



COMSATS Newsletter

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

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COMSATS through its Centre of Climate and Sustainability (CCCS) held three events on sidelines of COP27, Egypt (details on page 2)

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From the Executive Director's Desk

Year 2022 saw some of the most significant developments, particularly in the field of Science & Technology. December 25, 2021, saw launch of James Webb, as a landmark event to welcome the year 2022. However, 2022 saw, amidst multi-dimensional issues that the world faced, some of the major developments in Science & Technology on unprecedented scale in the last few decades. The list of discoveries, innovations and achievements is long. Nevertheless, it is important to mention some of them here. Years of research resulted in the production of first draft human genome sequence; a new AI system made possible creation of realistic images and art from a description in natural languages, Chat GPT, Organ Ex, Mercedes Benz Vision EQXX, 1915 Canakkale Bridge. Aurinovo, Plantation in Lunar soil, production of transportation fuel from CO₂ & Direct Air Capture (DAC), Largest Clean Energy Corridor, Hualong One project, Launching of Shenzhou XIV & XV, Auto Metrological Monitoring Station, and many more.

In most of the listed developments, advanced countries, i.e., Global North have contributed. Only a couple of countries belonging to the Global South figure in the list. Happily, they are COMSATS' members.

phenomenon of digitalization emerged that helped save businesses from a complete breakdown due to lockdowns across the globe. The countries with the presence of necessary infrastructure and technological know-how or with digital readiness to support remote working were quick to contain the economic decline having adapted to digitized interaction. I am content to share that an application of digital technology and telecom has been effectively implemented by COMSATS in providing medical facility through telehealth clinics to the people in remote areas with little or no access to the doctors or medical units.

A lot of investment went into new digital transformation. The challenge posed by the digital transformation was dealt with greater success in developed world than the developing economies.

The statistics at the innovation index and patents registration index are considered a measure of progress of a country. This is one aspect. Another aspect related to it is the dependence of developing countries for getting the copyright and patent registration, the authority of which rests with mostly the developed countries. This, I see not just an indicator of the progress of a country in Science

During the COVID-19 Pandemic, the

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COMSATSSecretariat

HIGHLIGHTS FROM COMSATS SECRETARIAT

Preparations of 24th COMSATS Coordinating Council Meeting

Preparations for the 24th Coordinating Council Meeting remained an important undertaking of COMSATS Secretariat during November-December 2022. The meeting is being hosted by COMSATS Centre of Excellence in Pakistan, the International Center for Chemical and Biological Sciences (ICCBS), Karachi, Pakistan, on 25th and 26th January 2023. Apart from the Council members, the meeting will be attended by representatives of partner international organizations, as well as members of recently appointed COMSATS' Technical Advisory Committee, as observers.

The agenda and working paper of the meeting had been prepared with necessary consultations and disseminated to the Council members and the observers of the meeting. Under relevant agenda items, the Council members will, inter alia, be deliberating upon the ongoing programmes of COMSATS, as well as proposed new initiatives. A highlight of the deliberations would be election of the new incumbent for the Chairpersonship of the Council, currently with Egypt.

To review preparations for the Council Meeting and finalize the organizational matters, Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, visited ICCBS, Karachi, on 26-27 December 2022. Another objective was to strengthen the ongoing collaboration between COMSATS and ICCBS.

During discussions with ICCBS' officials, Ambassador Zakaria considered COMSATS Coordinating Council a forum for S&T collaboration among the developing countries, including tangible R&D projects, long and short-term capacity building activities, exchange of human and technological resources, etc. In this regard, the important agenda items and proposals to be taken up at the Council's forum were also discussed.

Ambassador Zakaria held a detailed meeting with the Director ICCBS, Prof. Dr. M. Iqbal Choudhary, and exchanged views on extending the Centre's research facilities to other Member States of COMSATS, considering it among the best research centres in the country working on chemical and biological sciences. He also discussed means to strengthening South-South and Triangular cooperation in the fields of science and technology in order to help address the socio-economic

challenges the developing world is currently facing.

