office (DHO) Islamabad, organized a four-day Telehealth Medical Camp from April 14–17, 2025, at the Basic Health Unit (BHU) in Gokina, a remote village in the Margalla Hills region, Islamabad.

This impactful initiative provided free teleconsultations to over 550 patients across various specialties including General Medicine, Pediatrics, Gynecology, and Dermatology, and aimed to demonstrate how tech-enabled healthcare access gap can be bridged in rural areas. Gokina has long faced challenges in accessing reliable healthcare due to its remote location and limited infrastructure in the middle of the hills. This camp also marked the revival of Telehealth services in the region, which provided by COMSATS in the area, however, were discontinued in 2020 on the premise to continue through ICT administration's own resources. Recent engagement with MoNHSR&C led to the collaborative decision to restart services at Gokina, beginning with a medical camp on World Health Day. The Ministry directed DHO Islamabad to coordinate efforts with COMSATS for implementation, laying the groundwork for future permanent Telehealth deployment in the region.

COMSATS conducted technical assessment to evaluate available resources and carried out training of the staff from the DHO at the COMSATS Telehealth

Teleconsultations were carried out through secure video links between patients at BHU Gokina and doctors stationed at the COMSATS Telehealth Resource Centre in Islamabad.

A custom-built Patient Information Management System (ComSoft) was used to ensure secure handling of patient data, prescriptions, and follow-up records.

### High-Level Visit and Endorsement

On April 15, Mr. Mirza Nasir ud Din Mashood Ahmad, Special Secretary of MoNHSR&C, visited the camp along with the DHO Islamabad. They were joined virtually by Amb. Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, who highlighted the organization's ongoing commitment to Telehealth services across Pakistan. The Special Secretary praised the setup and recommended the establishment

of a permanent Telemedicine clinic at BHU Gokina.

The Telehealth Medical Camp at Gokina demonstrated COMSATS' commitment to bridging healthcare gaps using digital innovation. It stands as a scalable model for remote health service delivery and highlights the importance of multi sectoral collaboration in achieving equitable health access across Pakistan.

### LHV Training

One of the hallmark of this year's activity was the on job training of the LHVs at the remote site. It had been felt for some time now that since many clinics have been operating for many few years now and some had its staff changes or shuffled, therefore there was a need for a renewed training. In Telehealth, LHVs at the remote sites play a vital role in presenting the patient's complaints, vitals and key examination to the doctors at the resource Centre. Therefore a weeklong, daily session of 1.5 hrs was conducted to improve the history and examination skills of the LHVs. The Pediatricians, Gynecologists & Dermatologist trained LHVs on basic presenting complaints, common errors & key corrections in their respective fields. The last 2 days of Telehealth LHVs' training were led by family physicians, focusing on patient complaints, common terms & frequent mistakes.

This capacity building was aimed to ensure smoother, more reliable teleconsultations across Telehealth centres in Balochistan.





### Advocacy and collaborations through visits and participation in relevant forums

A pioneer in Telehealth work in the region, COMSATS advocates the advancement of use of technologies in health through collaborations and participation in the relevant forums.

A number of dignitaries and public figures visit the Telehealth Resource Centre throughout the year. centre Demonstrations and briefings are given quite regularly to visitors from Diplomats and government functionaries and students looking to pursue research or careers in digital health technologies.

The noteworthy forums where COMSATS Telehealth participated were:

1. A round table discussion on “Evidence for Change: Using Burden of Disease Data to Shape Policy” organized by Research and Development Solutions (RADS) on 23rd July 2025
2. Sexual and Reproductive Health (SRH) Working Group meeting, convened by the Ministry of NHR&C with UNFPA on 2nd June 2025. The focus of convening this group and meeting was to strengthen preparedness and response for SRH need particularly during emergencies such as natural disasters and displacement. The group serves as a coordination platform to guide and

support Ministry of Health in policy, capacity building, and service delivery strategies regarding SRH.

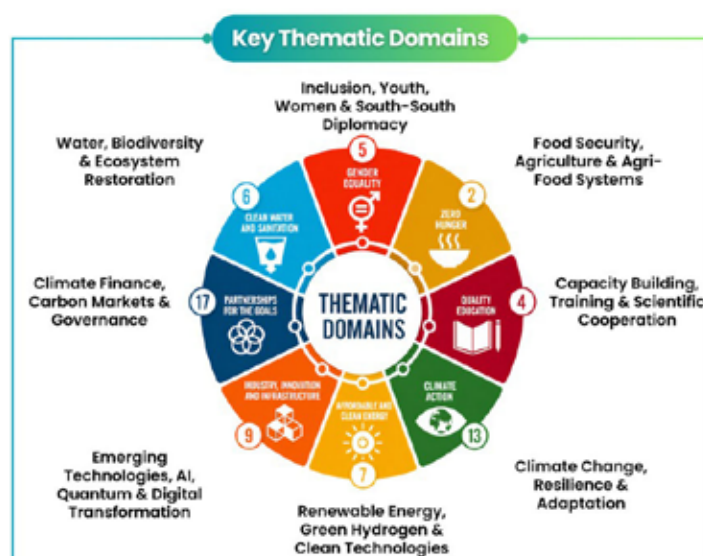
3. During the month of November, Telehealth was showcased at the CIS stall during the 2-week Lok Virsa mela in Islamabad. The visitors at the stall took interest in Telehealth and sought basic medical advice from the doctors present on line.
4. A team of family physicians at Telehealth led by a senior family physician and a pediatrician participated Family Medicine session at 15th Public Health Conference at Health Services Academy. Two senior doctors highlighted the CTH's contribution towards primary healthcare through online consultations & scans.
5. COMSATS Telehealth was also featured as a part of COMSATS' exhibit at a 4 day conference and expo organized by SDPI in November. The digital Health Initiative and its impact was demonstrated to the dignitaries and visitors of the conference.

### COMSATS Centre for Climate and Sustainability (CCCS)

The COMSATS Centre for Climate and Sustainability (CCCS) maintained a dynamic programme of engagements during the reporting period, contributing to global discourse on climate action, sustainable development, and science-based policymaking across intergovernmental and development platforms. Guided by the principles of multilateralism, South-South and triangular cooperation, and evidence-informed advocacy, CCCS further strengthened its engagement with governments, international organizations, research institutions, and development partners across the Global South and beyond. Through these efforts, the Centre advanced initiatives aimed at enhancing climate resilience, promoting sustainable development pathways, and reinforcing scientific and institutional capacities. While detailed accounts of CCCS activities are presented in preceding sections of this Annual Report, the following provides an overview of selected high-level engagements and strategic contributions.

### High-Level Engagement and Global Representation

A key engagement during the reporting





period was the high-level meeting with H.E. John Dramani Mahama, President of the Republic of Ghana and incumbent Chairperson of COMSATS, held at the Jubilee House (Presidency), Accra, on 10 September 2025. Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, was granted a formal audience, attended by senior Ghanaian leadership including H.E. Mr. Emmanuel Armah Kofi Buah, Minister of Environment, Science and Technology (MEST); Madam Suweibatu Adam, Chief Director, MEST; and Prof. Paul Pinnock Bosu, Director General of the Council for



Scientific and Industrial Research (CSIR).

During the interaction, Ambassador Zakaria briefed the President on key COMSATS initiatives, including the establishment of an ISO-certified nanotechnology laboratory, advancements in indigenous electric vehicle (EV) technologies, and ongoing capacity-building programmes across Member States. President Mahama reaffirmed Ghana's continued support for COMSATS and emphasized the importance of strengthened coordination between MEST and the COMSATS Secretariat in preparation for the forthcoming Commission-level engagement at the summit level.

Complementing the presidential engagement, the COMSATS delegation held consultations with Ghana's Focal Point at MEST and representatives of its Centre of Excellence, CSIR. These discussions facilitated a review of ongoing cooperation and identified opportunities

for aligning COMSATS programmes with Ghana's national priorities in science, technology, and innovation. During the visit, Ambassador Zakaria presented CCCS' flagship publication, "CCCS: Five Years of Impact (2020–2025)", and extended an invitation to MEST to engage in COMSATS-led climate resilience dialogues at COP30.

### Engagement at COP30 and Multilateral Climate Platforms

COMSATS sustained its engagement



with global climate processes through participation in the 30th Conference of the Parties (COP30), held from 10–21 November 2025 in Belém, Brazil. CCCS contributed substantively through a series of high-level sideline engagements organized in collaboration with strategic partners.

In line with its mandate to advance South–South cooperation in science, technology, and innovation, CCCS collaborated with a broad network of intergovernmental, regional, and

| COMSATS' Events on the Sidelines of COP30 |                                                                                                                      |                                                                    |                                                                    |                  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------|
| Area                                      | Event Title                                                                                                          | Organizing Partners                                                | Pavilion                                                           | Date             |
| Agroecology & Net-Zero                    | Scaling-up Agroecology Initiatives for Net-Zero Pathways in the Global South                                         | COMSATS; ICESCO; GASP; AOB Group; FACE-FFC                         | Food & Agriculture Pavilion, Blue Zone                             | 12 November 2025 |
| Agri-Food Transformation                  | Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation              | COMSATS; GoP; ICESCO; ICARDA; WHH-Pakistan; FACE-FFC               | Pakistan Pavilion, Blue Zone                                       | 12 November 2025 |
| Circular Agri-Food Systems                | Regenerative Practices, Waste-to-Resource Technologies, and Sustainable Agri-Food System Transformation              | COMSATS; ICESCO; ICARDA; FACE-FFC                                  | Thailand Pavilion, Blue Zone                                       | 13 November 2025 |
| Climate Finance                           | Bridging Climate Finance Gaps: Practical Approaches for Developing Countries                                         | COMSATS; ICESCO; FACE-FFC; Global Carbon Council (GCC)             | GCC Climate Action Hub Pavilion, Blue Zone                         | 14 November 2025 |
| Disaster Risk Reduction & Food Security   | Beyond Crisis Response: Cross-Sectoral Approaches for Disaster Risk Reduction, Food Security, and Resilient Recovery | COMSATS; ICESCO; FACE; WHH-Pakistan; Climate Reality Project; GORD | GORD Pavilion & Pakistan Pavilion, Blue Zone                       | 14 November 2025 |
| Net-Zero & South-South Synergies          | Pathways to Net-Zero Through South-South Synergies: Climate-Resilient Technologies, Capacities, and Cultural Anchors | COMSATS; ICESCO; Union for the Mediterranean (UfM)                 | UNFCCC Side Event Room (Official UNFCCC COP Side Event), Blue Zone | 14 November 2025 |

knowledge-sector institutions, including the Islamic World Educational, Scientific and Cultural Organization (ICESCO), the Food Security and Agriculture Centre of Excellence (FACE-FFC), the Global Alliance for a Sustainable Planet (GASP), Welthungerhilfe (WHH), the International Center for Agricultural Research in the Dry Areas (ICARDA), the Gulf Organization for Research and Development (GORD), the Climate Reality Project (Indonesia), and the Union for the Mediterranean (UfM).

These engagements addressed critical thematic areas, including climate adaptation, resilience-building, sustainable agri-food systems, climate finance, and disaster risk reduction. CCCS contributed to discussions across multiple high-level platforms, including the UNFCCC Pavilion, the Food and Agriculture Pavilion, the Pakistan Pavilion, the GORD Pavilion, and the GCC Climate Action Hub Pavilion.

In collaboration with partner institutions, CCCS co-organized seven thematic sessions, bringing together policymakers, researchers, practitioners, and representatives from civil society

and youth networks to advance interdisciplinary dialogue and policy-relevant outcomes. Notably, COMSATS co-organized an UNFCCC COP side event. The session focused on advancing net-zero pathways and strengthening cooperation frameworks among countries of the Global South.

### Policy Advocacy and Multistakeholder Platforms

During the reporting period, the COMSATS Centre for Climate and Sustainability (CCCS) sustained its engagement in national and regional science-policy dialogues, contributing to the advancement of evidence-based

policymaking and multi-stakeholder collaboration across the Global South. These engagements reinforced COMSATS' role as a facilitator of knowledge exchange and policy convergence in the domains of science, technology, and innovation (STI), climate resilience, and sustainable development.

