



# COMSATS Newsletter

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

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Group photo after the Earth Day Event Chaired by Coordinator to Prime Minister of Pakistan on Climate Change and Environment Coordination and attended by senior officials and diplomatic community (Page 6)

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## From the Executive Director's Desk

Higher Education, Research & Development, and Innovation are pivotal factors catalyzing a positive change in the society. The need for tech-based solutions is more critical than ever before as the world faces an array of complex, interconnected and growing challenges. These challenges require innovative approaches that draw on the knowledge and tools developed through scientific research and technological advancements. The situation necessitates international collaboration and collective approach by various stakeholders for providing tech-based solutions. COMSATS, as a platform of 27 developing countries, follows this approach as an overarching objective of this IGO through international collaboration in science, technology and innovation.

International collaboration in science and technology is not just a strategic means to development; it is essential for addressing the world's most pressing challenges facing humanity. Whether for solving environmental issues, advancing medical research, or fostering socio-economic development, S&T collaboration across borders holds the key to securing collective interest of humanity and improving the quality of lives.

In the recent past, the development in S&T has helped countries leapfrog and provide solutions to various global challenges. Artificial Intelligence (AI) has emerged as means to analyze and

provide tech solutions to the health, economic, and social issues. The world community is coming to terms with the fact that AI will permeate in every sphere of life. AI is attracting investments in a variety of ways and its mainstreaming introduce national frameworks and policies to preemptively adapt and regulate every walk of life. Given the advantage that Global-North has in terms of infrastructure, the pace of the developing countries will be slower towards adaptation of AI driven world. To keep pace, Global-South will have to give greater focus and attention in developing expertise in AI and its applications.

AI as catalyst is helping enhance R&D and innovations in various fields. In the field of biotechnology, Google DeepMind, UK, along with Isomorphic Labs, UK, has introduced AlphaFold 3, a revolutionary AI model that has significantly enhanced our ability to predict the structures of proteins, DNA, RNA, and other molecules. This breakthrough is expected to accelerate drug discovery, enabling more precise insights into biological systems and molecular interactions.

The GPT-4o, built on cutting-edge AI model, is providing excellence in multimodal interaction, allowing real-time communication through text, voice, images, and video. It features advanced emotional recognition and enhanced memory, and is set to revolutionize

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## HIGHLIGHTS FROM COMSATS SECRETARIAT

### ED COMSATS Participates in ANSO Governing Board Meeting

In June 2024, the 8th Governing Board meeting of the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) was held in China, which was organized by ANSO Secretariat. The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, and other eight members of the Governing Board participated on 3rd June 2024.

ANSO is an international scientific organization, dedicated to China's Belt and Road Initiative (BRI) and achievement of the UN SDGs. COMSATS joined ANSO as a member in 2019 and was subsequently elected as a member of ANSO Governing Board in November 2023.

In its session being reported here, the Governing Board reviewed ANSO Progress Report and Plan for 2024, Regulations on the Administration of ANSO Secretariat, and Proposal for holding the next Governing Board Meeting in Thailand. Moreover, appointment of Prof. Weidong Liu, Director General of International Cooperation Bureau of Chinese Academy of Sciences, as the new Executive Director of ANSO Secretariat, was announced. He was warmly welcomed by Governing Board members.

Participating online in the meeting, Ambassador Zakaria congratulated the new ANSO Secretariat Executive Director, and underlined that commonality of objectives, common 24 member countries and three Centres of Excellence, provide fertile ground for the two organizations to complement each other's operations. To that end, he urged to focus on harnessing emerging technologies for employability of youth



and facilitating economic growth.

Ambassador Zakaria proposed more cooperative measures between COMSATS and ANSO for organizing training programmes for youth of COMSATS & BRI member countries, in areas such as Artificial Intelligence, Cyber Security, Data Analytics, Cloud Computing, Chip Circuit Designing, Precision Agriculture (Urban Area Soilless Vertical Farming), Tech-enabled Health Clinics, Bioinformatics and applications, Renewable Energy, and Electric Vehicles.

Ambassador Zakaria called for adequate utilization of international fora, such as COMSATS and ANSO, for developing technology-based solutions to address global socio-economic challenges for achieving sustainable development.

### Collaborations

#### MoU with Khas Technology Solutions (KTS) (May 16, 2024)

COMSATS and Khas Technology Solutions (KTS), formalized a Memorandum of Understanding on 16 May 2024. The agreement paves way for collaboration in developing

IT enabled solutions and conducting online professional training programs focused at high skilled HRD in various fields including Information and Communication Technology (ICT), DevSecOps, Information and Cyber Security (I&CS), Management, Business, Health, Cloud Computing, Medicine and related technologies using their indigenously developed 'iqrasy' Learning Management System (LMS).

KTS is a technology company specializing in ICT hardware and software development for web and mobile platforms, Cyber Security, Cloud Computing, DevSecOps services and Enterprise software platforms offers comprehensive IT solutions worldwide. The technological advantage of COMSATS stems inter alia, from COMSATS Internet Services (CIS) and COMSATS Software Solution (CSS)

The agreement was signed by Ambassador Dr. M. Nafees Zakaria, Executive Director COMSATS, and Dr. Ashraf Masood, Chief Executive Officer, KTS, for their respective institutions. The agreement aims to enhance capacity of CSS as well as to strengthen COMSATS technical resource base to support its technical programs for COMSATS



Member States and Network of S&T Centres of Excellence.

The agreement allows utilizing KTS' versatile LMS branded as 'iqrasiy' for professional trainings across COMSATS states. The MoU establishes a framework for collaborative efforts in delivering solutions and services to pertinent organizations in Pakistan and other COMSATS Member States.

### Partnership with Pakistan's Living Indus Initiative Explored for Climate Action (June 12, 2024)

On June 12, 2024, a delegation from Pakistan's Living Indus Initiative, led by renowned environmentalist and Senior Advisor at the UN Resident Coordinator Office (UN RCO), Ms. Aban Marker Kabraji, visited the COMSATS Secretariat to meet with Executive

Director, Ambassador Dr. Mohammad Nafees Zakaria. The purpose of the visit was to explore potential collaboration between COMSATS and the Living Indus Initiative, to work out modalities and combine their resources and expertise to address critical issues related to water, agriculture, biodiversity, environment, and climate change. Through this partnership, both parties seek to leverage technological solutions for ecological restoration and increased resilience to climate change, in alignment with their respective mandates.