Ambassador Zakaria also visited various laboratories and research facilities of the Centre and was pleased to witness the high-standard research activities being carried out by the scientists at the Centre's state-of-the-art laboratories.

Diplomats met during the reporting period were also sensitized about the Council meeting, and those belonging to COMSATS' member states were especially apprised about the council's undertakings and prospective discussions of the Meeting. During a visit to COMSATS University Islamabad (CUI) (Page 10), its Rector was also urged to actively participate in the Council Meeting.

International Events and Participation

World Science Day for Peace and Development Event

COMSATS, in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO), Standing Committee for Scientific and Technological Cooperation (COMSTECH), Pakistan Academy



of Sciences (PAS), ECO Science Foundation (ECO-SF), and Pakistan Science Foundation (PSF) organized an event to observe World Science Day (WSD) for Peace and Development 2022. Held on 16th November 2022, the event bore the theme "Basic Sciences for Sustainable Development" in connection with the year 2022 being marked as "International Year of Basic Sciences for Sustainable Development". The event had the participation of scientists, students, science managers and general public, and consisted of talks and panel discussion by renowned scientists and academicians.

The meeting was opened by Prof. Dr. M. Iqbal Choudhary, Coordinator General of COMSTECH, gave a brief talk on the importance of basic science and shared his personal experiences in this respect. Prof. Dr. Shahid Mahmood Baig, Chairman of PSF, Prof. Dr. Tasawar Hayat, Secretary General of PAS, Dr.

Sayed Komail Tayebi, President of ECO-SF, Dr. Youssef Filali-Meknassi, Director of UNESCO, including Prof. Dr. Zabta Khan Shinwari, Prof. Dr. M. Aslam Baig, Dr. Nazeer Muhammad, and Prof. Dr. Shahid Mahmood Baig spoke on the occasion highlighting the significance of the day and how S&T could help provide solutions to a number of issue facing the world today, inter alia, pertaining to STEM education, agriculture, water resources, energy, environment, cooperation in S&T, and sustainable development.

In his speech on the occasion, Executive Director COMSATS, Ambassador Dr. Nafees Zakaria, stated that COMSATS as an intergovernmental organization of 27 developing countries has been promoting science and technology through a variety of initiatives related to capacity-building; collaborative research and development; and exchange of knowledge, experiences, good practices

and technological resources among its member countries.

Webinar on "Digital Health, the New Normal: Innovation and Acceptance in Africa"

COMSATS organized a webinar on "Digital Health, the New Normal: Innovation & Acceptance in Africa", on 7th December 2022. The aim of the event was to analyze digital health trends in African countries before, during and after the COVID-19 Pandemic. Held from the platform of COMSATS Telehealth Programme (CTH), the event had the participation of around 45 from various African countries.

Dr. Azeema Fareed, Additional Director Health/Incharge CTH, opened the event by sharing event's objectives that were in line with the global strategy of WHO aiming to promote knowledge sharing

...continued from page 1

& Technology but also an impediment in the way of the developing countries to figure duly on the two indices mentioned herein.

The overarching objective of COMSATS was to bridge the knowledge and technology gap between the developed and developing countries. The Pakistani Nobel Laureate and Theoretical Physicist, Prof. Dr. Abdus Salam, envisioned COMSATS to utilize the developing countries' expertise and resources to collectively attain this objective. The network of 24 Centres of Excellence (COEs) established by the COMSATS' Member States provides a solid foundation as a means to bridge the gap.

The collective strength and exploiting of its full potential hold the key to speedup pace of progress of scientific development and innovations.

The Member States' Governments can best utilize the expertise of these COEs

to meet the contemporary challenges, such as Food Security, Climate Change, pandemics, global economic meltdown, digitization, and application of emerging technologies. It will make the governance efficient and effective. Alignment of use of the CoEs' expertise with scientific solutions to help COMSATS' Member States to achieve SDGs needs to be looked into.

A well-defined strategy and collective approach to attain the foundational objectives of the forum is on the anvil.

Clusters of COEs with focus on specific areas of expertise will make major impact in terms of speedy and beneficial progress.