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, participated as a panelist in the International Conference on Science, Technology, and Innovation (ECONEX 2025), convened under the auspices of the Economic Cooperation Organization Science Foundation (ECOSF), in collaboration with the Higher Education





| CCCS Events and Activities (2025)                                                             |                                                         |                                |                  |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------|------------------|
| Event Title                                                                                   | Organizing Partners                                     | Venue                          | Date             |
| Webinar on 'Women in Science: Unpacking STEM Careers – Her Voice in Science'                  | COMSATS                                                 | Online/Virtual                 | 11 February 2025 |
| International Mother Earth Day 2025 – Tree Plantation Ceremony                                | COMSATS                                                 | COMSATS Secretariat, Islamabad | 22 April 2025    |
| Online Training Workshop on Zero Waste and Circular Economy                                   | COMSATS & TÜBİTAK                                       | Online/Virtual                 | 10 April 2025    |
| High-Level National Seminar on Climate-Agriculture Nexus (World Environment Day 2025)         | COMSATS; MoCC&EC; NDMA; ECOSE; NDRMF; ICARDA; WHH; FACE | NDMA Auditorium, Islamabad     | 20 June 2025     |
| Virtual Coordination Meeting of CCCS Member Institutions                                      | COMSATS CCCS Secretariat                                | Online/Virtual                 | 2 June 2025      |
| International Workshop on Applications of Emerging Technologies and AI for Advancing the SDGs | COMSATS; ICESCO; RSS; PSUT                              | PSUT, Amman, Jordan            | 15 October 2025  |
| 3rd Meeting of COMSATS Technical Advisory Committee (TAC)                                     | COMSATS; RSS; PSUT                                      | Amman, Jordan                  | 14 October 2025  |

Commission (HEC) of Pakistan and the ECO Secretariat. During the plenary session on “Regional Collaboration in the STI Ecosystem,” Ambassador Zakaria highlighted the persistent innovation divide between the Global North and the Global South, particularly disparities in research and development investment and their implications for technological advancement. He emphasized the importance of strengthened regional cooperation, including the pooling of scientific expertise, resources, and institutional capacities among COMSATS and ECO Member States.

In addition, CCCS convened a high-level seminar titled “Bridging the Climate-Adaptation Divide Across the Food–Water–Agriculture Nexus” in observance of World Environment Day 2025. The seminar brought together representatives from government institutions, academia, development partners, and diplomatic missions to deliberate on climate adaptation challenges and opportunities for collaborative action. The Federal Minister for Climate Change and Environmental Coordination, Dr. Musadik Masood Malik, attended the event as Chief Guest and emphasized the importance of integrating adaptive

capacity within national development planning frameworks, while aligning Pakistan's climate priorities with broader global sustainability agendas.

CCCS contributed substantively to the 3rd Meeting of the COMSATS Technical Advisory Committee (TAC), convened on 14 October 2025 in Amman, Jordan, under the patronage of Her Royal Highness Princess Sumaya bint El Hassan. The meeting marked the reconvening of the TAC and provided an important forum for reviewing ongoing technical programmes and deliberating on strategic priorities for the forthcoming COMSATS



Strategy 2026–2030. Discussions addressed emerging areas of cooperation, including artificial intelligence, clean technologies, digital health systems, and climate modelling tools, while also highlighting cross-cutting priorities such as climate resilience, energy transition, digital inclusion, and capacity-building across Member States.

## Capacity Building through Scientific and Technical Trainings

### a. Online Training Workshop on Zero Waste and Circular Economy

As part of its capacity-building mandate, COMSATS, in collaboration with the Scientific and Technological Research Council of Türkiye (TÜBİTAK), co-organized an online training workshop on “Zero Waste” on 10 April 2025. The workshop convened a diverse group of scientists, engineers, policymakers, and practitioners from multiple countries to exchange knowledge and explore policy frameworks for advancing zero-waste practices and circular economy approaches.

The workshop was inaugurated by Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and Dr. İsmail Doğan, Vice President of TÜBİTAK. In their opening remarks, both dignitaries underscored the importance of international cooperation, knowledge-sharing, and technological innovation in addressing global challenges related to waste management, resource efficiency, and environmental sustainability. Technical sessions were led by experts from the TÜBİTAK Marmara Research Center, who delivered comprehensive presentations on a range of thematic areas, including pyrolysis technologies for circular agricultural value chains, advanced membrane systems for water and wastewater treatment, application of artificial intelligence in monitoring marine and coastal litter, molecular tools for biodiversity assessment, hydrogen production through biomass gasification,



and innovative recycling techniques for used oils.

The workshop attracted broad participation from research institutions, government agencies, international organizations, and environmental stakeholders across COMSATS Member States and partner countries.

Through this initiative, COMSATS reinforced its commitment to promoting knowledge exchange, enhancing technical capacities, and supporting the transition toward circular and resource-efficient economies across the Global South.

### b. International Workshop on Artificial Intelligence and the SDGs

In a significant capacity-building initiative at the nexus of emerging

technologies and sustainable development, COMSATS, in partnership with the Islamic World Educational, Scientific and Cultural Organization (ICESCO), the Royal Scientific Society (RSS), and the Princess Sumaya University for Technology (PSUT), convened a high-level international training workshop titled “Applications of Emerging Technologies and Artificial Intelligence for Advancing Science, Technology and the Sustainable Development Goals (SDGs)” on 15 October 2025 in Amman, Jordan.

The event brought together distinguished experts, policymakers, and academics from Iran, Bangladesh, Benin, Nigeria, Jamaica, Pakistan, Morocco, and Jordan, representing a diverse range of sectors including industry, healthcare, climate resilience, and digital governance. It served as a strategic platform for







advancing dialogue on the role of artificial intelligence (AI) and emerging technologies in accelerating progress toward the Sustainable Development Goals (SDGs).

Technical sessions encompassed a broad spectrum of applications, including AI-driven solutions in biomedical sciences, industrial optimization, energy systems, climate analytics, and natural resource management, alongside discussions on ethical and regulatory dimensions of AI governance.

The workshop facilitated knowledge exchange and strengthened collaboration among COMSATS' Network of Centres of Excellence, while reinforcing the mandate of the COMSATS Centre for Climate and Sustainability (CCCS) to leverage frontier technologies for advancing climate resilience and sustainable development across the Global South.

#### c. Virtual Coordination Meeting of CCCS Member Institutions

Building upon the strategic direction outlined during the 24th and 25th

Meetings of the COMSATS Coordinating Council, the CCCS convened a virtual coordination meeting on 2 June 2025, bringing together focal persons and domain experts from across its network of Member Institutions.

The meeting provided an opportunity to review progress on previously endorsed resolutions and to identify actionable pathways for their implementation.

Participation included representatives from several COMSATS Centres of Excellence, including the Tianjin Institute of Industrial Biotechnology (China),



the Council for Scientific and Industrial Research (Ghana), Institut Teknologi Sepuluh Nopember (Indonesia), the Industrial Technology Institute (Sri Lanka), the Royal Scientific Society (Jordan), the National Research Centre (Egypt), the Tanzania Industrial Research and Development Organization, and the National Mathematical Centre (Nigeria), among others.

Deliberations focused on operationalizing CCCS research clusters, formalizing the nomination of Liaison Officers, and facilitating the submission of subject-matter expert profiles for inclusion in the CCCS Expert Pool and Resource Directory.

The meeting concluded with a proposal to institutionalize regular virtual coordination sessions, aimed at enhancing responsiveness, strengthening technical collaboration, and ensuring sustained, results-oriented engagement across the COMSATS Network of Centres of Excellence.

### Strategic Alliances and Institutional Partnerships

COMSATS Centre for Climate and Sustainability (CCCS) further expanded its portfolio of strategic collaborations with leading international research and development partners, reinforcing COMSATS' role as a facilitator of science-based cooperation across the Global South.

A significant milestone was the formalization of cooperation between COMSATS and the China–Pakistan Joint Research Centre on Earth Sciences (CPJRC) through the signing of a Memorandum of Understanding on 27 November 2025. The agreement aims to advance collaboration in key areas including climate change, sustainable development, and earth sciences. This engagement was further consolidated through a high-level meeting held at the COMSATS Secretariat on 24 December 2025 between Ambassador



Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and Prof. Hong Tianhua, Executive Director CPJRC. Discussions focused on aligning CPJRC's technical expertise with CCCS programmes, particularly in climate adaptation, disaster risk management, and scientific capacity-building for COMSATS Member States. CPJRC also extended an invitation to COMSATS to participate as a co-organizing partner in the International Training Course on Disaster Risk Reduction and Green Development for the China–Pakistan Economic Corridor (CPEC), scheduled for June 2026 under the ANSO Conference Programme.

Engagement with Welthungerhilfe (WHH) was further strengthened. On 22 October 2025, Mr. Mathias Mogge, Secretary General and Chief Executive Officer of WHH, visited the COMSATS Secretariat to review ongoing areas of cooperation

in food security, climate resilience, and sustainable development. The discussions explored opportunities for enhanced collaboration in climate-risk analytics, nature-based solutions, and technology-enabled approaches to community resilience. Building on this engagement, COMSATS and WHH jointly contributed to a series of side events at COP30, facilitating dialogue on climate adaptation and sustainable agri-food systems.

Cooperation with The World Academy of Sciences (TWAS) also progressed following the appointment of Prof. Marcelo Knobel as Executive Director. Ambassador Dr. Zakaria held a virtual consultation with Prof. Knobel on 4 March 2025 to identify avenues for strengthening institutional collaboration. This engagement was sustained through Prof. Knobel's participation in key COMSATS platforms, including the 3rd Meeting of





the Technical Advisory Committee (TAC) and the High-Level Forum on Quantum Science and Technology.

In addition, COMSATS advanced its engagement with international academic institutions through hosting a delegation from Robert Gordon University (RGU), Aberdeen, Scotland, on 16 April 2025. The visit provided a platform to explore collaborative opportunities in research, higher education, and innovation across priority domains including health sciences, computing, engineering, and the creative industries.

Collectively, these strategic engagements reflect CCCS' continued commitment to fostering institutional partnerships, strengthening scientific collaboration, and advancing coordinated responses to global development challenges through inclusive and technology-driven approaches.

### Gender and Inclusion in Climate Science

In observance of the 10th Anniversary of the International Day of Women and Girls in Science (IDWGS) on 11 February 2025, the COMSATS Centre for Climate and Sustainability (CCCS) convened a high-level webinar titled "Unpacking STEM Careers: Her Voice in Science." The event served as a strategic platform to recognize the contributions of women in science, technology, engineering, and mathematics (STEM), while advancing dialogue on structural challenges affecting women's participation and leadership in these fields.



The webinar featured distinguished contributions from H.E. Ms. Shaza Fatima Khawaja, Minister of State for IT and Telecommunications, Pakistan; Prof. Dr. Quarraisha Abdool Karim, President of The World Academy of Sciences (TWAS); and Ms. Aban Marker Kabraji, Senior Regional Advisor for Climate and Environment at UNEP Asia-Pacific. Dr. Mehwish Qayyum Durani, Head of CCCS, conveyed the Minister's message and highlighted global trends indicating that women constitute approximately 34% of the STEM workforce, with significantly lower representation in leadership positions within technology sectors.

The panel discussion brought together scientists and academics from Jordan, Bangladesh, Türkiye, and Malaysia, who shared perspectives on structural barriers, mentorship frameworks, and policy interventions aimed at enhancing women's participation in STEM and climate-related research.



### Observance of Global Climate Days

During the reporting period, CCCS co-led the observance of key global climate days in close collaboration with the Ministry of Climate Change and Environmental Coordination (MoCC&EC), the Ministry of Foreign Affairs (MoFA), and a range of national and international partners, reinforcing COMSATS' alignment with the United Nations' global climate agenda.

International Mother Earth Day was commemorated on 22 April 2025 through a symbolic tree plantation ceremony at the COMSATS Secretariat in Islamabad, led by Ambassador Dr. Mohammad Nafees Zakaria. Aligned with the global theme "Our Power, Our Planet," the observance reaffirmed COMSATS' commitment to environmental stewardship and sustainable practices. In his remarks, Ambassador Zakaria emphasized that meaningful environmental transformation is driven by individual responsibility, supported by collective civic engagement and institutional coordination.

World Environment Day was marked with a high-level national seminar held on 20 June 2025 at the NDMA Auditorium in Islamabad, under the theme "Bridging the Climate-Adaptation Divide Across the Food-Water-Agriculture Nexus." Organized in collaboration with MoCC&EC, NDMA, ECOSE, NDRMF, ICARDA, WHH, and FACE, the seminar convened over 200 high-level participants, including Ambassadors and Deputy Heads

of Mission from Malaysia, Kazakhstan, Ethiopia, Sri Lanka, Yemen, Turkmenistan, Sudan, Somalia, Syria, Tunisia, and Azerbaijan, reflecting strong diplomatic engagement and international support.