The Living Indus Initiative, a World Restoration Flagship of the United Nations Decade on Ecosystem Restoration, is being undertaken by the Ministry of Climate Change and Environmental Coordination (MoCC&EC) of Pakistan and the United Nations. The Initiative is committed to restoring the biodiversity of the Indus Basin through various projects focused

#### ...continued from page 1

various industries including healthcare. Nonetheless, while benefitting from the technology, we should be mindful of their downside also.

Other revolutionary tech-based developments taking place around the world include unveiling of a new brain circuit by scientists from Columbia University, USA, that may act as a 'master regulator' of the immune system. This discovery could open new avenues for treating autoimmune diseases and conditions involving chronic inflammation, and requires greater international collaborations to benefit the humanity at large.

The developing countries must make efforts for acquiring new knowledge, support collaborative R&D, facilitate expertise-exchange, and enhance their readiness to effectively benefit from emerging technologies. Investment in R&D and partnerships is, therefore, of paramount importance.

COMSATS remains committed to addressing the today's most pressing challenges through international collaboration and innovative solutions. The organization continues to play a pivotal role in working towards sustainable development of the South. COMSATS' activities during the reporting period helped achieve its objectives.

The organization's participation in the ANSO Governing Board meeting, as its newly elected member, helped foster global partnerships that are crucial for addressing shared challenges with the help of science and technology. COMSATS' collaboration with ICESCO (Islamic World Educational, Scientific and Cultural Organization) is supporting to advance educational and scientific initiatives across common member countries. COMSATS entered into partnerships and collaboration with the ECO Science Foundation (ECOSF) and Pakistan's Living Indus Initiative for joint work on Climate change. The theme got further reinforced through a high-level panel discussion on UN World Environment Day. Moreover, COMSATS' partnership forged

through a MoU with Khas Technology Solutions (KTS) aims to advance high-skilled human resource development and create tech-enabled solutions.

Visits of S&T policy makers, dignitaries and representatives of international organizations to the Secretariat reflects the increasing recognition of COMSATS' role in advancing global science and technology agendas and expanded its global outreach. The visits during the reporting period included that of the President-Designate of COP-29, H.E. Mukhtar Babayev, Azerbaijan's Minister of Ecology and Natural Resources; Baroness Sayeeda Hussain Warsi, a member of the British House of Lords; a six-member Syrian delegation, led by the Deputy Minister of Education and Educational Affairs, H.E. Dr. Rami Waheed Al-Dhulli; as well as Dean of the Diplomatic Corps, Ambassador of Turkmenistan to Islamabad.

Further details on these activities and interactions are given in this issue of the newsletter. Invaluable feedback of the readers is invited and welcome!



on agriculture, biodiversity, finance, forests, governance, groundwater, livelihood, pollution, and sustainable urbanization.

To formally initiate the collaboration, representatives from both organizations have agreed to start pooling their resources and expertise towards promoting innovative solutions and developing new tools and mechanisms to address the climate and nature crises, enhancing socio-ecological resilience.

During the meeting, it was decided that COMSATS would provide extensive support to the Living Indus Initiative through its flagship project,

COMSATS Internet Services (CIS), COMSATS Centre for Climate and Sustainability (CCCS) and the Network of 25 International S&T Centres of Excellence. This support will focus on various ongoing and upcoming projects, including the Digital Knowledge Sharing Platform, GLOF, Renewable and Clean Energy, Resilient Agriculture, Biodiversity, Zero Plastic Waste, and Managing Agricultural Wastewater, among others.

The meeting established a foundation for a formal agreement between COMSATS and the Living Indus Initiative and concluded with a plan to explore and discuss more areas of cooperation.

## Distinguished Visitors

### President-Designate of COP29, Azerbaijan's Minister of Ecology and Natural Resources, Mr. Mukhtar Babayev (May 10, 2024)

On May 10, 2024, President-Designate of COP29, Azerbaijan's Minister of Ecology and Natural Resources, Mr. Mukhtar Babayev, visited COMSATS along with Coordinator to the Prime Minister on Climate Change & Environmental Protection, Ms. Romina Khurshid Alam.

Executive Director COMSATS, Amb. Dr. Nafees Zakaria, warmly welcomed





the delegation from Azerbaijan. Ms. Amna Batool, Member of the National Assembly was among the distinguished visitors to COMSATS.

Ambassador Zakaria briefed the delegation on COMSATS and its origin. He paid tribute to Pakistan’s distinguished Physicist and Nobel Laureate Prof. Abdus Salam, who founded it in 1994. He highlighted the over-arching objective of the 27-member intergovernmental organization, that is working towards bridging knowledge and technology gap between global south and global north. He emphasized the pivotal role of COMSATS’ Network of 25 Centres of Excellence in fostering science and technology collaboration among member countries.

In the context of cooperation between COMSATS and Azerbaijan, Ambassador Zakaria recalled earlier visit of Azerbaijan delegation and subsequent training in AI and Software Quality Assurance.

The Executive Director also introduced COMSATS Centre for Climate & Sustainability and offered to provide support to the COP29 President-Designate in organizing the upcoming

event to be hosted by Azerbaijan. Minister Mukhtar Babayev expressed a strong desire for collaboration within the framework of COP29. He envisaged Azerbaijan serving as a pivotal link in the continuum of decision-making and implementation, linking the outcome of COP28 at the UAE and COP30 to be held in Brazil next year. Mr. Babayev further stressed the imperative for developing countries to harness their collective strength to effectively address global challenges like climate change. The Coordinator to the Prime Minister, Ms. Romina, appreciated the role being played by COMSATS and its efforts towards addressing Climate Change challenges and effectiveness of this 27

member platform on the whole in the fields Science and Technology.

The visit of the Azerbaijani delegation offered a good opportunity for discussions on enhancing cooperation between COMSATS and Azerbaijan in different areas of mutual interest, with a focus on leveraging science, technology, and innovation for sustainable development, in general, and Climate Change, in particular.

**Member British House of Lords, Baroness Sayeeda Hussain Warsi (May 14, 2024)**

Baroness Sayeeda Hussain Warsi, British





lawyer, politician, and a member of the House of Lords, UK, who served as Co-chairperson of the Conservative Party from 2010 to 2012, visited COMSATS Secretariat to meet the Executive Director COMSATS, Ambassador Dr. M. Nafees Zakaria, on May 14, 2024.