Venture into new technologies pertaining to the agricultural sector to address not just the food security but also add export capacity to meet the world demand and hence strengthen South's economies.

Medicines, UV-based technological innovations, use of 3-D printers in a variety

of industrial products' manufacturing, Aviation, Space Sciences, Emerging Technologies, Industrial applications of chemical and biosciences from patents to the commercial use are some of the areas that COMSATS will venture into with scientific breakthroughs.

It will pave way for scientific innovations in great numbers, create employment opportunities, and result in wide spread economic prosperity. R&D is inevitable if the developing countries want to reduce the technology and knowledge gap with the developed world.

Advances in terms of 6G, AI, Fin-Tech, Autonomous Robots, Biotech, High-Powered Lasers, accompanied with Internet of Things, Blockchain Technology, World Wide Web, and 3-D Printing, are products of the R&D in science and technology which have now become the tools of unprecedented digital and economic might.



and collaboration in digital health. She stated that COMSATS through its Telehealth Programme is well-placed for fulfilling this objective.

Speaking on the occasion, Ambassador Nafees Zakaria, Executive Director COMSATS, remarked that scientific progress and technological innovation was the major contributor towards successful global public health response during COVID-19. Dr. Zakaria also presented COMSATS Telehealth as a success story that got patronage of Government of Pakistan resulting in expansion of this project to remotest areas of Pakistan. He hoped for emulation of such services in COMSATS' member countries to help the less privileged and marginalized communities. He also deemed collaboration among developing countries necessary for joint publications based on indigenous research and success stories; policy and strategy sharing at government and institution levels; and trainings and capacity-building in digital technologies for health.

The technical session of the webinar consisted of seven talks and was moderated by Mr. Derrick Muneene, Unit Head, Capacity Building & Collaboration Digital Health & Innovation Department, WHO, Geneva. Sharing his views, Mr. Derrick stated that Asian and African region have a lot

of commonalities, such as population, infrastructure and adaptation of digital technologies. He emphasized the growing need for investment in digital health to help build robustness and resilience of health systems towards future shocks.

First talk was delivered by Professor Lydia Aziato, Vice Chancellor, University of Health and Allied Sciences (UHAS), Ghana. To help post-COVID integration of digital technologies, Dr. Aziato deemed it vital to adopt an inclusive approach bringing together practitioners of traditional medicine as well as uneducated people.

Mr. Adeniyi Daniel Folayan, Research Fellow & Technical Assistant, African Centre for Digital Health & Policy Research (ACDHPR), shed light on pre and post COVID differences in digital health policy of Africa.

Meetings with Diplomatic Community

During the reporting period, a number of meetings were held by the Executive Director COMSATS with members of diplomatic community in Islamabad. Being held soon after Dr. Zakaria's appointment as the Executive Director COMSATS, these meetings served as opportunities to revitalize relations with these embassies. Apart from exchange

of pleasantries and understanding on future cooperation, the following were common features of these meetings:

1. COMSATS' undertakings that are tailored to benefit COMSATS' Member States in various areas of Science, Technology and Innovation (ST&I), and linkages at national and international level.
2. Sensitization on the upcoming meeting of COMSATS Coordinating Council that comprises heads of COMSATS' Centres of Excellence (CoEs).
3. The importance that the member countries associate with COMSATS and assurances of the diplomats' highest consideration of COMSATS' mandate and operations.
4. Felicitations to Dr. Zakaria who had recently assumed charge as the Executive Director COMSATS.

Ambassador of Ethiopia to Pakistan

On 10th November 2022, the Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, held a meeting H.E. Mr. Jemal Beker Abdula, Ambassador Extraordinary and Plenipotentiary of Ethiopia.

Thanking the Honorable Ambassador on the occasion, Dr. Zakaria also congratulated him on the opening of Ethiopian Embassy in Islamabad recently. A briefing was also received by the Ambassador on COMSATS' undertakings that are tailored to





benefit COMSATS' Member States in various areas of ST&I. H.E. Mr. Abdula expressed keen interest in COMSATS' programmes and considered South-South Cooperation an effective tool in addressing challenges of the South.