These observances provided important platforms for policy dialogue, knowledge exchange, and multi-stakeholder engagement, contributing to the alignment of COMSATS' initiatives with global climate priorities.

### **CCCS Member Institutions Review Progress and Strengthen Coordination in Virtual Session**

A virtual coordination meeting of experts from the Member Institutions comprising the CCCS network was organized by representatives of the CCCS Secretariat on 2nd June 2025 with the objective of assessing progress on previously endorsed resolutions and formulating actionable pathways for their implementation. Participants from COMSATS Centres of Excellence included Prof. Jibin Sun (Tianjin Institute of Industrial Biotechnology, China); Dr. Daniel Asenso-Gyambibi and Dr. Stephane 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); Dr. Aiman El-Sayed (National Research Centre, Egypt), alongside representatives from the Tanzania Industrial Research and Development Organization (TIRDO), the National Mathematical Centre (Nigeria), among others.

The meeting commenced with remarks underscoring the imperative of enhanced intra-network coherence and sustained collaborative engagement. Representing the Secretariat, Dr. Mehwish Durani, Head COMSATS Centre for Climate and Sustainability (CCCS) highlighted CCCS's growing international footprint, including

participation at the Conference of Parties as UNFCCC Observer IGO and technical exchanges with TWAS, while emphasizing substantive cooperation among the Centres of Excellence (CoEs).

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 implementation 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.

### **COMSATS Internet Services (CIS)**

COMSATS Internet Services (CIS) is the pioneer Internet Service Provider (ISP) in Pakistan. It was established in 1995 by COMSATS as a project, which was subsequently notified vide COMSATS notification dated 12th February 1999.

CIS offers a diversified portfolio of services, including wireless broadband, domain registration and web hosting, on-demand broadband, data center services, video conferencing, website designing and development, search engine optimization (SEO), virtual private servers (VPS), networking solutions, IT training, Tele-Health services and internet-related research facilities.

CIS is currently operating in almost all major cities of Pakistan and over the last 30 years, has been recognized among the top-rated ISPs in the country. CIS operates through its Head Office situated at CIS Technology Park Building in Islamabad, with sub-offices and network nodes





established in major cities across Pakistan. All offices and nodes are structured and managed by General Managers (GMs), Deputy General Managers (DGMs), and Managers (Operations) as per the capacity of the node. These nodes function under the corporate office in Islamabad and operate under the Chief Operating Officer (COO), who reports to the Executive Director, COMSATS.

CIS serves a diverse clientele comprising prominent public and private sector organizations, well-known national and international companies and firms, software and business enterprises, foreign missions, non-governmental organizations, universities, and social development and research institutions.

CIS is a self-sustainable organization operating within the overarching framework of COMSATS under the leadership of the Executive Director, COMSATS. Its revenue is generated through the provision of internet bandwidth, value-added services and data center services to government entities and corporate organizations.

## CIS Core and Value-added Services

### CIS Core Services

CIS has nine core services known as 'The Colors of CIS'. This includes Tornado® (Wireless broadband), Hawaii™ (Domain, Hosting, and VPS) and COMSpeed™



(Optical Fiber Connectivity). Our value added services include Hurricane™ (On-demand broadband), Prism™ (Website development), Viacon™ (Video conferencing), COM meeting™ (Web Conferencing Service), COMSATS Innovation- IOT and ComClinic™ which is a brand name for Tele-health service delivered by CIS to the people living in underdeveloped and scattered areas of Pakistan.

### Data Centers

CIS operates well-equipped data centers in Islamabad and Lahore, offering a wide range of services including Virtual Private Servers (VPS), domain registration, website hosting, and co-location services such as server and rack space for customers. Hosting services are

available on both Windows and Linux platforms. An expanded data center infrastructure, equipped with state-of-the-art technologies, is operational at the CIS Technology Park Building in Islamabad to serve existing and potential customers. The data center has an overall capacity of 1,550 square feet and can accommodate approximately 45 server racks, each with a capacity of 42U. IPv6 has been fully implemented in accordance with international standards.

The facility is equipped with precision cooling systems along with humidity control mechanisms to ensure optimal operating conditions. Comprehensive safety measures have been adopted, including fire suppression systems supported by a four-stage fire alarm mechanism. Power reliability is ensured through an N+1 electrical system,





comprising uninterruptible power supplies (UPS) and backup electric generators. The data center is further secured by a robust cyber security framework, featuring round-the-clock surveillance, biometric access control systems, and advanced firewalls deployed using Huawei and Juniper technologies.

During the year 2025, CIS data center, Islamabad has been upgraded and for cyber security prospective, CIS established Security Operation Center (SOC) with dedicated team of Analysts and Manager (SOC) & GRC to implement new and advance technologies for the safeguard of data center services and real time monitoring.

### Video Conferencing

During the year CIS 2025, CIS conducted and arranged video conferencing platforms for potential customers as per requirement and user demand including modified VC platforms to meet the customer requirements. In addition, CIS maintains well-equipped, in-house video conferencing studios to support high-quality and reliable communication.

### CIS Tele-Health

COMSATS Internet Services is the pioneer in introducing and establishing Tele-Health Services in Pakistan. Tele-Health is the use of digital information and communication technologies to

access health care services remotely and manage primary and specialist health care at patient's door step. Initially, CIS established a network of rural Tele-Health setups at Federal & Provincial level to advocate the efficiency and effectiveness of system. The facility was extended in 2017 by establishing 03 clinics in Mardan, Mansehra & Swabi districts.

In 2020, CIS & PPHI-Balochistan signed an agreement for the establishment of rural Tele-Health clinics in the far flung areas of Balochistan. As of now, 34 Tele-Health clinics have been established so far. These clinics are located at Quetta, Gwadar, Noshki, Dera Bugti, Mastung, Qila Abdullah, Washuk, Jaffarabad, Dukki, Sibi, Kachhi, Sohbatpur, Musakhail, Punjgour, Chagai, Dera Bughti, Sohrab, Lasbela, Quetta, Turbat, Kharan, Harnai, Naseerabad, Qilla Saifullah, Awaran, Kohlu, Zhoub, Kalat, Chaman, Lorlai, Barkhan, Sheerani, Jhal Magsi and Kuzdar districts.

All established centers are fully equipped with the latest digital diagnostic equipment including vital sign monitor, digital stethoscope, examination camera, ENT & derma scope and ultrasound probe for onsite diagnostic. A centralized Tele Consult software portal is available for entering data both at clinic end and respective health specialist. Similarly, to run general & specialist consultation at all established rural sites, CIS established Tele-Health Resource Center at Islamabad

where a panel of doctors is available 5 days in a week to provide online consultation including specialist consultation (General, Gynea & Obs, Pediatrician & Derma) to the patients visiting these clinics.

The use of technology to deliver health care has proven several advantages for the local community, including cost savings, convenience, and the ability to provide care to people with mobility limitations, or those in rural areas who don't have access to a local doctor or clinic. This facility has been appreciated not only by local population but at government level because of the fact that this has enabled the local population to get medical & specialist health care services at the door step, free of cost. This has even saved long journey to travel to city and money saving as all the services are free for them. It was once only a dream for medical and specialist professionals in Islamabad to provide the most cutting-edge digital diagnostic health services to residents of such remote places via internet.

### Events

In 2025, CIS actively participated in numerous national events where its products and services were showcased and promoted. The overall response received from the visitors was highly positive and encouraging, reflecting strong interest and trust on CIS products and services.

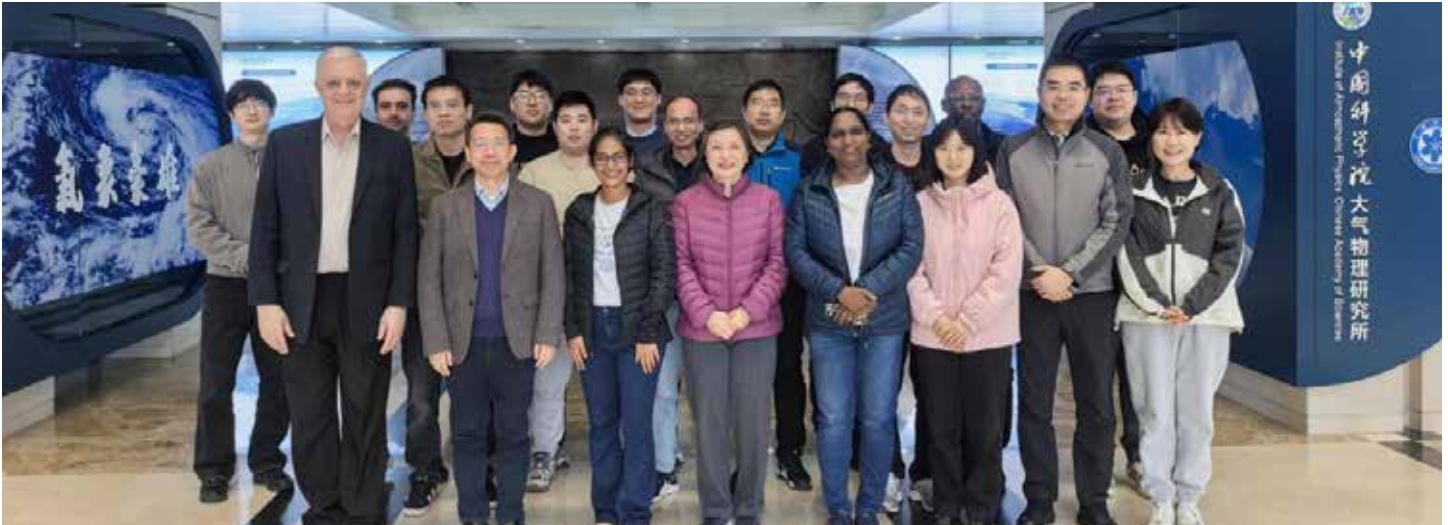


## 7. ACTIVITIES OF COMSATS CENTRES OF EXCELLENCE

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| • International Centre for Climate and Environment Sciences (ICCES), China        | 92  |
| • National Mathematical Centre (NMC), Nigeria                                     | 98  |
| • COMSATS University Islamabad (CUI) , Pakistan                                   | 99  |
| • International Center for Chemical and Biological Sciences (ICCBS), Pakistan     | 106 |
| • The Scientific and Technological Research Council of Türkiye (TÜBİTAK), Türkiye | 108 |

# ACTIVITIES OF COMSATS CENTRES OF EXCELLENCE

*A group of twenty-five S&T/R&D and higher education institutions from different developing countries, predominantly COMSATS Member States, is affiliated with COMSATS constituting its Network of International S&T Centres of Excellence. The Network serves as COMSATS' technical resource for South-South cooperation, in line with these institutions' mandates of having programmes of scientific research and development. This chapter covers reports received from COMSATS' Centres of Excellence, as well as news of some Centres covered in COMSATS Newsletter over the span of the year.*



## International Centre for Climate and Environment Sciences (ICCES), China

The International Center for Climate and Environment Sciences (ICCES) focuses its research on the key scientific problems relating to global climate and environmental changes.



Established in 1991, ICCES is devoted to establishing the cooperative and innovative research center in the area of climate and environment sciences, and provide services to the developing countries with scientific support, advisory, and capacity building.



### Capacity-Building Activities

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

From June 24 to 26, 2025, ICCES organized the International Workshop on "Climate Change Challenges and Sustainable Development in the Global

South." The workshop focused on the challenges faced by developing countries in addressing climate change while pursuing sustainable development goals.

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





## Prof. Zhaohui LIN

Director

International Center for Climate and Environment Sciences (ICCES), China

Climate change has a profound impact on global weather patterns, altering the distribution of temperatures and precipitation. Such changes can lead to more frequent and intense extreme weather and climate events, including wildfires, typhoons, heatwaves, floods, droughts, and storms. The United Nations 2030 Agenda for Sustainable Development identifies climate change as “one of the most significant challenges of our time” and highlights that “its adverse effects impede the ability of countries to achieve sustainable development goals.” Therefore, it is crucial that we take decisive action to tackle climate change and its impacts. In this context, international organizations like COMSATS play a vital role in addressing global climate change, a common challenge for humanity. COMSATS has established a network of 25 Centres of Excellence—highly reputed centres of science and technologies in the South—which are playing leading roles in their respective areas of specialization. ICCES highly appreciates the significant role of this network. In 2026, ICCES will continue to engage in high-level cooperation with the COMSATS network to further advance joint efforts in research projects, capacity building, knowledge sharing, and the exchange of research personnel in the field of climate and environmental sciences, in order to achieve sustainable development goals in the South.

climate change. Dr. Max Paoli from TWAS Secretariat also gave a keynote address on the role of science and education in advancing climate justice. Participants 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 and so on.