Amb. Zakaria, who has also served as the High Commissioner for Pakistan to the United Kingdom from 2019 to 2020, shared with Baroness Warsi information about COMSATS and recent initiatives of the organization. These initiatives are in the fields of Artificial Intelligence (AI), Information Technology (IT) and digital technologies, industrial biotechnology, climate change and environment, renewable energy, genomics, electric vehicles, precision agriculture, and micro-chip circuit designing.

Amb. Zakaria informed Baroness Warsi that the Centres of Excellence provide COMSATS the technical grounds for scientific cooperation and collaboration. They were of the view that COMSATS should explore opportunities for cooperation with the U.K. while Baroness Sayeeda Warsi assured Dr. Zakaria of her support to that end.

Baroness Sayeeda Warsi, in her erstwhile capacity as Co-Chair of the Conservatives Party U.K., had played a lead role in the establishment of the

Conservative Friends of Pakistan with both countries' then Prime Ministers present on the occasion. Ambassador Zakaria, then as DHM, extended full assistance to Baroness Warsi.

With the cherished memories of friendship and cooperation between the Baroness and Amb. Zakaria, as representatives of their respective countries, the meeting afforded good opportunity to open discussion in new domains.

**Turkmen Ambassador to Pakistan, His Excellency Mr. Atadjan Movlamov (May 31, 2024)**

One May 31, 2024, Turkmen Ambassador to Pakistan, His

Excellency Mr. Atadjan Movlamov, visited COMSATS Secretariat and held a meeting with the Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria.

The two focused on fostering mutual cooperation for Research and Development in various cutting-edge technologies. During the meeting, both dignitaries exchanged views on leveraging emerging technologies for mutual benefit. Key topics of discussion included: Artificial Intelligence (AI); Information Technology (IT) and IT-enabled Services; and Cyber Security.

Amb. Zakaria emphasized COMSATS' commitment to advancing science, technology, and innovation through South-South and Triangular Cooperation. Expressing his enthusiasm for strengthening ties with Turkmenistan, Amb. Zakaria formally invited Turkmenistan to become a Member State of COMSATS. He highlighted the potential for Turkmenistan to benefit from COMSATS' extensive Network and resources, aligned with COMSATS' mandate.

The visit resulted in exploring mutual interest in exploring academic and research partnerships, aiming to bolster economic growth and development in line with global advancements in technology.





**Syrian Delegation led by the Deputy Minister of Education and Educational Affairs, H.E. Dr. Rami Waheed Al-Dhulli (May 7, 2024)**

On May 07, 2024, a six-member Syrian delegation, led by the Deputy Minister of Education and Educational Affairs, H.E. Dr. Rami Waheed Al-Dhulli, visited COMSATS Secretariat. Comprising senior officials of Syrian Ministry of Higher Education and Scientific Research, as well as Ministry of Education, the delegation held meeting with the Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria. The Ambassador of Syria to Pakistan, H.E. Mr. Ramez Alraee, and officials from relevant Pakistani Ministries and Departments, accompanied the delegation.

During the meeting, the two sides held substantive discussion on cooperation towards developing and equipping an IT Centre in Damascus, the seeds of which were sown some years ago. The development of the Centre did not materialize due to the external factors that created unfavorable situation in that region. The Syrian government is now pursuing the operationalization of the IT Centre in collaboration with COMSATS.

Ambassador Zakaria considered the IT Centre significant for imparting the educated and employable youth of Syria with the necessary skills to contribute to their country's socio-economic development. In this regard, he assured COMSATS' cooperation and support to the Syrian endeavor. They

discussed the educational and training programs for skillsets development for the Syrian youth.

The Executive Director underscored COMSATS' commitment to facilitate the exchange of knowledge and expertise among its Member States. The Syrian Deputy Minister thanked the Government of Pakistan, its people, and COMSATS for the valuable support. The Deputy Minister expressed gratitude to the Ministry of Federal Education and Professional Training, Government of Pakistan, for warm hospitality and facilitation.

**Head of the Science and Technology (S&T) Sector at ICESCO, Prof. Raheel Qamar (May 6, 2024)**

Executive Director COMSATS, Ambassador Dr. Nafees Zakaria, and the Head of the Science and Technology (S&T) Sector at ICESCO, Prof. Raheel Qamar, had a productive meeting on May 6, 2024, at COMSATS Secretariat. The meeting served as means to reinforce the existing collaboration between the two organizations.

During the meeting, both parties expressed mutual appreciation for the active collaboration between COMSATS and ICESCO. Prof. Raheel Qamar highlighted ICESCO's recent achievements and initiatives





aimed at advancing socio-economic development in its member states. Noteworthy initiatives include the ICESCO accelerator programme for young entrepreneurs in the technology sector, efforts to foster entrepreneurship in the space sector, and support for small-scale farmers through smart agriculture initiatives.

Additionally, ICESCO organizes specialized ministerial conferences and high-level sectoral gatherings to serve mutual interests in education, higher education, scientific research, and environmental sustainability. These conferences serve as platforms for ministers and decision-makers from member states to explore answers to key questions and collaborate on sustainable solutions.

On COMSATS' side, Ambassador Dr. Nafees Zakaria briefed Prof. Raheel Qamar about recent initiatives, particularly the development of 100% indigenous kits for converting internal combustion engine (ICE) vehicles to electric vehicles (EV) through retrofitting. This initiative aligns with COMSATS' commitment to sustainable solutions to address global challenges.

Both organizations affirmed their commitment to continued collaboration and agreed to share their work plans and action plans for 2024-2025. Through strengthened collaboration, COMSATS and ICESCO aim to contribute significantly to socio-economic development and technological innovation in their member states.

This meeting represents the shared

commitment of COMSATS and ICESCO to leverage science, technology, and innovation for the benefit of their member states and the broader Islamic world.

By pooling their resources and expertise, both organizations are poised to make meaningful contributions to sustainable development and prosperity in the region.