Ambassador of Morocco to Pakistan

Also on 10th November 2022, the Executive Director COMSATS met with H.E. Mr. Mohamed Karmoune, Ambassador of the Kingdom of Morocco. During the meeting held at his office at the Embassy of Morocco, Ambassador Karmoune felicitated Dr. Zakaria on assuming office at COMSATS Secretariat and assured him that Morocco attaches great importance to COMSATS. Mr. Karmoune thanked Dr. Zakaria for the briefing.

Ambassador of Kazakhstan to Pakistan

On 16th November 2022, Ambassador Dr. Mohammad Nafees Zakaria,



Executive Director of COMSATS, paid a courtesy call on the Ambassador of the Republic of Kazakhstan, H.E. Mr. Yerzhan Kistafin, at his office in the Embassy of Kazakhstan in Islamabad.

H.E. Mr. Kistafin thanked Dr. Zakaria for the briefing and assured him of Kazakhstan's full support to COMSATS' mandate.

High Commissioner of Bangladesh to Pakistan

On 22nd November 2022, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, paid a courtesy call on the High Commissioner of Bangladesh to Pakistan, H.E. Mr. Md. Ruhul Alam Siddique, at his office in the Embassy. The Honourable Ambassador expressed keen interest in COMSATS' programmes and was especially appreciative of various cooperative activities being run under the umbrella of COMSATS S&T Centres of Excellence.



Ambassador of Yemen to Pakistan

On 23rd November 2022, H.E. Mr. Mohammed Motahar Alashabi, Ambassador of the Republic of Yemen to Pakistan, visited COMSATS Secretariat, and held a meeting with Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria.

Welcoming the Honourable Ambassador, Dr. Zakaria appreciated his support towards facilitating Yemen's accession to COMSATS as one of the twenty-seven Member States. H.E. Mr. Alashabi expressed keen interest in building mutually beneficial cooperation in areas of common interest.

Ambassador of Türkiye to Pakistan

On 25th November 2022, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, paid a courtesy call on the Ambassador of the Republic of Türkiye, H.E. Mr.



Mehmet Pacaci, at his office in the Embassy of Türkiye in Islamabad. He also appreciated active participation of TÜBİTAK (COMSATS' Centre of Excellence in Türkiye) in COMSATS' programmes and activities. The Honourable Ambassador thanked Dr. Zakaria for the briefing and assured him of Türkiye's full support to COMSATS' mandate.

Ambassador of China to Pakistan

On 28th November 2022, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, paid a courtesy call on the Ambassador Extraordinary and Plenipotentiary of the People's Republic of China, H.E. Mr. Nong Rong. Mr. Rong appreciated active participation of the Tianjin Institute of Industrial Biotechnology



(TIB) and the International Center for Climate and Environment Sciences (ICCES) (COMSATS' Centres of Excellence in China) in COMSATS' programmes and activities. Dr. Zakaria also appreciated the progress made by China in various areas of science and technology and hoped that COMSATS' Member States would greatly benefit from China. The Honourable Ambassador assured him of China's full support to COMSATS' mandate.

Ambassador of Jordan to Pakistan

On 13th December 2022, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, paid a courtesy call on the Ambassador of the Hashemite Kingdom of Jordan, H.E. Mr. Ibrahim Yala Al Madani. Dr. Zakaria also appreciated active participation of Jordanian S&T Institutions in various programmes of COMSATS. The Honourable Ambassador thanked Dr.

Zakaria for the briefing and assured him of Jordan's full support to COMSATS' mandate.

Visitors to COMSATS Secretariat

Delegation of Kazakhstan's Ministry of Science and Higher Education and Kazakhstan's Embassy

On 1st December 2022, a six-member delegation comprising officials of Kazakhstan's Ministry of Science and Higher Education and Kazakhstan's Embassy in Islamabad paid a visit to COMSATS Secretariat. The delegation included Mr. Ahmed-Zaki Darkhan, Chairman of the Committee of Science of the Ministry of Science and Higher Education (COMSATS Focal Ministry in Kazakhstan); and H.E. Mr. Kistafin Yerzhan, Ambassador of Kazakhstan to Pakistan.