The workshop invited Dr. Sri Fatmawati from Institut Teknologi Sepuluh Nopember (ITS), 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” which explored how natural product chemistry can contribute to sustainable climate solutions. Dr. 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 collaboration with ICCES.

### 20th CAS-TWAS-WMO Forum International Conference

The 20th CAS-TWAS-WMO Forum (CTWF) International Conference was successfully held in Beijing from October 27 to 29, 2025. Prof. Marcelo Knobel, Executive Director of TWAS, delivered a speech at the opening ceremony. He underscored the importance of fostering North–South cooperation through scientific and technological collaboration between developing and developed countries. He pointed out that this conference was a prime example of such cooperation. He also mentioned that ICCES has made contributions to advancing scientific progress in developing countries. The opening ceremony was chaired by Prof. Zhaohui Lin, Director of ICCES.

Centered on the theme of “Observation, Simulation, and Prediction of Land Surface–Ecology–Hydrology Processes





under Climate Change,” the conference featured keynote speeches from leading global experts. Prof. Dennis Lettenmaier, a member of the U.S. National Academy of Engineering and a distinguished professor at UCLA, and an AGU fellow, spoke on the evolutionary characteristics of hydrological patterns in the western U.S. Prof. Jun Xia, a CAS academician and a professor at Wuhan University, presented on adaptive regulation of water and drought risks in China’s eastern monsoon region under global change. Prof. Shakeel Ahmed, a TWAS Fellow, shared insights on sustainable groundwater management integrating earth science and climate information. Prof. Xinzhong Liang, a University of Maryland professor and a fellow of AGU and AMS, delivered a talk on extreme precipitation prediction and mechanism analysis based on CWRP downscaling. Prof. Yongjiu Dai, a CAS academician and a professor at Sun Yat-sen University, discussed the application of the Common Land Model (CoLM) in weather and climate research and simulation.

The conference attracted more than 100 participants, including 50 international representatives from 21 countries, including the United States, Italy, Japan, South Korea, Brazil, India, Thailand, Vietnam, Laos, Pakistan, and Iran. Among them, 12 participants were from the Least Developed Countries (LDCs). The conference also drew participation from TWAS Fellows and TWAS Young Affiliates.

A total of 43 academic reports and 30 poster presentations addressed cutting-edge issues in land–ecology–hydrology interactions under climate change. Participants from across the Global South—including Asia, Africa, and Latin America—exchanged views on pressing regional challenges such as floods, droughts, water security, and ecosystem responses under climate change.

### AIESMx Project Meeting 2025

ICCES organized the AIESMx BRICS Project Meeting 2025 from October 30 to November 1, 2025. The meeting, titled the “Annual Meeting on Artificial Intelligence and Earth System Modeling toward Detection of Extreme Climate Events in the BRICS,” aimed to advance research on extreme climate events through academic exchange and cooperation among BRICS countries. Over 20 experts from Brazil, India, and China gathered to discuss topics such as Earth system modeling, extreme climate events, land use and cover changes, and the integration of machine learning with climate simulations.

Researchers from Brazil and India



presented their latest findings. Dr. Paulo Nobre from the National Institute for Space Research, Brazil, highlighted Brazil’s progress in studying extreme events, such as heatwaves and droughts, the climate impacts of Amazon deforestation, and sub-seasonal to seasonal predictions of extreme events. Dr. Chou Sin Chan, also from the National Institute for Space Research, Brazil, focused on the influence of urbanization and air-sea interactions on extreme heat events in Brazil using regional climate models. Dr. Michel Pompeo Tcheou from the Universidade do Estado do Rio de Janeiro,





Brazil, contributed to the discussions with his expertise in related fields. Dr. Ayantika Dey Choudhury from the Indian Institute of Tropical Meteorology shared India's advancements in climate model development, climate simulation, and changes in extreme events in monsoon regions.

The meeting concluded with a discussion on the project's achievements and future plans. Representatives from all three countries agreed that significant progress had been made in the study of extreme climate events, especially in integrating artificial intelligence with Earth system models.

#### **Collaboration on Enhancing Water Resource Management for Climate-Smart Agriculture in the Lancang-Mekong River Sub-basin**

The project titled "Enhancing Water Resource Management for Climate-Smart Agriculture in the Lancang-Mekong River Sub-basin," jointly proposed by ICCES and the Hydro-Informatics Institute of Thailand, has secured funding from the "Lancang-Mekong River Basin Cooperation Special Fund."

The project focuses on analyzing the impacts of climate change on water resources in the Lancang-Mekong River Sub-basin and developing adaptive water management and agricultural technologies. It aims to promote

climate-smart agricultural techniques to improve water use efficiency and crop resilience. Additionally, the project will conduct technology demonstrations and dissemination within the sub-basin to enhance local farmers' water use efficiency and agricultural productivity.

On October 29, 2025, ICCES organized a project kickoff meeting in Beijing, attended by project members from China, Thailand, and Laos. Participants engaged in detailed discussions on the specific work plans for 2026 and 2027, identified typical research sub-basins, and clarified the tasks of each partner. These tasks include obtaining climatic and hydrological data from the Lancang-Mekong River Sub-basin, arranging field surveys and capacity-building training, and preparing relevant data analysis and assessment reports.

#### **International Training Workshop on "Enhancing Capabilities to Address Extreme Coastal Weather and Climate"**

From September 9 to 12, 2025, the International Training Workshop on "Enhancing Capabilities to Address Extreme Coastal Weather and Climate" (INCAP2025) was successfully held in Bangkok, Thailand. The event was jointly organized by ICCES and the Hydro-Informatics Institute (HII) of Thailand. It received strong support from the Chinese Academy of Sciences (CAS) and the Thailand Science Research and Innovation

(TSRI).

The opening ceremony was attended by Dr. Chalita Srinuan, representing TSRI, Dr. Royboon Rassamethes, Director of HII, and Prof. Zhaohui Lin, Director of ICCES. Prof. Lin introduced the INCAP project, which was launched in 2019. This year marked the fifth China-Thailand joint training workshop, focusing on the challenges of observing and predicting extreme coastal weather and climate. The workshop aims to enhance researchers' capabilities and provide support for climate change adaptation. This year also marks the 50th anniversary of China-Thailand scientific cooperation, which is expected to further strengthen bilateral collaboration.

The workshop invited experts and scholars from China, Singapore, and Thailand to conduct in-depth lectures and exchanges on topics such as the observation, prediction, impact assessment, and response strategies for extreme coastal weather and climate.

Participants also visited the Thailand Geo-Informatics and Space Technology Development Agency to gain insights into the critical applications of geospatial data in coastal disaster prevention and prediction. They further visited the Eastern Water Resources Development and Management Company to explore practical applications in disaster resilience and water resource management. The workshop attracted over 100 participants from more than 40 institutions across Thailand, including government departments, universities, research centers, and industry enterprises.

#### **Visits**

##### **ICCES Delegation Visited TWAS Secretariat to Strengthen International Scientific Collaboration**

From November 24 to 25, 2025, the ICCES delegation visited the TWAS Secretariat in Trieste, Italy on the invitation of Prof. Marcelo Knobel, Executive Director, The



World Academy of Sciences (TWAS). The visit aimed to explore future collaborations and enhance existing partnerships in climate and environmental sciences with TWAS.

During the visit, Prof. Zhaohui Lin highlighted ICCES's progress and key achievements in the field of climate and environmental sciences, including organizing high-level international conferences, such as the CTWE, and conducting various international cooperation projects to address climate-related disasters in developing countries. These efforts aim to jointly tackle climate change and promote sustainable development in the global South.

Prof. Knobel introduced the history and the mission of TWAS, as well as its efforts to support sustainable development in the Global South, through scientific research, education, and policy initiatives. Prof. Knobel emphasized the role of TWAS in promoting South-South cooperation and capacity building in developing countries, particularly through its network of Centres of Excellence, including ICCES. He also highlighted TWAS' commitment to fostering young scientific leaders through programs such as the TWAS Young Affiliates and the TWAS-UNESCO Associateship Scheme.

In addition to the discussions with TWAS Secretariat for further collaboration in climate and environmental sciences, the delegation also visited several institutions

in Trieste, including the University of Trieste, the International Centre for Genetic Engineering and Biotechnology (ICGEB), and the National Institute of Oceanography and Experimental Geophysics (OGS). These visits provided opportunities to explore collaborative projects in fields such as climate and environmental sciences, oceanography and biotechnology.

#### **Professor Zhaohui Lin Participated in Thailand-China Science and Technology Collaboration Conference**

On November 12, 2025, Prof. Zhaohui Lin, Director of ICCES, participated in the "Conference on Thailand-China Science and Technology Collaborations under Her Royal Highness's Initiative." The event was organized by the Princess Sirindhorn IT Foundation (PSIT), the Science Society of Thailand, and Chulalongkorn University to celebrate the 70th birthday anniversary of Her Royal Highness Princess Maha Chakri Sirindhorn and the 50th anniversary of Thailand-China diplomatic relations.

Climate science has long been a key area of close collaboration between China and Thailand, with the ICCES serving as an important partner for Thai institutions in climate and environmental research. Professor Lin was invited to deliver a keynote speech titled "Earth System Model Development for Climate Studies". His presentation highlighted the China's Earth System Numerical Simulation Facility, and the latest advancements in Earth system



modeling and their applications in climate research. The visit further strengthened the collaboration between ICCES and Thai research institutions in the field of climate and environmental sciences.

#### **Delegation from Queensland University of Technology Visits ICCES**

On November 17, 2025, a delegation from Queensland University of Technology (QUT) visited ICCES to discuss cooperation in Discussing cooperation in the fields of urban science and climate adaptation.

The visit began with a morning seminar titled "Reimagining Smart and Sustainable Cities with Urban AI," led by Professor Tan Yigitcanlar, a leading figure in urban science and the head of the Urban AI Hub at QUT. He introduced QUT's pioneering research on using AI to address urban challenges and promote sustainable urban development. The key topics included Quantum Cities, responsible innovation, and ecological adaptive intelligence theory.

In the afternoon, the QUT delegation visited the Earth System Numerical Simulation Facility at Institute of Atmospheric Physics (IAP), Miyun Campus. Discussions focused on potential collaborations in Earth system modeling, GeoAI, climate extremes, and urbanization



impacts. Both sides shared their research experiences and identified initial areas of cooperation, laying the groundwork for future joint projects.

This visit marked a significant step in strengthening academic ties between QUT and ICCES. It highlighted the potential for collaborative research in urban science, AI, and climate adaptation, aiming to drive innovative solutions for smart and sustainable cities.

### **Delegation from Hydro-Informatics Institute, Thailand Visited ICCES**

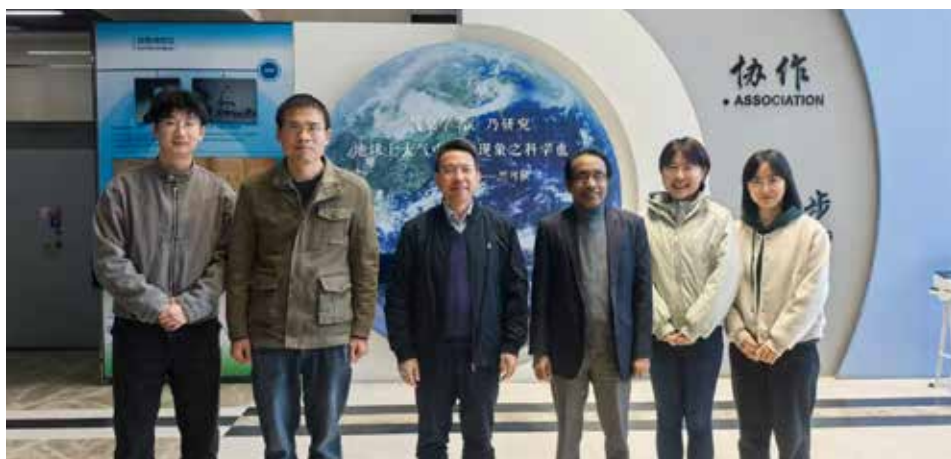
On May 29, 2025, a delegation from Hydro-Informatics Institute, Thailand (HII) visited ICCES and the Miyun Campus of the Institute of Atmospheric Physics (IAP), Chinese Academy of Sciences. The visit aimed to strengthen cooperation between the two institutions and explore opportunities for joint research and development in climate and environmental sciences.