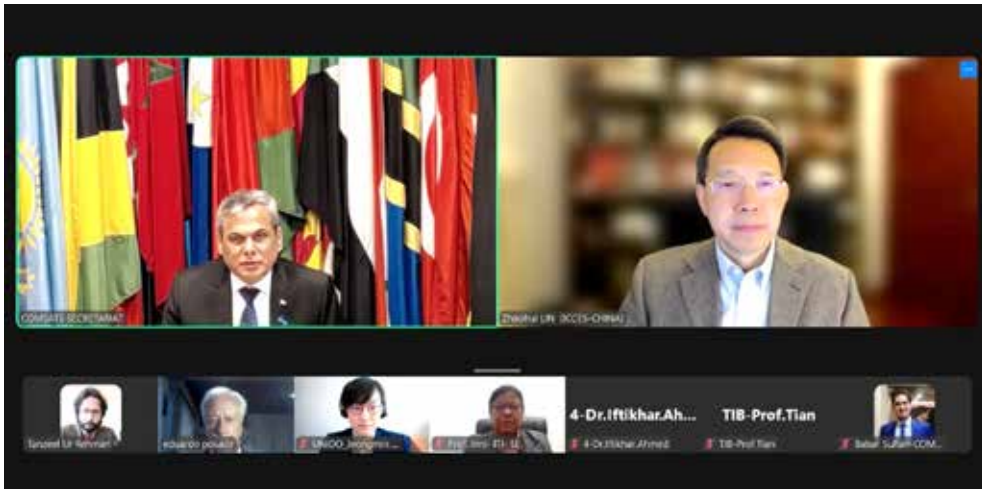
### **Delegation of Ministry of National Health Services Regulation and Coordination (NHSRC), Pakistan (May 15, 2024)**

COMSATS Telehealth (CTH) has been sharing its expertise and playing a significant consultative role as Pioneer Telehealth Service provider in Pakistan. COMSATS welcomes collaborations and advisory role at local and international level for sharing its expertise in digital health technologies for primary and secondary healthcare and its mainstreaming.

As a result of the renewed efforts of COMSATS' leadership and vision for widespread provision of Telehealth in Pakistan and replication of the Program in Member States, COMSATS Telehealth has attracted a number of Ministers in Pakistan and from foreign countries, diplomats, dignitaries and senior government officials, for discussions in







the related areas.

On May 15, 2024, a delegation of Ministry of National Health Services Regulation and Coordination (NHSRC), Pakistan, and representatives from the World Health Organization (WHO), led by Deputy Director-General (MoNHSRC), Dr. Soofia Yunus was received at COMSATS Telehealth housed at CIS Technology Park. The visit was a step towards aligning policy initiative and benefit from tech-based medical services provided by COMSATS to promote Telehealth clinics countrywide.

Exploration of COMSATS Telehealth Infrastructure led to the visitors' understating the program's diverse areas and medical facilities, operational aspects, financial structure, and the setup of Telehealth clinics, highlighting the program's capacity to reach even the remotest areas of Pakistan.

During the meeting with the Executive Director COMSATS, Amb. Dr. Mohammad Nafees Zakaria, the visitors commended COMSATS' efforts towards S&T led development. The Executive Director assured organization's support to Pakistan, which is a founding member of the IGO and hosts its Secretariat in Islamabad.

## Events

### Expert Panel Discussion at UN STI Forum (May 10, 2024)

On May 10, 2024, COMSATS hosted a panel discussion of scientific experts as part of the 9th Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals, under the sponsorship of the UN Economic and Social Council (ECOSOC). The session was titled "Catalyzing Change: Science, Technology, and Innovation in the Global South".

The discussion session was moderated by Executive Director COMSATS, Amb. Dr. M. Nafees Zakaria. The Panelists were from COMSATS Centres of Excellence in China, Sri Lanka and Columbia, namely Prof. Lin Zhaohui, Director, International Centre for Climate and Environment Sciences (ICCES), China; Prof. Eduardo Posada, Director, International Centre for Physics (CIF), Colombia; Prof. Chaoguang Tian, Deputy Director-General (International Cooperation), Tianjin Institute of Industrial Biotechnology (TIB), China; Prof. I.G.N. Hewajulige, Additional Director General (Research and Development), Industrial Technology Institute (ITI), Sri Lanka; as well as UNIDO-Austria.

The experts followed the theme of the 9th Forum: "Science, Technology and Innovation for reinforcing the 2030 Agenda and Eradicating Poverty in Times of Multiple Crises: The Effective Delivery of Sustainable, Resilient and Innovative Solutions". They deliberated upon the role of qualified and skilled human capital, South-South cooperation, and significance of emerging technologies in facilitating sustainable development.

The panelists shared their respective organization's activities in the context of contributing to achieving SDGs, and were unanimous in their resolve for effective utilization of tech-based solutions, emerging and disruptive technologies, for addressing the contemporary challenges.

Ambassador Zakaria stressed that high tech solutions are pivotal for mainstreaming the developing countries and bringing them at par with the developed world.

### High-Level Panel Discussion on UN World Environment Day (June 5, 2024)

COMSATS in collaboration with the Ministry of Climate Change and Environmental Coordination, Ministry of Foreign Affairs, ECO Science Foundation, and Food Security and Agriculture Centre of Excellence (FACE), commemorated the United Nations World Environment Day by holding





a High-Level Panel Discussion on 5th June 2024. Ms. Romina Khurshid Alam, Coordinator to Prime Minister on Climate Change and Environmental Coordination, was the Chief Guest.

Speaking at the occasion, the Chief Guest Ms. Romina asserted that sustainable development can only be achieved through a holistic strategy that addresses the environmental, social, and economic dimensions of land-degradation and environmental issues. She highlighted key measures to mitigate degradation and desertification, including pooling resources to invest in S&T, promoting R&D, supporting the efforts of scientists, building capacities of farmers' community with latest knowledge and skills to implement sustainable practices. She recounted some of the significant initiatives taken by her Government to tackle environmental challenges, including the Living Indus Initiative, and the Recharge Pakistan.

Ms. Romina underlined the danger posed to the Indus population by Indian relentless construction of dams on rivers allocated to the lower riparian country, Pakistan.

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, stated that Climate Change,



poverty, food security and eliminating hunger are intrinsically linked critical social and ecological challenges facing the developing world. It warranted alignment of remedial measures under a coherent policy approach driven by technology-based solutions. COMSATS could play a role to assist countries, he said.



Prof. Seyed Komail Tayebi, President ECO Science Foundation, remarked that Climate Change is not a matter of choice, it is a matter of survival and calls for a multipronged approach that adopts innovation and ensures effective resource management.

Lt. General Inam Haider, Chairman, National Disaster Management





Authority (NDMA), stated that inactivity and inaction viz-a-viz climate change was not an option. He noted that Pakistan is now trying to catch up and meet the global expectations. He said NDMA is using AI and other tech tools to analyze data for disaster management locally and contributing at international forum.