During the meeting, Mr. Irfan Hayee, Additional Director (Programmes), made a detailed presentation on the ongoing programmes and planned activities of the organization. Other senior officials of COMSATS also delineated on specific activities related to COMSATS Network of Centres of Excellence. They highlighted the active role being played by the Kazakh Government in COMSATS' statutory bodies and participation of Al-Farabi Kazakh National University (KazNU)

It is with deep sorrow that the Commission on Science and Technology for Sustainable Development in the South (COMSATS) condoles demise of the Honorable Jiang Zemin, former President of the People's Republic of China, a statesman, an iconic and visionary leader.

Mr. Jiang Zemin has set the course for China's march towards global leadership. China stands tall as an example of sustainable growth for the countries of the South.

As China continued to rise during the last three decades the momentum has gained pace under the current dynamic leadership of President Xi Jinping. COMSATS has been a beneficiary of its founding member China's efforts towards international cooperation in science and technology since its inception in 1994.

Eulogy by Ambassador Dr. M. Nafees Zakaria, Executive Director of COMSATS on sad demise of Former Chinese President Jiang Zemin



– COMSATS Centre of Excellence in Kazakhstan, in R&D and capacity-building programmes.

The delegation expressed interest in strengthening cooperative ties between Kazakh research institutions and COMSATS' Network members, particularly in the areas of IT, Engineering, Biotechnology, Oil & Gas, and Chemicals. The agreed means of cooperation included: networking among experts and young scientists in various fields; collaborative capacity-building events; joint journal publications; sharing of expertise on intellectual property and technology transfer, and joint efforts towards SDGs. It was further agreed that the Kazakh Ministry of Science and Higher Education through COMSATS' platform will provide scholarship opportunities to developing countries, as well as grants for commercialization of research projects, and facilitate exchange of students, researchers and experts.

The Ministry also agreed to facilitate MoU signing between CUI and Satpayev University, Almaty. The officials of COMSATS Secretariat and CUI welcomed these proposals and resolved to work closely with Kazakh institutions to facilitate South-South cooperation in science and technology.

Chairman Federal Public Service Commission (FPSC) of Pakistan

On 7th November 2022, Chairman Federal Public Service Commission (FPSC), Capt. (R) Zahid Saeed, paid a visit to Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, and congratulated him on his appointment at this position. During the meeting with Dr. Zakaria, Capt. (R) Saeed extended felicitations and hoped that under Dr. Zakaria's leadership, COMSATS would further thrive and succeed in achieving its mandate of science-led development.



SAPM on Youth Affairs, Government of Pakistan

On 14th November 2022, Ms. Shaza Fatima Khawaja (MNA), Special Assistant to the Prime Minister (SAPM) on Youth Affairs, Government of Pakistan, visited COMSATS Secretariat and held a meeting with Ambassador Dr. Muhammad Nafees Zakaria, Executive Director COMSATS.

During the meeting, Ms. Shaza was apprised of COMSATS' programmes and undertakings aimed at socio-economic development in the Global South through scientific tools and mechanisms. Thanking Dr. Zakaria for the briefing, Ms. Shaza expressed interest in COMSATS' activities with the aim of building cooperation in areas of mutual interest.

The importance of meaningful engagement of youth in various sectors of economy also came under discussion during the meeting. Dr. Zakaria opined that equipping the youth with necessary skills of modern times and STEM education can aid the progress towards sustainable development. It was also agreed that there is a huge potential in the youth in the global South region.

Member of the British Parliament

Ms. Yasmin Qureshi, Honorable Shadow Minister for Women and Equalities,



United Kingdom, and Member of the British Parliament, visited COMSATS Secretariat, on 22nd November 2022, and held a meeting with Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS. During the meeting, Ms. Qureshi congratulated Dr. Zakaria on his appointment. She was apprised of COMSATS' programmes and undertakings aimed at socio-economic development in the global South through scientific tools and mechanisms. Thanking Dr. Zakaria for the briefing, Ms. Qureshi expressed interest in COMSATS' activities with the aim of building mutually beneficial North-South cooperative ties.