The HII delegation was led by Dr. Royboon Rassameethes, Director of HII, and included 10 members, comprising senior researchers and officials from HII. Ms. Pasupha Chinvarasopak, the Science, Higher Education, Research, and Innovation Counsellor from the Royal Thai Embassy in China, also participated in the visit.

During the visit, both parties discussed the establishment of a China-Thailand Joint Laboratory to jointly address global climate and environmental challenges. The collaboration will focus on high-resolution Earth system modeling, climate disaster prediction, and climate service research tailored to the characteristics of the Southeast Asia region. The goal is to support regional climate resilience and sustainable development.

### **Sri Lankan Professor Visits ICCES to Explore Marine Science Collaboration**

In November 2025, Prof. Sirimal



Premakumara from the General Sir John Kotelawala Defense University in Rathmalana, Sri Lanka, visited ICCES. Prof. Premakumara ever served as the member of the COMSATS Coordinating Council, and former chairperson of the Industrial Technology Institute (ITI) in Sri Lanka, one of COMSATS' Centre of Excellence.

During the visit, both parties introduced their respective strengths in the field of marine and earth system science. The discussions focused on the potential for collaboration, including the establishment of a joint Marine Science Research Center, the initiation of joint research projects, and the facilitation of academic exchanges. These proposed collaborations aim to enhance mutual understanding and capacity in marine science research.

The visit marked a significant step in fostering academic exchanges and cooperation between ICCES and institutions in Sri Lanka. It laid the foundation for future joint efforts in addressing marine science challenges and promoting sustainable development in the region.

### **PhD Student from Kazakhstan Conducted Research Visit at ICCES**

From September 15 to October 12, 2025, Laura Ryssaliyeva, a PhD student at Al-Farabi Kazakh National University (KazNU) from Kazakhstan, conducted a

research visit at ICCES, at the Institute of Atmospheric Physics, Chinese Academy of Sciences (CAS) in Beijing. Under the supervision of Prof. Zhaohui Lin, this visit was an integral part of the student's PhD program and supported the project titled 'Risk assessment of atmospheric droughts and development of an early warning system for Northern Kazakhstan using machine learning.'

ICCES and KazNU are both Centres of Excellence of COMSATS, and has signed MoU on the collaboration in climate and environmental sciences in 2018. Prof. Zhaohui Lin has also been serving as the foreign supervisor for PhD students in KazNU. This collaboration not only supports the academic development of students like Laura but also enhances COMSATS' efforts in capacity building and talent development in the field of climate and environmental sciences.

During the visit, Laura focused on generating future projections of meteorological droughts in Northern Kazakhstan. This involved processing regional and global climate-model datasets, computing key drought indices under Shared Socioeconomic Pathway (SSP) scenarios, and comparing them with the historical baseline data from 1990 to 2024. The work also included producing spatial maps and time-series analyses to evaluate the dynamics of droughts over time.

## National Mathematical Centre (NMC), Nigeria

The National Mathematical Centre (NMC), Nigeria, is an inter-university organization that promotes research and capacity-building in mathematical sciences.



NMC was established in 1989, inter alia, to train and develop high quality human resource in Mathematical Sciences, for enhancing students' performance in Mathematics and Mathematical Sciences at all levels of Nigerian education system.

### Capacity-Building Activities

#### Research Oriented Course (ROC) in Renewable Energy: Physics and Application to Real Life Problems

The Research Oriented Course (ROC) in Renewable Energy: Physics and Application to Real-Life Problems was held from January 19 to 31, 2025. There is a critical need for the development of novel eco-friendly materials in the renewable- energy field as the world continues to experience significant environmental changes due to the widespread consumption of fossil fuel which has in no small measure resulted in global warming and carbon-dioxide emissions.



The deliverable from the ROC in Renewable Energy Physics and Application to Real Life Problems were (i) The research on lead-free  $\text{CsSnI}_3$  PSCs using one-dimensional solar capacitance simulation (SCAPS-1D) tool; (ii) Research on Green synthesis of some selected transition metal oxide nanoparticles for energy storage applications in supercapacitors.

**Findings:** The major finding in this work was the feasibility of reaching commercial thresholds with regards to the use of friendlier alternatives for the manufacturing of Perovskite Solar cells: this has been shown from this research work with the aid of a simulation device SCAPS. It is worth stating that a vast spectrum of factors which plays a critical role in the overall performance of perovskite solar cells were analyzed in order to recommend precise pathways for optimal performance of a Lead-free for the

manufacturing of PSCs.

#### Training Workshop on SageMath

A Training Workshop on SageMath was held from June 29 to July 11, 2025, in a hybrid mode with both physical and virtual participation. The workshop aimed to improve understanding among the general public on the use of SageMath as a tool for solving mathematical problems.

The course covered various applications of SageMath, providing participants with practical knowledge and hands-on experience in mathematical computation and problem-solving.

#### International Conference and Advanced Workshop on Mathematical Modeling

National Mathematical Centre (NMC), University of Ibadan, and the Obafemi







Awolowo University Research Group on Mathematical Modeling and Simulations on Complex Systems and Applications organized the International Conference and Advanced Workshop on Mathematical Modeling and Simulation of Complex Systems and Applications from July 21 to 25, 2025.

#### **International Workshop and Conference on Mathematical Sciences and Optimization (ICMSO 2025)**

National Mathematical Centre (NMC), the Association on Mathematical Analysis and Optimization, and Covenant University organized the International Workshop and Conference on Mathematical Sciences and Optimization (ICMSO 2025).

#### **Major Research Activities/New Initiatives**

##### **GovOptix-NG — A National Governance Innovation Engine for Nigeria**

The researchers at the National Mathematical Centre, founded a platform called GovOptix-NG, which is a powerful AI-driven governance platform designed to improve transparency, accountability, and cost-efficiency across Nigeria's public and private sectors.

It features blockchain verification, live

dashboards, smart procurement tracking, and real-time analytics to support informed decision-making and evidence-based reforms. The platform can serve all levels of government, civil society, and development partners, offering tools for budget tracking, digital ID management, dispute resolution, and generating sectoral performance review. It also includes a Training Academy for building digital governance capacity nationwide.

#### **Awards**

##### **International Awards and Recognition – International Olympiads 2025**

Identification and grooming of future scientists for Nigeria is one of the core mandates of the NMC. To achieve this, the NMC do conduct series of trainings for selected high school students and present same in International Olympiads yearly. At the 2025 International Olympiads, Nigeria representatives won the following prizes and awards of Pan African Mathematics Olympiad (PAMO) and International Physics Olympiad (IPhO):

1. Mathematics - Pan African Mathematics Olympiad (PAMO), Botswana : One gold medal, and two silver medals
2. Physics – International Physics Olympiads (IPhO), Paris (France):

Thales STEM award. The Thales STEM award is worth 5,000 Euros and a year's mentorship.

#### **COMSATS University Islamabad (CUI), Pakistan**

COMSATS University Islamabad is a public university established in year 1998 as (formerly) COMSATS Institute of Information Technology – flagship project of the Commission of Science and Technology for Sustainable Development in the South (COMSATS). The University has now grown exponentially with seven physical campuses with a student's body of over 36,165 students including 210+ International students, teaching faculty of 1,964 (including 1,066 Ph.D.) and offering 116 programmes in 23 academic departments at undergraduate and postgraduate level.



#### **Technologies Developed/ Transferred**

During 2025, Interdisciplinary Research Centre in Biomedical Materials IRCBM at CUI Lahore Campus developed and validated a range of indigenous technologies across biomedical,

biomaterial, and industrial domains to support healthcare localization and industry uptake. Key developments included surgical adhesive glues, WaxHeal wound-healing material, ACTEBR bone fillers, neurotransmitter detection technology, extracellular matrix biomaterial, and SustainHeal-Mend putty.

The Centre also advanced halal collagen nutraceuticals, silk-based materials for cosmetic and food applications, bacterial cellulose, and multiple diagnostic and biosensing technologies (MycoSure and QuickSense). Industrial innovations included composite 3D-printing filaments, NanoWeave and NatDura advanced materials, and the Sentrode C3 product. Several technologies progressed to prototype validation, patent filing, and commercialization readiness stages (TRL-4 to TRL-6).

These developments contribute towards import substitution, medical device innovation, and strengthening local bio-industrial manufacturing capability.

### Major Research Activities/ New Initiatives

During January-December 2025, COMSATS University Islamabad (CUI) sustained strong momentum in research productivity, innovation, and international scholarly engagement, reinforcing its position as a leading research-intensive public sector university.

CUI faculty demonstrated robust research output across disciplines, supported by competitive funding mechanisms and structured research grant programs. A summary of key research performance indicators for the reporting presented in Table-1.

In parallel, the University made notable progress in strengthening its intellectual property and innovation ecosystem. Through enhanced in-house IP facilitation and researcher support, CUI continued to promote protection and commercialization



of research outputs. Till date, 125 patents have been filed out of which 48 granted.

### Highlights of New Initiatives 2025

In addition to core research activities, COMSATS University Islamabad (CUI) made notable progress in promoting innovation, applied research, and entrepreneurship through the Student Startup & Business Center (SSBC), contributing to research commercialization and industry engagement.

- Active incubation and support of multiple student-led startups across priority domains including Artificial Intelligence, Software-as-a-Service (SaaS), Agri-Tech, Green Technologies, FinTech, and Digital Services, translating academic ideas into market-oriented solutions.

Successful organization of

entrepreneurship and innovation engagement activities, including student participation in national-level seminars and structured innovation forums, providing exposure to industry experts, mentors, and startup ecosystems.

### CUI Students Participation in Entrepreneurship and Innovation Seminar at Amaani Bagh

As per directions, SSBC, CUI, Islamabad Campus successfully coordinated with Pathfinder Group and more than 27 Students of various Departments of CUI, Islamabad Campus participated in an insightful session on Entrepreneurship and Innovation Trends at Anmani Baugh, Islamabad on 23rd August 2025.

The event brought together passionate minds from different universities, students and experienced entrepreneurs. CUI Students not only got a chance to connect

| Table-1                                                        |                                 |
|----------------------------------------------------------------|---------------------------------|
| Category                                                       | Number / Value                  |
| Impact Factor Publications (National & International Journals) | 1921                            |
| Research Projects Submitted (National)                         | 552                             |
| Research Projects Submitted (International)                    | 31                              |
| Research Projects Approved (National)                          | 13 Projects worth Rs 61 Million |
| Research Projects Approved (International)                     | 6 Projects worth Rs 32 Million  |
| Proposals Received under CUI Research Grant Program (CRGP)     | 182                             |
| CRGP Projects Approved                                         | 31                              |
| Maximum Funding per CRGP Project                               | Rs. 300,000                     |





## Prof. Dr. Raheel Qamar (T.I.)

Rector

COMSATS University Islamabad (CUI), Pakistan

The year 2025 represents a period of sustained progress and purposeful engagement for COMSATS University Islamabad in advancing its mission of academic excellence, research innovation, and international cooperation. In alignment with the objectives of COMSATS and the national priorities of Pakistan, the University continued to strengthen its role as a globally connected centre of higher learning and scientific collaboration.

During the reporting period, COMSATS University Islamabad expanded its international outreach through the establishment and operationalization of academic and research collaborations with reputed institutions across multiple regions. These partnerships facilitated student and faculty mobility, joint research initiatives, and structured academic cooperation, thereby contributing to knowledge exchange and capacity-building at both national and international levels.

The University continued to register sustained growth in international student enrolment, alongside the successful graduation of students from a wide range of countries. This upward trajectory stands as a strong testament to the global confidence reposed in COMSATS University Islamabad's academic excellence, research ecosystem, and internationally competitive learning environment. In the face of global challenges, the University remained steadfast in advancing academic mobility and broadening international exposure for its high-performing students, reinforcing its commitment to global engagement.

Significant research outputs, faculty achievements, international recognitions, and capacity-building initiatives further underscore the University's commitment to excellence, innovation, and societal development. These accomplishments are a testament to the dedication of our faculty, researchers, administrative leadership, and supporting staff.