Mr. Syed Haider Shah, Additional Secretary (UN), Ministry of Foreign Affairs noted that window of opportunity is fast closing to make corrective actions. He highlighted that US\$100 billion commitment for climate finance to ensure the implementation of climate change actions by developing countries and mitigate the climate

change impacts is yet to realize. He proposed enhanced global cooperation, provision of adequate financial support and coordination with stakeholders for balanced adaptation and mitigation of environmental degradation.

Subsequently, a high-level panel discussion was held. The panelists included Dr. Kemal Güneş, Senior Chief Researcher, Vice President of TÜBİTAK MAM, Türkiye; Ms. Aban Marker Kabraji, Senior Advisor Climate Change and Biodiversity, United Nations Development Cooperation Office (UNDCO); Mr. Bilal Anwar, CEO, National Disaster Risk Management Fund (NDMRF); Cdre (Retd) Baber Bilal, Vice President, National Institute of

Maritime Affairs (NIMA); and Dr. Sohail Malik, Technical Team Leader, Climate Resourcing Coordination Centre (CRCC).

The panel discussion was held around the topics, including restoring large-scale ecosystem, natural capital accounting, channeling financial investment into economic activities enhancing ecosystem assets, addressing the issues of water scarcity and sustainability, integrated land and water management, technology-driven nature-based solutions in promoting sustainable development, role of private sector, and Pakistan's Living Indus Initiative (LII) as one of the seven UN World Restoration Flagship programmes.

The event was attended by about eighty participants, including Ambassadors and diplomats from Azerbaijan, Egypt, Iran, Jordan, Kazakhstan, Morocco, Syria.

The event helped raise awareness regarding the significance of environmental protection and paved the way for collaboration among various stakeholders in order to develop S&T-based solutions for environmental challenges.



## SOME ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

### International Partnerships Explored by CUI-Pakistan

#### People's Republic of China

A delegation from the Embassy of People's Republic of China, comprising of Mr. Yin Shengxin, Science Commissioner, Mr. Liu Chang, Third Secretary and Mr Wang Sita, Attaché visited COMSATS University Islamabad campus on June 13, 2024. Mr. Irfan Haye, Additional Director and Mr. Farhan Ansari, Deputy Director Programs from COMSATS Secretariat also accompanied the delegation.

The primary objective of the meeting was to engage in discussions aimed at fostering bilateral relations and exploring educational and research opportunities.

Rector of CUI, Prof. Dr. Sajid Qamar, extended a warm welcome to the delegates on behalf of COMSATS University, accompanied by his team members. He also expressed his appreciation to the Chinese Embassy in Islamabad for its cooperation and support to CUI.

Mr. Yin Shengxin, Science

Commissioner, and his colleagues expressed keen interest in exploring collaborative opportunities with COMSATS University in various scientific domains, particularly in information and communication technology (ICT) and technology-based educational initiatives. They also explored avenues for bilateral scientific and cultural cooperation.

#### Maldives National University

A delegation led by Dr. Aishath Shehenaz Adam, Vice Chancellor, Maldives National University (MNU) and Dr. Raheema Abdul Raheem, Deputy Vice Chancellor, visited the Islamabad Campus of COMSATS University on June 6, 2024, and called on the varsity Rector, Prof. Dr. Sajid Qamar.

Dr. Tahir Naeem, Director P&D and HRD briefed on the training need assessment carried out by CUI in 2018 at MNU, highlighted the various areas of capacity building and institutional development where CUI could provide technical assistance.

Dr. Aishath expressed keen interest in upgrading MNU's learning management system with CUI's expertise. She invited CUI's technical team to visit Maldives

and review MNU's existing system, provide recommendations, and train university staff members.

Dr. Bilal Zaka, Head Directorate of IT Services and Dr. Muhammad Asim Noor Head CUOnline were also present in the meeting. Dr. Zaka assured full support in upgrading MNU's student management

#### Syrian Universities

A delegation from the Ministry of Higher Education and Scientific Research and the Ministry of Education of the Syrian Arab Republic visited COMSATS University Islamabad (CUI) on May 6, 2024.

Dr. Rami Waheed Al-Dhulli, Syrian Deputy Minister of Education and Educational Affairs, and Ramez Alraee, Syrian Ambassador to Pakistan led the Syrian delegation. Delegates from the Syrian Ministry of Higher Education and Scientific Research included Dr. Manal Sulaiman Saqr, IT Director; Mr. Yaseer Saeed Khadra, Director of Scientific Research; Dr. Aqil Saeed Mahfoud, Director of International Cooperation. While delegates from the Syrian Ministry of Education included Najeeb Suhail Salaq, Director (IT), as well as Mr. Ragib Ali Al-Jidi, Education Director. Mr.





Zulfiqar Ali Samin, Deputy Secretary, Ministry of Federal Education and Professional Training and Mr. Zain Ul Abedin, Joint Scientific Advisor, Ministry of Science and Technology, Government of Pakistan, were also present.

Rector CUI, Prof. Dr. Sajid Qamar extended a warm welcome to the delegates on behalf of COMSATS University, along with his team members.

Head CUI International Office, Dr. Hammad Omer, T.I., presented detailed achievements and milestones of COMSATS University. He informed that so far, 11 Syrian students have studied at CUI. The potential collaborative opportunities proposed included, academic exchange programs, faculty development, cultural exchange, Technology and ICT education in Hybrid mode, and collaboration for innovation and research.

The delegates expressed keen interest in seeking collaboration opportunities with COMSATS University in multiple domains related to virtual learning, teaching mechanisms, scientific skills, and skills proficiency of students and teachers in the field of information and communication technology (ICT), technology-based educational initiatives, and exploring avenues for bilateral scientific and cultural cooperation.

Prof. Dr. Sajid Qamar assured immediate provision of trainings after the completion of codal formalities. He said that CUI will offer generous post-graduate scholarships to promising students from Syria.

### **H.E. Ambassador Akua Sekyiwa Ahenkora from Ghana**

The Coordinating Director of the Foreign Service Institute (FSI) of Ghana, Ambassador Akua Sekyiwa Ahenkora, visited the COMSATS University Islamabad (CUI) and called on the Rector, Prof. Dr. Sajid Qamar, on May 16, 2024.