Dr. Zakaria noted that meaningful cooperation between global South and global North is significant for progress towards sustainable development.





Collaborative Activities under ANSO-BIDI

Special Sub-forum on ANSO-BIDI School, theme: Innovation, Entrepreneurship, and Sustainable Development

Under the Belt & Road International Innovation Development Institute Network (ANSO-BIDI Institute Network) of the Alliance of International Science Organizations (ANSO), the Centre for Environmental Economics of the University of Chinese Academy of Sciences (CEE-UCAS), China, organized a special sub-forum themed 'Innovation and Entrepreneurship, Sustainable Development'. The session was organized on the sidelines of the Greater Bay Area Science Forum 2022 (GSF-2022) on 13th December 2022. The objective was to highlight the role of science, technology and innovation, as well as green entrepreneurial ventures in view of emerging global challenges.

The session was opened by Prof. Desheng Wu, Director of the Research Centre for Environmental Economics of UCAS, China. In his speech on the occasion, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, deemed innovation and

entrepreneurship crucial in finding sustainable solutions to current global challenges, such as population explosion, climate change, and food insecurity. He also considered collaboration between business and academia important in developing knowledge and skills relevant to industry.

Dr. Zakaria also highlighted COMSATS' role in facilitating socio-economic growth of the developing countries through means, such as capacity-building, collaborative research and development, and exchange of knowledge, experiences, best practices, and technological resources among member countries.

The ceremony was followed by the fifth module of the ongoing ANSO-BIDI School on 'Innovation, Sustainable Development and Leadership Enhancement'.

Fifth Term of COMSATS-ANSO-UCAS Training on Sustainable Development and Leadership Enhancement

Under the Belt & Road International Innovation Development Institute Network (ANSO-BIDI Institute Network), COMSATS joined hands with the

Chinese Alliance of International Science Organizations (ANSO), Centre for Environmental Economics of the University of Chinese Academy of Sciences (UCAS), and other member of ANSO-BIDI Institute Network to organize the fifth term of ANSO-BIDI School (online training) on 'Innovation, Sustainable Development and Leadership Enhancement' (Fall '22).

Starting on 9th November 2022, the event was opened by Prof. Desheng Wu, Dean of the Belt and Road College of UCAS, Director of the Research Centre for Environmental Economics of UCAS, China, and also featured talks by leading officials of participating organizations.

Speaking at the opening, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, opined that socio-economic development of a country largely depends on its scientific and technological prowess. He noted that the countries of the South are at a disadvantage, primarily due to the absence of well-equipped scientific institutions, technical infrastructure, research funding and necessary human capital. He considered it essential for the developing countries to make concerted efforts to develop their S&T capacities in terms of higher education, science, technology, indigenous research and development.

The ceremony was followed by first module of the training during which Prof. Philippe De Maeyer from the Department of Cartography and Geographic Information System (GIS) of Ghent University (UGent), Belgium, delivered lecture on 'Communicating Spatial Data Cartography'.

The training has 10 weekly modules spanning over 3 months during which professors and experts from reputable international scientific and academic institutions would impart training on



topics concerning subject theme. Among others, 47 trainees belonging to Member States of COMSATS, including Iran, Kazakhstan, Nigeria, Pakistan, Palestine and Syria, as well as COMSATS Secretariat are participating in the training course.

Third International Training Course on Industrial Synthetic Biotechnology (December 12 – 13, 2022)

The third International Training Course on 'Industrial Synthetic Biotechnology' (online training), was jointly organized by the Tianjin Institute of Industrial Biotechnology (TIB), in collaboration with the Alliance of International Science Organizations (ANSO); and COMSATS from the platform of COMSATS Centre for Industrial Biotechnology (CCIB). The training course aims to enhance the capacity of researchers and scientists belonging to the Belt and Road countries and beyond, especially COMSATS' member countries, in the field of industrial synthetic biotechnology, through theory, practice, and application.