I extend my sincere appreciation to the COMSATS Secretariat, partner institutions, funding agencies, and all stakeholders for their continued cooperation and support. COMSATS University Islamabad remains firmly committed to strengthening international collaboration, fostering research-led development, and contributing effectively to the goals of COMSATS in the years ahead.

with diverse individuals but also engaged in one-to-one sessions with mentors & industrial partners. The knowledge and experience shared during these discussions were truly invaluable and will serve as a strong foundation for students' future endeavors.

### Financial Literacy Workshop Organized under Financial Inclusion Initiative

Financial literacy is an essential life skill, especially for university students who are stepping into independent financial decision-making. Understanding how to manage money, save wisely, and invest



early can help students build a secure financial future. Keeping this need in mind, a Financial Literacy Workshop was

organized under the Financial Inclusion Initiative, a startup registered with SSBC, COMSATS University Islamabad.

The workshop proved to be a valuable learning experience for students. By providing practical knowledge on budgeting, banking, digital payments, and investments, the session contributed to empowering students financially. Such initiatives play a vital role in promoting financial inclusion and preparing young individuals for a financially secure future.

- Facilitation of internationally recognized innovation competitions, such as the Hult Prize, encouraging students to develop sustainable, impact-driven business solutions aligned with global challenges.
- Emergence of notable student startup success stories, including ventures that evolved into multi-domain companies, generating internship and employment opportunities for CUI students and contributing to skills development and applied learning.

### Startup Success Story

#### *From a Student Idea to a Growing Multi-Domain Company*

Mr. Qasim Abbasi began his entrepreneurial journey during his fourth semester at COMSATS University Islamabad with a simple but ambitious vision: to build a company that delivers real value in the digital space while creating opportunities for students.

At an early stage of his startup, Qasim applied to the COMSATS Student Startup Business Center, where his company was provided with office space, mentorship, and a structured environment to grow. Starting from zero, the Business Center played a crucial role in offering the initial support that helped shape the company's foundations, from refining ideas to understanding real-world business challenges.

Over time, Qasim's startup evolved into Xposure Verse, a company now operating across multiple domains, including digital marketing, cybersecurity, and AI-driven



solutions. What began as a small student-led initiative gradually transformed into a growing business serving real clients and tackling real market problems.

One of the most impactful aspects of this journey has been Qasim's commitment to student development. Through Xposure Verse, he has provided internship and employment opportunities to more than 12–15 students from COMSATS University, helping them gain hands-on industry experience. Several interns transitioned into permanent roles, reflecting the company's focus on mentorship, skill-building, and long-term growth.

Today, Xposure Verse stands as an example of how student startups, when given the right environment and support, can grow into sustainable ventures. Qasim's journey highlights the importance of university-backed incubation programs in empowering young entrepreneurs and fostering innovation within the student community.

His success story reflects not only personal growth, but also the broader impact that student-led startups can have creating jobs, nurturing talent, and contributing positively to the entrepreneurial ecosystem at COMSATS University Islamabad.

- Implementation of capacity-building initiatives focused on entrepreneurship, business planning, pitching skills, and financial literacy, strengthening students' understanding

of innovation management, commercialization pathways, and responsible financial practices.

### Briefing Session on Business Idea Pitching at SSBC

Student Startup Business Center CUI, Islamabad successfully arranged a briefing session for new intake Batch-13 students with the aim to equip student entrepreneurs with the skills, strategies, and confidence needed to effectively pitch their startup business plans at SSBC. The session was attended by more than 100 students.

#### *Key Objectives of the Session*

- Importance of pitching in startup success
- Types of pitches: Elevator pitch vs. full investor pitch
- Common pitch formats
- Problem Statement
- Solution/Product
- Market Opportunity
- Business Model
- Competitive Analysis
- Go-to-Market Strategy
- Financial Projections

These initiatives complemented CUI's broader research agenda by fostering an innovation-driven culture, strengthening university-industry linkages, and supporting the translation of research and student innovation into practical, socio-economic impact.





## Capacity-building Activities

During the reporting period January-December 2025, COMSATS University Islamabad (CUI) placed strong emphasis on capacity-building and professional development to enhance academic quality, research competence, and institutional effectiveness. These activities were aimed at strengthening faculty skills, supporting student research, and fostering international exposure.

Trainings Conducted by Faculty Development Academy (FDA), for Faculty and Staff at CUI covering the period January-December 2025.

- Professional Development Training Program on Effective Communication Skills for OG Scale Employees of CUI Attock, Wah, Islamabad, Virtual and Principal Seat, February 20, 2025
- Professional Development Training Program on Effective Communication Skills (HoDs), April 29, 2025 CUI

Abbottabad

- Professional Development Training Program on How to Write Effective Winning Research Grants (APs), April 29, 2025 CUI Abbottabad
- Continuous Professional Development Program on Effective Communication Skills (SGs), April 29, 2025, CUI Abbottabad
- Train the Trainer Program Media Literacy to Counter Fake News on Social and Electronic Media, May 7, 2025
- Professional Development Training Program on Effective Communication Skills (HoDs), May 22, 2025 CUI Vehari
- Professional Development Training Program on How to Write Effective Winning Research Grants, (Aps) May 22, 2025 CUI Vehari
- Continuous Professional Development Training Program on Effective Communication Skills (SGs), May 22, 2025 CUI Vehari
- Special Session Train the Trainer

Program Media Literacy to Counter Fake News on Social and Electronic Media, May 22, 2025

- Train The Trainer Program 2025-Outcome-Based Education (OBE), July 15, 2025, CUI Abbottabad
- Train The Trainer Program 2025-Outcome-Based Education (OBE), July 17, 2025, CUI Attock
- Train The Trainer Program 2025-Outcome-Based Education (OBE), July 21, 2025, CUI Sahiwal
- Train The Trainer Program 2025-Outcome-Based Education (OBE), July 22, 2025, CUI Lahore
- Train The Trainer Program 2025-Outcome-Based Education (OBE), July 24, 2025, CUI Islamabad
- Excellence in Academia - Inservice Training of Faculty Members Selected in the 38th Selection Board of CUI, August 4-5, 2025, Abbottabad
- OBE Training for Chairperson of CUI, August 12-13, 2025
- Excellence in Academia - Inservice Training of Faculty Members Selected



in the 38th Selection Board of CUI, August 20-21, 2025, Lahore

- Excellence in Academia - Inservice Training of Faculty Members Selected in the 38th Selection Board of CUI, August 26-27, 2025, Islamabad
- Training of KOHA Integrated Library System for CUI Library, September 22 - 23, 2025
- Capacity Building Program for Tech and Digital Transformation for Non-Faculty, November 25, 2025, CUI Attock
- Seminar 'Protection against Harassment at Workplace', December 8, 2025
- Capacity Building Program for Tech and Digital Transformation for Faculty, December 12, 2025, CUI Attock
- Capacity Building Program for Tech and Digital Transformation for Faculty, December 18, 2025, CUI Abbottabad
- Capacity Building Program for Tech and Digital Transformation for Non-Faculty, December 18, 2025, CUI Abbottabad

## International Collaborations and Agreements

During the reporting period, COMSATS University Islamabad (CUI) significantly expanded its international academic and technological engagement through formal institutional arrangements, student exchange programs, joint research

| International Collaborations and Agreements (2025) |                                                                            |         |                                         |
|----------------------------------------------------|----------------------------------------------------------------------------|---------|-----------------------------------------|
| S #                                                | Partner Institution                                                        | Country | Nature of Collaboration                 |
| 1                                                  | University of Regina                                                       | Canada  | Student Exchange Program                |
| 2                                                  | University of Baghdad / Ministry of Higher Education & Scientific Research | Iraq    | Academic & Research Collaboration (MoU) |
| 3                                                  | Uşak University                                                            | Türkiye | Joint Research Initiative               |
| 4                                                  | Nanjing University of Information Sciences and Technology                  | China   | Academic Collaboration (MoU)            |
| 5                                                  | D-8 International University                                               | Iran    | Student Exchange Program                |

initiatives, and government-approved memoranda of understanding (MoUs). These collaborations strengthened CUI's global footprint and enhanced opportunities for academic mobility, research cooperation, and knowledge exchange.

### MoUs Approved and Operationalized

With formal approval of the Government of Pakistan, the following MoUs were signed and corresponding academic and research programs were launched:

### MoUs Submitted for Government Approval

In addition, MoUs with the following universities, organizations, and companies were submitted to the Ministry of Science and Technology for government approval:

- China (Hebei Agricultural University; Chang Jiang Industrial Company),
- Japan (Plus W Inc.),

- Iran (Islamic Azad University, Isfahan),
- Australia (Macquarie University),
- Saudi Arabia (Union of OIC News Agencies),
- Bangladesh (North South University, International Islamic University Chittagong, Daffodil International University, University of Asia Pacific),
- Malaysia (Universiti Sains Malaysia, Universiti Malaysia Terengganu),
- Kazakhstan (Rudny Industrial University),
- Indonesia (Universitas Andalas),
- Syria (Damascus University),
- United Kingdom (University of Huddersfield, Ulster University, Keele University)

### International Visits (inbound outbound)

During the reporting period January-December 2025, COMSATS University Islamabad facilitated a total of 102 international academic and institutional visits, comprising 17 outbound visits by







CUI delegations and 85 inbound visits by foreign delegations.

### International Student Admissions and Graduations

**Admissions:** Internationalization of the student body remained a key priority for COMSATS University Islamabad. During January-December 2025, 62 international students were admitted to undergraduate and postgraduate programs at CUI from 11 countries, including Afghanistan, Algeria, Bangladesh, China, Somalia, Sudan, Kenya, Palestine, Qatar, Türkiye, and Yemen. The majority enrolled in Computer Science, Electrical Engineering, Mathematics, Statistics, Management Sciences, Physics, Humanities, and Bio-sciences disciplines.

Admissions were granted under various scholarship schemes, including:

- COMSATS Scholarship Program
- Organization of Islamic Cooperation (OIC) Scholarships
- HEC Allama Muhammad Iqbal Scholarship Program

**Graduations:** Approximately 30 international students, including three PhD graduates, successfully completed their studies during the same period, reflecting CUI's growing role as a regional hub for international higher education.

### International Student Mobility and Exchange Programs

COMSATS University Islamabad places high value on academic mobility as a means of enhancing international exposure and cross-cultural learning.

These mobilities were made possible through strategic tuition fee waiver agreements with prestigious partner institutions, including the Middle East Technical University (METU) in Türkiye and Ajman University in the UAE.

**Exchange Scholars 2025:** Students were selected through a rigorous process to represent COMSATS University Islamabad on the global stage.

These exchange programmes enhanced

the participating students' cross-cultural competence, academic exposure, and international networking opportunities for participating students, reinforcing CUI's commitment to producing globally competitive graduates.

### Foreign Faculty at CUI

International faculty members play a vital role in strengthening COMSATS University Islamabad's academic excellence, research productivity, and global visibility. Through teaching, graduate supervision, research publications, and international collaborations, foreign faculty have significantly contributed to the University's internationalization and research-led development agenda during the reporting period.

### International Awards and Recognition

During the reporting period January–December 2025, faculty members and students of COMSATS University Islamabad (CUI) earned numerous national and international honors and recognitions. These awards reflect the University's commitment to excellence in teaching, research, innovation, and global academic engagement.



## Latest Statistics on Workforce and Facilities

COMSATS University Islamabad (CUI) maintains a strong academic, administrative, and research workforce supported by modern facilities across its campuses. As of December 2025, the University continued to demonstrate sustained growth in human resources, academic programs, and graduate output, reflecting its expanding role in national and international higher education.

## Publications

In year 2025, total of 1921 impact factor publications have been recorded in national/ international journals by the faculty of CUI.

## International Center for Chemical and Biological Sciences (ICCBS), Pakistan

One of the leading academic research institutions in Pakistan with a strong international standing, the International Center for Chemical and Biological Sciences (ICCBS) serves as the Centre of Excellence of COMSATS, TWAS, WAITRO, OIC and UNCSTD. Established in 1966, the Centre has also been serving as a UNESCO Category II institution since 2015.

Recently, UNESCO Chair on 'Medicinal and Bio-organic Natural Product Chemistry' has been established at ICCBS.

## Capacity-Building Events

### Global Moot on Natural Product Chemistry Concludes

The 16th International Symposium on Natural Product Chemistry (ISNPC-16) concluded on February 20, 2025 at ICCBS,



with key recommendations for advancing research in natural products.

Amid growing interest in natural products within the healthcare sector, the symposium's concluding session emphasized the urgent need to protect medicinal plants from overexploitation. It also called for the development of new herbal drugs derived from medicinal plants and natural compounds to combat major diseases.