Ambassador Ahenkora is a prominent figure in Ghana's diplomatic landscape with extensive experience in international relations in various capacities. She was accompanied by Ms. Bridget Suglo Nambah, Assistant Director, and Ms. Iram Batool, Liaison Officer, Pakistan's Foreign Service Academy. In attendance CUI officials were Prof. Dr. Sajjad A. Madani, Registrar; Prof. Dr. Sohail Asghar, In-charge Islamabad Campus; Prof. Dr. Saqib Gulzar, Dean Faculty of Business Administration; Prof. Dr. Shahida Mansoor, Dean Faculty of Architecture and Design; and Mr. Ali Tawab Baloch, Senior Manager International Office. Ambassador Ahenkora expressed her admiration for the achievements and milestones of the university. Various

collaboration models, including academic partnerships, training of faculty, and cooperation in fields such as artificial intelligence, biomedical materials and development of infrastructures, which would benefit both nations, were discussed. The Rector offered brilliant Ghanaian students to join CUI on a funded program. He said that CUI values diversity and students from Africa have added values to various graduate programs in natural sciences and engineering.

### **Academic Achievements at ICCBS**

#### **ICCBS-Scientist was Awarded a DSc degree:**

The Advanced Studies and Research Board (BASR), University of Karachi, has awarded a higher doctorate, Doctor of Science (D.Sc.), to Prof. Dr. Syed Ghulam Musharraf in recognition of his extensive services in chemical sciences. Prof. Musharraf of the International Center for Chemical and Biological Sciences (ICCBS) is one of those professors who were conferred a higher doctorate at an early age. It is pertinent to mention here that Prof. Musharraf, working at the HEJ, Research Institute of Chemistry, is a well-known Pakistani scientist in mass spectrometry.

#### **ICCBS Ph.D. student wins American Chemical Society International Sciences Chapters:**

A Ph.D. student of the H.E.J. Research Institute of Chemistry, ICCBS-Karachi, has won the third poster award at the American Chemical Society International Sciences Chapters Inaugural Asia-Pacific Regional Higher Education Students' Academic Poster Competition, held at Pu'er University in Yunnan, China, recently. Mr. Daim Asif Raja, secured third place online in the two-day hybrid event on March 20-23, 2024, for his poster titled "Poly Lactide-Stabilized Gold Nanoparticles as an Effective Tool for the Colorimetric Detection of

Quercetin: An Innovative Study". Mr. Raja is pursuing his Ph.D. under the supervision of Dr. M. Imran Malik at the H.E.J. Research Institute of ICCBS. Over 3000 participants (in person and online) from 10 countries around the world, including China, Malaysia, India, Pakistan, Iraq, Australia, France, Singapore, South Korea, and the United States, participated in the competition.

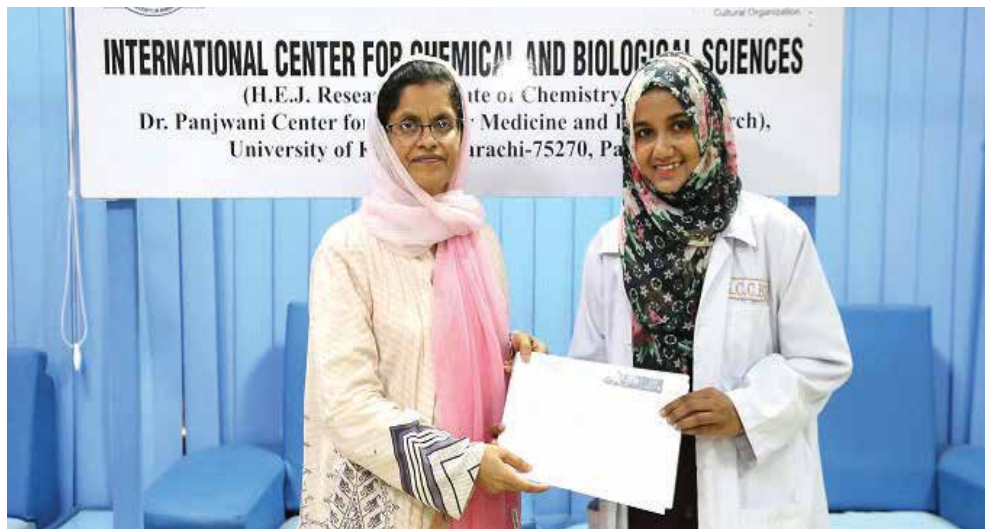
**ICCBS Female Research Scholar Wins ISSCR Travel Award:** The International Society for Stem Cell Research (ISSCR) has awarded a female MPhil scholar of the Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), ICCBS, an ISSCR Travel Award worth \$1550 to take part in a 4-day ISSCR 2024 Annual Meeting to be held in Hamburg, Germany from July 10-13, 2024.

### ICCBS Events on DNA Analysis and Oral Cancer

The Sindh Forensic DNA and Serology Laboratory (SFDL) at the International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, organized a one-day training session for investigation officers (IOs). A total of 30 police officials from the Police Investigation Department participated. The officials were given hands-on training at the mock crime scenes. This training session was held to improve the skills of the police personnel regarding the collection of evidence and forensic investigation.

AIG Sindh Police Zulfiqar Ali Mahar appreciated the efforts, made by the SFDL, in terms of organizing training programs for police officials, and expressed his satisfaction with the performance and latest equipment of the forensic DNA lab.

The participants of the training session also paid a visit to Sindh Forensic DNA and Serology Laboratory. In the end, the participants were conferred with



certificates.

DIG Admin Sindh Police Imran Yaqub had also visited the Sindh Forensic DNA and Serology Laboratory (SFDL) and the Industrial Analytical Center (IAC) at ICCBS and appreciated both Centers' scope and quality of work.

In her speech, Prof. Farzana Shaheen stressed the need for close coordination between different stakeholders to benefit from the world-class forensic facilities established at the ICCBS.

SFDL and the IAC have the capacity to carry out analysis in the full spectrum of forensic DNA and serology, foods, drugs, narcotics, toxicology, and traces, etc. as required in the investigation. The DIG Admin had been briefed about the initiatives of the Sindh Police to build an integrated mechanism to streamline the sample submission and reporting in cases where forensic analysis is required.

A public awareness lecture on "Oral Cancer and Dental Health" held at L.E.J. National Science Information Center at ICCBS. The public awareness lecture was mutually organized by the Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD)- ICCBS and the Sindh Innovation Research, and Education Network (SIREN). The lecture

was delivered by Prof. Dr. Shahjahan Katpar, Maxillofacial Surgeon and former Dean of the Faculty of Dentistry at Dow University of Health Sciences.

Prof. Shahjahan said that early detection in the treatment of oral cancer, and oral cancer screening were crucial, as mouth cancer could strike in several places, including the lips, tongue, gums, and cheeks.

The prevalence of oral cancer is higher worldwide as more than 377,700 cases were reported in 2020. Prof. Shahjahan pointed out that the prevalence of the disease required the government to set up oral cancer hospitals separately in the country.

Based on ICCBS SFDL and IAC, a possibility is being explored for an MoU between Sindh Home Department and ICCBS, for the establishment and operationalization of the Sindh Forensic Science Laboratory.

### Chinese Vice Premier Liu Guozhong Visits KazNU to Open 5G Laboratory

Vice Premier of the State Council of the People's Republic of China, Liu Guozhong, paid a working visit to Al-



Farabi Kazakh National University and inaugurated "5G/5.5G Communication Technologies" laboratory was inaugurated. This new center aims to advance telecommunications technology in Kazakhstan.

The opening ceremony included notable attendees, such as Zhang Xiao, Chinese Ambassador to Kazakhstan, Zhanseit Tuimebayev, Rector of KazNU, Guo Wei, Deputy Head of the State Council Office, Li Hui, Special Representative for Eurasian Affairs, Zhang Xingwang, Deputy Minister of Agriculture, Li Fei, Deputy Minister of Commerce, along with university scientists, faculty, and students.

The laboratory is set to train specialists in telecommunication systems, enhance Internet speed, and work on the 6G network. It will also facilitate the production and assembly of high-tech communication devices. The laboratory is the first Chinese branch in Kazakhstan, reflecting the strong partnership between the two countries.

### **KazNU-Kazakhstan Ranks Among Top 200 Universities Worldwide in QS WUR 2025**

Al-Farabi Kazakh National University

has climbed 67 places to rank 163rd in the QS World University Rankings 2025, making it the first and only university from Kazakhstan and Central Asia to enter the top 200.

This significant advancement reflects improvements across nine indicators, including academic reputation, employer demand for graduates, faculty/student ratio, and international research network.

Over the past academic year, KazNU undertook comprehensive structural modernization, established international scientific laboratories, and developed experimental educational programs accredited internationally. The university



also opened branches of foreign universities.

### **KazNU Signs Agreements with USST, Softprom, and Institute of Ecology and Environment, University of Houston**

A Memorandum of Understanding was signed between the University of Shanghai for Science and Technology (USST) and Al-Farabi KazNU. The MoU was signed as a result of the visit of USST delegation led by Vice-Rector Mrs. Cai Yunliang, to Al-Farabi KazNU. The delegation was welcomed by Vice-Rector for Scientific and Innovative Activities, Dr. Zhamila Aitzhanova, Director of Farabi Business School, Prof. Zharaskhan Saryev, and the business school team.

The guests toured the Al-Farabi KazNU museum, expressing keen interest in the history and achievements of this leading university.

During the meeting, both parties shared their institutions' achievements and discussed future development prospects. They explored potential areas of cooperation, including the launch of dual degree programs and student and faculty exchanges. Another MoU was signed with



Softprom, the official distributor of Hexagon Geospatial, during a visit of Hexagon’s regional representative, Alexander Tasev, met with Zhamila Aitzhanova, Vice-Rector for Scientific and Innovative Activities at KazNU. They discussed potential cooperation, including developing educational programs and participating in research and commercial projects, culminating in the memorandum’s signing. The cooperation aims to foster the exchange of ideas, information, and technologies, organize joint scientific research, and support professional development in agreed priority areas.

In another development, Al-Farabi KazNU and the Institute of Ecology and Environment of France signed an agreement to establish the “Archaeozoological Center for the Study of Central Asia.” This was finalized during a visit by the French delegation to KazNU.

### **KazNU and University of Houston Establish Joint Cytomatrix Research Center**

A Kazakh-American joint center for cytomatrix studies will be established at the Faculty of Biology and

Biotechnology at Al-Farabi KazNU. University of Houston professor and PhD Shaiken Tattim visited KazNU and met with Vice-Rector for Operations Prof. Yerkin Duysenov. During the meeting, they signed a memorandum to establish the center.

This agreement aims to enhance partnerships in studying cytomatrix properties and characteristics, contributing to cell biology advancements and innovative anti-cancer therapies in Kazakhstan.

### **KazNU and Nanjing University Launch Joint NanoTech Laboratory**

Al-Farabi KazNU and Nanjing University of Science and Technology (NUST) signed several cooperation agreements, culminating in the grand opening of the International Kazakh-Chinese Scientific Laboratory on Energy-Efficient Nanotechnologies.

Prof. Yerkin Duysenov, Vice-Rector for Operations at KazNU, welcomed the Chinese delegation led by NUST Rector Fu Menyin. Prof. Duysenov highlighted NUST’s 70th anniversary celebrated in September of the previous year.

The meeting included discussions on mutual cooperation, focusing on the joint laboratory’s activities and the dual-diploma master’s program. The signed agreements aim to foster effective research and educational collaboration between the two institutions.

### **KazNU to Open Branch at Omsk State University in Russia**

Al-Farabi KazNU will establish a branch at F.M. Dostoevsky Omsk State University in Russia. This initiative was formalized during a meeting between KazNU’s Chairman of the Board - Rector Zhanseit Tuimebaev, Deputy Minister of Science and Higher Education of Russia Konstantin Mogilevsky, and Governor of Omsk Region Vitaly Khotsenko.

The agreement, signed by the heads of both universities, marks the first Kazakhstani branch in Russia, aiming to train specialists in international law, customs, and philology.

The signing ceremony also included notable attendees such as Ivan Krott, Deputy Chairman of the Government and Minister of Education of Omsk Region, Kerim Kozhamberdiev, Consul



General of Kazakhstan in Omsk, and Sergey Zamyatin, Rector of Omsk State University.

## KazNU Opens Farabi Chem Science Cluster

Al-Farabi KazNU has inaugurated the Farabi Chem Science cluster at its Faculty of Chemistry and Chemical Technologies. The facility comprises nine state-of-the-art laboratories.

The cluster aims to identify and analyze environmental pollutants, develop new materials for chemical current sources, conduct in-depth petrochemical research, and devise methods for creating domestic biomedical agents and antibacterial coatings.