A total of 60 scholars from 29 countries, including Germany, the USA, the UK, China, Sweden, Iran, Turkey, Sri Lanka, Indonesia, Azerbaijan, Kazakhstan, Nepal, Sudan, Nigeria, Cameroon, Algeria, and Zimbabwe, participated in the conference, while 400 scholars attended from Pakistan. The four-day global science gathering featured several brainstorming sessions, plenary lectures, invited presentations, and session lectures. Additionally, around 130 research posters were presented by young scholars. Notably, several memorandums of understanding (MoUs) were signed between ICCBS, University of Karachi, and leading institutions from various countries.

Speaking on the occasion, Prof. Dr. Farzana Shaheen thanked both national and international experts for their participation. She noted that the attendance of a large number of foreign experts reflects the symposium's role in fostering scientific collaboration beyond borders. She underscored the importance of medicinal plant research, emphasizing

that the development of plant-based drugs could help prevent several fatal diseases.

Dr. Syed Ghulam Musharraf, ISNPC Organizing Secretary, also expressed gratitude to all participants and acknowledged the contributions of faculty, staff, and students in making the symposium a success.

### 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.

## Visits

### High-level Tanzanian Delegation Visits ICCBS-Pakistan

On April 18, 2025, a high-level Tanzanian delegation led by Mr. M.C. Mtunga, Director General of the Tanzania Cotton Board, visited the International Center for Chemical and Biological Sciences (ICCBS) to explore avenues of collaboration in research and training.

The delegation was warmly received

by Prof. Dr. M. Raza Shah, Director of ICCBS, along with senior officials. The four-member Tanzanian team engaged in detailed discussions with the ICCBS leadership and research faculty, including Dr. Abdul Jabbar and Dr. Mujeeb.

During the meeting, Mr. Mtunga expressed keen interest in developing strong partnerships between the Tanzania Cotton Board and ICCBS. Discussions revolved around collaborative research initiatives in cotton and textile sciences, joint funding opportunities, and knowledge-sharing mechanisms.

“We are particularly interested in capacity building and training programs for Tanzanian researchers and professionals in the textile industry,” said Mr. Mtunga. He emphasized the importance of innovation and regional development and

acknowledged ICCBS’s role in advancing scientific progress.

Prof. Dr. Raza Shah highlighted ICCBS’s commitment to regional development and scientific excellence. “We believe this partnership can bring meaningful impact. Our doors are open for collaborative efforts aimed at knowledge advancement and problem-solving,” he noted. He also announced that ICCBS, under the TWAS program, would offer local hospitality and training for visiting Tanzanian researchers and trainees, marking a significant gesture of goodwill and support.

The visit concluded with a mutual understanding to strengthen bilateral ties and develop joint initiatives. Both sides agreed to maintain regular contact and work towards achieving concrete outcomes in the near future.

## Agreements and MoUs

### 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-Pakistan Signs MoU with UK-Based Research Company to Boost Research Collaboration**

The International Center for Chemical and Biological Sciences (ICCBS), has signed a Memorandum of Understanding (MoU) with M/s ZemBioTech Ltd., Edinburgh, Scotland, UK, to promote innovation in biotechnology and related sciences. The MoU outlines a broad scope of cooperation, including joint research in science and technology, and the exchange of academic staff, researchers, and experts for collaborative research and teaching initiatives.

MoU was signed by Prof. Dr. Muhammad Raza Shah, Director of ICCBS, University of Karachi, and Dr. M. Nadeem Kardar, Director of ZemBioTech Ltd. The online signing ceremony was held at the HEJ Research Institute of Chemistry, University of Karachi.

Speaking on the occasion, Prof. Raza Shah said the collaboration would open new avenues for joint scientific development and provide international exposure for researchers and students. Highlighting the institutional standing of ICCBS, he noted that it is among the leading centers of excellence in chemical, biological, and biochemical sciences, serving as a hub for training scholars from various countries.

Dr. Nadeem Kardar remarked that the partnership would strengthen Pakistan-UK linkages in science and technology. He added that ZemBioTech, as a research and development company dedicated to advancing innovation in biotechnology and related sciences, is keen to collaborate with ICCBS.

Under the MoU, both parties agreed to facilitate the exchange of academic staff, researchers, and experts to conduct research, teaching, and exchange of ideas.

### **The Scientific and Technological Research Council of Türkiye (TÜBİTAK), Türkiye**

Established in 1963, the Scientific and Technological Research Council of Türkiye (TÜBİTAK) became COMSATS Centre of Excellence in 2019 in lieu of its Centre – TÜBİTAK Marmara Research Centre (MAM). TÜBİTAK is an autonomous institution of the Prime Ministry. TÜBİTAK has the stated goal to develop science, technology and innovation (ST&I) policies, as well as support and conduct research and development.

TÜBİTAK remains a key institution in supporting the global transformation process and driving force behind science







## **Prof. Dr. Orhan AYDIN**

*President*

*The Scientific and Technological Research Council of Türkiye (TÜBİTAK), Türkiye*

The Scientific and Technological Research Council of Türkiye (TÜBİTAK) has a key role in mobilizing the R&D and innovation ecosystem to succeed in addressing important challenges collectively. This includes the need to address climate change, ensure a sustainable and healthy environment, increase resource efficiency, and advance societal wellbeing and security.

This responsibility leads to an encompassing vision where we streamline strategic approaches for strengthening our support for new advances at the national and international levels. The Twelfth Development Plan of Türkiye for the year 2024-2028 puts forth the vision of being “a stable, strong and prosperous Türkiye that is environmentally friendly, resilient to disasters, produces high value with advanced technology and shares income fairly in the Century of Türkiye.” The R&D and innovation ecosystem will shape the pathway of realizing this clear vision and TÜBİTAK is taking leading steps in guiding this direction domestically and beyond.

As an innovative, direction-setting, and cooperating institution working together with and guiding the R&D and innovation ecosystem, TÜBİTAK has also continued onward in being a pioneering institution in the 62nd anniversary year. As Türkiye takes determined steps in the scope of a green and digital transition towards the net-zero emissions target for the year 2053, TÜBİTAK is ensuring the mobilization of the R&D and innovation ecosystem for this target in the context of sustainable development. Through this vision, new opportunities and synergies are created for producing more sustainable, resilient, competitive, and efficient impacts.

With our numerous research centers and institutes from informatics and information security, space technologies, rail transport technologies, defense industries, metrology, supercomputing and academic networks, industrial management, fundamental sciences, and space observation to test laboratories, TÜBİTAK is advancing new groundbreaking achievements in science and technology.

This Annual Report for 2025 highlights the advances of TÜBİTAK and collaboration opportunities with The Commission on Science and Technology for Sustainable Development in the South (COMSATS). We summarize our 2025 activities and underscore our dedication to ongoing scientific and technological cooperation with COMSATS. As TÜBİTAK, we most sincerely look forward to taking these advances forward in the path ahead and working together with COMSATS in the Centres of Excellence Network in developing solutions for a more sustainable, resilient, competitive, and efficient future for all members and humanity.

and technology. It plays a leading role in the RDI (Research, Development, and Innovation) ecosystem, supporting Türkiye's 2022 goals. With a strategic approach of “working and succeeding together”, focused on co-creation and new knowledge generation, TÜBİTAK fosters innovative solutions for sustainable development. This approach considers global risks, challenges, opportunities, as

well as national needs and priorities.

**TÜBİTAK: A Landmark Year of Scientific and Technological Achievements in 2025**  
The year 2025 marked a defining period for the Scientific and Technological Research Council of Türkiye (TÜBİTAK), representing not merely a continuation of prior efforts but the consolidation of a long-term vision shaped by the strategic

breakthroughs of 2024. This period stands out as a milestone in which Türkiye's “Century of Science” vision became firmly institutionalized, reflecting sustained progress across a wide spectrum of scientific and technological domains. Throughout 2025, TÜBİTAK reinforced its leading role in advancing Türkiye's scientific ecosystem, spanning critical areas such as space technologies, polar



research, artificial intelligence, and defense systems. Increasing international grant funding, strengthened global partnerships, and high-impact projects collectively demonstrated Türkiye's growing scientific competitiveness and innovation capacity on the global stage.

In the field of space technologies, 2025 became a turning point demonstrating Türkiye's transition from a user to a producer and exporter in the global space economy. The country's first domestically developed communication satellite, TÜRKSAT 6A, entered full operational service, while the high-resolution Earth observation satellite İMECE was incorporated into the Turkish Armed Forces inventory under the name GÖKTÜRK-2B. Furthermore, Türkiye achieved its first export of satellite hardware through the sale of a domestically developed electro-optical camera designed for the İMECE satellite. These developments underscored Türkiye's growing technological independence and export capacity in the space sector.

TÜBİTAK continued to recognize and encourage scientific excellence through its prestigious Science, Special, Service, and Incentive Awards, which were presented for the 60th time in 2025. A total of 11 scientists from 9 universities were honored, reflecting the institution's commitment to fostering a strong scientific community.

Digital transformation remained at the core of TÜBİTAK's strategic priorities. The computational capacity of the ARF supercomputer was tripled, significantly enhancing research capabilities in data-intensive fields. At the same time, Turkish technology initiatives gained access to MareNostrum 5, one of the world's most powerful supercomputers, enabling the development of advanced artificial intelligence solutions on a global scale.

Through its Research Support Programs Directorate (ARDEB), TÜBİTAK provided substantial funding to academic and public sector research projects. In 2025 alone, 6,985 projects received a total of 6.73 billion Turkish Lira in support, involving nearly 21,000 researchers and over 20,000 scholarship holders. Targeted calls were launched in collaboration with public institutions, including projects addressing family welfare, social services, and

protection of vulnerable groups.

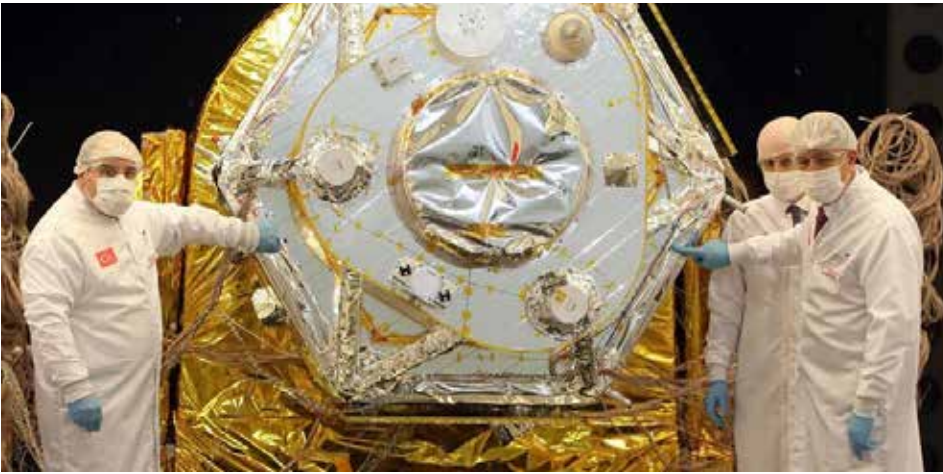
Polar research also remained a strategic priority. Under the KUTUP programs, 14 projects with a total budget of 12.1 million Turkish Lira were supported, while preparations for future calls continued with strong participation from the scientific community. Meanwhile, the 1004 Excellence Center Program brought together universities, private sector actors, and research infrastructures under high-technology platforms, involving more than 1,600 researchers and over 800 scholarship holders.

Artificial intelligence emerged as a transformative field, particularly within the Public AI Ecosystem Program. TÜBİTAK facilitated the development of AI-driven solutions tailored to the needs of public institutions, including applications in social security, agriculture, taxation, insurance, and judicial training systems. These initiatives contributed to improving efficiency, transparency, and data-driven decision-making in public administration.

Aligned with Türkiye's 2053 net-zero emissions target, TÜBİTAK launched initiatives under the Green Transformation theme, focusing on critical technologies such as carbon capture and conversion. Additionally, research infrastructures supported under Law No. 6550 continued to produce high-quality outputs in priority areas including health technologies,







nanomaterials, astrophysics, renewable energy, and financial technologies.

Through the Scientist Support Programs Directorate (BİDEB), TÜBİTAK achieved record levels of participation in 2025. Applications for undergraduate research project programs increased by 50 percent compared to the previous year, reaching over 52,000 submissions. In total, 81,700 researchers and scientists received support amounting to 4.3 billion Turkish Lira. International mobility programs also attracted unprecedented interest, reflecting the growing global engagement of Turkish researchers.

Student engagement in science was further strengthened through competitions, polar research initiatives, and international science olympiads, where Turkish students achieved remarkable success, earning numerous medals. TÜBİTAK Science High

School continued to expand its capacity, contributing to the development of future generations of scientists.

The Science and Society Directorate played a vital role in disseminating scientific knowledge across all segments of society. TÜBİTAK's popular science publications maintained their leadership in readership, with millions of copies distributed and extensive digital engagement. New initiatives, including podcast channels and digital platforms, broadened access to scientific content. The launch of the TÜBİTAK Store represented an innovative step in bringing science-themed products to the public.

Science centers, festivals, and outreach programs continued to expand nationwide. By 2025, the number of science centers reached 41, hosting millions of visitors. Large-scale events such as TEKNOFEST

attracted significant public interest, while science camps, workshops, and technology training programs engaged tens of thousands of students across all 81 provinces. The DENEYAP Technology Workshops and National Technology Workshops played a crucial role in nurturing a technology-oriented workforce.

Within the Technology and Innovation Support Programs Directorate (TEYDEB), TÜBİTAK supported 3,789 projects from 3,100 companies, providing over 6.26 billion Turkish Lira in funding. The BiGG entrepreneurship program continued to expand, supporting thousands of startups and introducing new investment mechanisms such as the BiGG+ Venture Capital Fund.

International collaboration remained a cornerstone of TÜBİTAK's strategy. In 2025, 16 new international agreements were signed, and Türkiye actively participated in major global research networks. Under the Horizon Europe program, Turkish researchers secured significant funding and increased their role as project coordinators in multinational consortia.

TÜBİTAK's research centers and institutes also achieved notable advancements. BİLGEM made significant contributions in cybersecurity, artificial intelligence, and defense technologies, while MAM advanced research in energy, environment, and biotechnology. The Rail Transport Technologies Institute (RUTE) successfully introduced the domestically developed E5000 electric locomotive into commercial operation, marking a major milestone in transportation technologies.

In the field of metrology, TÜBİTAK UME continued to develop critical technologies, including atomic clocks and quantum measurement systems, contributing to Türkiye's capabilities in advanced scientific instrumentation. Meanwhile, ULAKBİM enhanced national research infrastructure through high-performance computing and

academic data services.

Space technologies continued to evolve under TÜBİTAK UZAY, with successful satellite missions and increasing international visibility. Türkiye's first human space mission also contributed to raising public awareness and inspiring

future generations.

In conclusion, 2025 was a year of comprehensive progress for TÜBİTAK, characterized by groundbreaking achievements, strengthened international positioning, and a deepened integration of science and society. From defense and

space technologies to artificial intelligence and green transformation, TÜBİTAK's efforts have not only advanced Türkiye's scientific capabilities but also contributed to shaping a more innovative, sustainable, and competitive future.





## 8. FINANCIAL AFFAIRS

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| • Financial Sources of COMSATS Secretariat                                          | 114 |
| • Host Country (Pakistan) Contribution towards running costs of COMSATS Secretariat | 114 |
| • Annual Membership Contribution (AMC)                                              | 114 |
| • COMSATS Endowment Fund                                                            | 114 |
| • Accounts and Audit                                                                | 114 |

# FINANCIAL AFFAIRS

*Major source of financing COMSATS' operations is annual contributions from the Government of Pakistan towards running cost of the organization's Secretariat. Other member states of COMSATS pay voluntary Annual Membership Contribution (AMC) towards COMSATS. The AMC received from member states is kept as 'Trust Money, COMSATS Secretariat instituted creation of an Endowment Fund of US\$ 10.00 million during the 2nd General Meeting of COMSATS, held on 16-17 April 2012 in Islamabad, Pakistan.*

## Financial Sources of COMSATS Secretariat

Major source of financing operations of COMSATS is annual contribution from the Government of Pakistan towards running cost of the organization's Secretariat. Other member states of COMSATS pay voluntary Annual Membership Contribution (AMC) towards COMSATS. The AMC received from member states is kept as 'Trust Money' and spent on activities related to the respective contributing country. In order to have a regular source of financing for technical programmes, creation of an Endowment Fund was approved during the 2nd General Meeting of COMSATS, held on 16-17 April 2012 in Islamabad, Pakistan.

## Host Country (Pakistan) Contribution towards running costs of COMSATS Secretariat

The Government of the Islamic Republic of Pakistan, being host country of COMSATS, has been meeting the running costs of COMSATS Secretariat under an international agreement since establishment of COMSATS in 1994. The fixed annual grant (contribution) is revised from time to time as per requirement of the organization. The amount of annual contribution was last revised/fixed to PKR 40.00 million in 2009. Due to increase in expenditure and inflation, the amount was found insufficient to meet the organization's needs. Accordingly, COMSATS Secretariat requested the Government of Pakistan for enhancement of the contribution.

The Government of Pakistan has provided additional funds of Rs. 47 million, Rs. 66.2 million, 100 million and 49.70 million to COMSATS during the financial years 2021, 2023, 2024 & 2025 respectively. However,

the Government of Pakistan has allocated an amount of 40.00 million for the financial year 2025-2026. The Executive Director COMSATS has taken up the matter of insufficient allocation for running costs of COMSATS Secretariat with the Ministry of Science and Technology, Government of Pakistan for allocation of Rs. 170.00 million for running costs of COMSATS Secretariat for the financial year 2025-26 and onwards.

## Annual Membership Contribution (AMC)

COMSATS' Member States are paying Annual Membership Contribution (AMC) towards COMSATS on voluntary basis. The AMC received from COMSATS Member States is kept as "Trust Money" and is utilized to support technical activities and programmes of the contributing member state. During the reporting period (January to December 2025), COMSATS received Annual Membership Contribution (AMC) from two member countries – China (US\$ 44,948.75) and Pakistan (US\$ 32,449/-).

## COMSATS Endowment Fund

In order to strengthen the financial health of COMSATS and to create a regular source of income for technical activities of COMSATS, an endowment fund of US\$ 10.00 million was approved upon proposal of the then Prime Minister of Islamic Republic of Pakistan, in his capacity as the Chairperson of COMSATS, during the 2nd General Meeting of COMSATS held on 16-17 April 2012 in Islamabad, Pakistan. During this meeting, the Government of Pakistan pledged seed money of US\$ 1.00 million as its contribution towards the proposed fund and representatives of other member states also made pledges to contribute towards COMSATS Endowment Fund.

The Rules and Regulations of the COMSATS Endowment Fund were approved by the 3rd General Meeting of COMSATS (27-28 October 2015), held in Accra, Ghana, which also increased the Fund size to US\$ 20 million. Donations are being accepted from COMSATS' Member States, organizations, and, individual, since the approval of the Rules and Regulations.

COMSATS Secretariat has contributed token amounts of US\$ 5,000 and PKR 500,000 to operationalize this Fund. The Government of Pakistan has contributed PKR. 10.00 million (10% of the committed amount) towards the Fund. Total worth of the fund is Rs. 26.200 million as on 31st December 2025.

## Accounts and Audit

The accounts of COMSATS Secretariat are managed and maintained as per international practices and in compliance with the International Accounting & Financial Standards. The financial year of COMSATS Secretariat begins from 1st July and ends on 30th June of the succeeding year. The accounts of COMSATS Secretariat are audited by a reputed chartered accountancy firm every year. The audited accounts, along with the auditors' report, are approved by the COMSATS' Management Committee/Coordinating Council in the annual meetings.

The accounts of COMSATS Secretariat for the financial year ended on June 30, 2024, have been audited by M/s RSM Avais Hyder Liaquat Nauman, Chartered Accountants. The draft (initialed) auditors' report and the financial statements will be presented to the Coordinating Council of COMSATS in its upcoming annual meeting.



## LIST OF FOCAL POINTS IN COMSATS' MEMBER STATES\*



**H. E. Mr. Fakir Mahbub Anam**

Honorable Minister  
Ministry of Science and Technology  
People's Republic of Bangladesh



**H.E. Mr. Yin Hejun**

Minister  
Ministry of Science and Technology  
People's Republic of China



**H.E. Dr. Yesenia Olaya Requene**

Minister  
Ministry of Science, Technology and  
Innovation  
Republic of Colombia



**Prof. Dr. Gina El-Feky**

Acting President  
Academy of Scientific Research and  
Technology  
Arab Republic of Egypt



**H.E. Prof. Pierre Gomez**

Minister  
Ministry of Higher Education, Research,  
Science and Technology  
Republic of The Gambia



**H.E. Emmanuel Armah Kofi Buah**

Minister  
Ministry of Environment, Science and  
Technology  
Republic of Ghana



**H.E. Hossein Simaee Sarraf**

Minister  
Ministry of Science, Research and  
Technology  
Islamic Republic of Iran



**Hon. Daryl Vaz**

Minister  
Ministry of Science, Energy and  
Technology  
Jamaica, West Indies



**Prof. Mashhoor Al-Refai**

Secretary General  
Higher Council for Science and  
Technology (HCST)  
Hashemite Kingdom of Jordan



**H.E. Mr. Sayasat Nurbek**

Minister  
Ministry of Science and Higher Education  
Republic of Kazakhstan



**Hon. Dr. Kim Sung Jin**

President  
State Academy of Sciences  
Democratic People's Republic of Korea



**H.E. Prof. Azzedine El Midaoui**

Minister  
Ministry of Higher Education, Scientific  
Research and Innovation  
Kingdom of Morocco



**Dr. Kingsley Tochukwu Udeh SAN**

Minister  
Federal Ministry of Science, Technology  
and Innovation  
Federal Republic of Nigeria



**Mr. Shahid Iqbal Baloch**

Secretary  
Ministry of Science and Technology  
Islamic Republic of Pakistan

\* As of June 2026

**H.E. Dr. Amjad Barham**

Minister  
Ministry of Higher Education and  
Scientific Research  
The State of Palestine

**Hon. Dr. Renato U. Solidum, Jr**

Secretary  
Department of Science and Technology  
Republic of the Philippines

**Hon. Prof. Daouda Ngom**

Minister  
Ministry of Higher Education, Research  
and Innovation  
Republic of Senegal

**H.E. Farah Sheikh Abdulqadir**

Minister  
Ministry of Education, Culture and Higher  
Education  
Federal Republic of Somalia

**Hon. Prof. Chrishantha Abeysena**

Minister  
Ministry of Science & Technology  
Democratic Socialist Republic of Sri Lanka

**H.E. Prof. Ahmed Mudawi Musa  
Mohamed**

Minister  
Ministry of Higher Education and  
Scientific Research  
Republic of the Sudan

**H.E. Dr. Marwan Jamil al-Halabi**

Minister  
Ministry of Higher Education and  
Scientific Research  
Syrian Arab Republic

**Hon. Prof. Adolf Mkenda**

Minister  
Ministry of Education, Science and  
Technology  
The United Republic of Tanzania

**H.E. Mr. Mondher Belaid**

Minister  
Ministry of Higher Education and  
Scientific Research  
Republic of Tunisia

**Prof. Dr. Orhan AYDIN**

President  
The Scientific and Technological Research  
Council of Türkiye (TÜBİTAK)  
Republic of Türkiye

**Hon. Dr. David Serruka**

Executive Secretary  
Uganda National Council for Science and  
Technology (UNCST)  
Republic of Uganda

**H.E. Dr. Ameen Noman Mohammed Al-  
Qadsi**

Minister  
Ministry of Higher Education and  
Scientific Research  
Republic of Yemen

**Hon. Dr. Frederick Shava**

Minister  
Ministry of Higher and Tertiary Education,  
Innovation, Science and Technology  
Development  
Republic of Zimbabwe



## INSTITUTIONAL COLLABORATION

### UN Agencies



### Regional and International Organizations



### Think Tanks



## OIC Specialized Organizations



## International Financial Institutions



## Non-Profit Organizations and Private Sector



## Public Entities-National



## R&D



## Women Organizations







## COMSATS' Centres of Excellence



## COMSATS SECRETARIAT

Shahrah-e-Jamhuriat, G-5/2, Islamabad, Pakistan

Ph: (+92-51) 9214515-7; Fax: (+92-51) 9216539

URL: [www.comsats.org](http://www.comsats.org); Email: [comsats@comsats.org](mailto:comsats@comsats.org)



COMSATS\_en



COMSATSofficial/



comsats\_en



company/comsats



COMSATSSecretariat