The opening ceremony featured notable attendees, including Minister of Science and Higher Education Sayasat Nurbek, Harvard University Professor Mark Elliot, and KazNU Rector Zhanset Tuimebaev. Dean Alina Galeeva detailed the laboratories' functions and research directions.

The cluster includes laboratories for analytical chemistry and environment, electrochemical production technologies, petrochemistry, chemical-medical research, fine organic synthesis, energy-intensive nanomaterials, advanced materials and technologies, high-precision diagnostics, and Chemical Coatings Innovations. The cost of the new equipment is 1 billion tenge.

## TÜBİTAK-Supported Türkiye's Second Space Mission Successfully Completed

Türkiye's second astronaut, Tuva Cihangir Atasver, successfully participated in Virgin Galactic's suborbital spaceflight "VSS Unity."

The mission launched from New



Mexico's Spaceport facility on June 26, 2024. Atasver was part of the "Galactic 07" crew, marking a significant milestone for Türkiye's space endeavors. TÜBİTAK UZAY played a key role in success of this mission.

## TÜBİTAK-Türkiye Unveils Major Services for Researchers

The opening of the MODSİMMER TRUBA Data Center and the introduction of the ARF Supercomputer took place in Ankara.

The event was attended by key figures including Minister of Industry and Technology Mehmet Fatih Kacır and TÜBİTAK President Prof. Dr. Hasan Mandal, who highlighted significant advancements in research infrastructure.

## TÜBİTAK's International Cooperation

**Climate Change Cooperation Agreement Signed Between TÜBİTAK and Climate Change Directorate:** The Ministry of Environment, Urbanization, and Climate Change's Climate Change Directorate, in collaboration with the UNDP and funded by the EU, held a "Climate Projections Awareness Conference" in Ankara.

This event led to a cooperation protocol with TÜBİTAK to enhance Türkiye's climate projections.

## Fourth National Arctic Scientific Research Expedition (TASE-IV):

Under the auspices of the Presidency and the Ministry of Industry and Technology, the Fourth National Arctic Scientific Research Expedition (TASE-IV) began on June 26, 2024. The Turkish Science Team embarked from Istanbul to Oslo and then to Tromso, Norway, to undertake 16 projects aboard the "R/V PolarXplorer."

The expedition aims to conduct scientific research at 24 stations, culminating in the collection of valuable data and samples for Türkiye's scientific community.

## TUBİTAK- Türkiye Students Get Recognition at International Events

From April 20-27, 2024, students from 30 countries competed in the 58th Mendeleev Chemistry Olympiad in Shenzhen, China. Representing Türkiye, students Macit Arda AYDIN, Kemal ÖZKİRŞEHİRLİ, and Efe OK brought home three Bronze Medals.

Moreover in 2024, 35 students representing Türkiye participated in the International Regeneration ISEF Science and Engineering Fair with 14 projects. Ten students from five projects won major awards from ISEF and special awards from various organizations.



Notably, one project secured both a special award and an ISEF grand award, showcasing our students' excellence.

From June 3-10, 2024, in Perak, Malaysia, our students competed against peers from 28 countries in the 24th Asian Physics Olympiad. They won three Silver Medals and two Honorable Mentions. The event was part of the 2202 Science Olympiads Program under TÜBİTAK BİDEB, showcasing our students' scientific prowess.

Held in Antalya with participants from 11 Balkan and 11 guest countries, the 28th Junior Balkan Mathematical Olympiad concluded with our students winning 3 Gold, 7 Silver, and 2 Bronze Medals.

The award ceremony, attended by TÜBİTAK President Prof. Dr. Hasan Mandal, celebrated the outstanding achievements of our young mathematicians.

## BCSIR-Bangladesh Signs MoUs for Research and Scientific Cooperation

A research cooperation signing ceremony between Bangladesh Council of Scientific and Industrial Research (BCSIR) and the Ahsanullah University of Science and Technology (AUST) was

held in May 2024. Chairman of BCSIR Professor Dr Md Aftab Ali Shaikh was present as the chief guest and Professor Mohammed Mahbubur Rahman-Vice Chancellor (in charge) of Ahsanullah University of Science and Technology (AUST) were presented as a special guest.

The chief guest said that the prime minister is trying hard to promote Science and Technology for creating "Shonar Bangla", which is why, scientific institutions need to direct merit and time to align with the prime minister's vision. He informed that these MoUs will transform our teaching labs into research laboratories.

Another MoU signed the same month was with Bangladesh Agricultural University (BAU), Mymensingh. The

ceremony was held in the meeting room of Bangladesh Council of Scientific and Industry Research (BCSIR).

BCSIR Chairman of Professor Dr. Md. Aftab Ali Shaikh was present as the chief guest, and Professor Md Abdul Awal-Dean, Faculty of Veterinary Science of BAU, and Md Delwar Hossen-Member (Administration) of BCSIR were presented as a special guest.

Among others, Mr. Md Delwar Hossen, Member (Admin) with Dr Md Nazim Zaman- Member (Science & Technology), Member (Finance), Member (Development) BCSIR-Secretary Dr. Md Selim Reza, senior scientists, teachers of Bangladesh Agricultural University (BAU) and other officials also attended the ceremony.



## GLIMPSES OF SOME EVENTS



## Scholarships/Fellowships for Member States Offered by COMSATS' Centres of Excellence

To promote academic excellence, COMSATS offers scholarships and fellowships to the students and researchers from Member States at its International S&T Centres of Excellence.

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

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

The relevant details, including terms and conditions, eligibility criteria, admission procedure and schedule, application form, etc., are available on CUI website: [http://ww2.comsats.edu.pk/internationalstudents/COMSATS\\_HQ.aspx](http://ww2.comsats.edu.pk/internationalstudents/COMSATS_HQ.aspx).

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

## TWAS Fellowships for Research and Advanced Training in Natural Sciences

TWAS offers fellowships to young scientists in developing countries to enable them to spend three to 12 months at a research institution in a developing country other than their own. The purpose of these fellowships is to enhance the research capacity of promising scientists, especially those at the beginning of their research career, helping them to foster links for further collaboration.

These fellowships in natural sciences are available for the students from developing countries (employed by a research institution in a developing country) holding at least an MSc or equivalent degree.

**Deadline:** 07 October 2024

For queries and further details:

[exchanges@twas.org](mailto:exchanges@twas.org) and <https://twas.org/opportunity/twas-fellowships-research-and-advanced-training>

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