The training was inaugurated on 12th December 2022, in Tianjin, China. The ceremony was attended by a large number of scientists and

officials, including members of CCIB's Consultative Committee and Technical Advisory Committee, distinguished scientists of TIB, officials of COMSATS Secretariat, senior government officials from Ministry of Science and Technology (MoST), China and the local government of Tianjin. Fifty-two researchers and scientists belonging to developing countries, including Bangladesh, Burkina Faso, China, Egypt, Indonesia, Nepal, Nigeria, Pakistan, Sri Lanka, Syria, Thailand and Uganda, took part in the course as trainees.

In his inaugural address, Deputy Director-General TIB and Director CCIB, Prof. Jubin Sun, highlighted the disruptive impact of Industrial Synthetic Biotechnology for socio-economic sustainable development. He reiterated TIB's commitment to promoting eco-friendly development in industrial sector through innovation-driven synthetic biology and green bio-manufacturing. He thanked COMSATS and ANSO for their collaboration for holding this training.

In his opening speech, Director-General TIB, Prof. Yanhe Ma, extended a warm welcome to all the participants. He thanked and appreciated the support of COMSATS and other partners.

In his address, Prof. Jinghua Cao, Executive Director ANSO, opined that trainees will broaden their skill sets related to innovation and creativity in the field of biotechnology through various modules being covered by this training, which in-turn will prove to be instrumental in the 'Belt and Road' region's growth.

Speaking on the occasion, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, thanked TIB and other collaborative organizations for joining hands with COMSATS to hold this valuable training course benefiting developing countries, particularly the COMSATS' member countries. Dr. Zakaria emphasized the significance of industrial synthetic biotechnology and its application in high tech, energy, medical, agriculture, and food sectors. He particularly stressed upon exploration of natural ways to supplement conventional agricultural practices.

In her remarks at the occasion, Ms. Xuemei Yang, Division Director, Department of International Cooperation, China's Ministry of Science and Technology welcomed the initiative of holding the training that can mentor young scientists capable of making



remarkable contributions in the field of biotechnology.

Subsequently, Prof. Sun Jibin made a keynote presentation, in which he provided an overview of industrial applications of synthetic biology and connected it to the solutions to the most critical issues currently faced by the world facing resource conservation, human health, and environmental preservation today. He particularly shed light on various methodologies and enabling technologies, as well as some major achievements in the field of industrial technology.

Executive Director COMSATS' Activities as CUI Pro Chancellor-II

Presiding Session of 18th Convocation of CUI-Islamabad

COMSATS Centre of Excellence in Islamabad, COMSATS University Islamabad (CUI), held its 18th Convocation on 3rd November 2022. Ambassador Dr. Mohammad Nafees Zakaria, Executive Director of COMSATS, attended the Convocation as the ex-officio Pro Chancellor-II of the University for the first time after assuming charge as Executive Director. He also chaired a session of

the ceremony where he addressed an august gathering of University's Directors, Deans, faculty members and graduating students.

Speaking on the occasion, Dr. Zakaria appreciated the efforts and hard work of graduating students and encouraged them to develop such values that could help them outshine in their professional lives and overcome any challenge that comes their way. Considering the increasing role of technology, he also urged students to keep pace with global advancements in technology. Further, he considered the role of parents and teachers equally significant in the success of the students. He also lauded the phenomenal growth and expansion of the University and considered it a vessel for transmission and generation of new knowledge, and hence adding to the intellectual and economic wealth of Pakistan.

Mentioning Government of Pakistan's efforts towards developing a knowledge-based economy, Dr. Zakaria stated that the government has made concrete efforts for establishing new universities and strengthening the existing ones. Despite the global economic crisis, it has allocated funds for human resource development with a view to provide highly qualified faculty to the institutions of higher learning

in the country, which ensured credible and market-driven degree programmes of higher education. Similarly, many projects have been planned for research and development activities, which are manifested in the form of research grants, high quality laboratories, university – industry linkages, and patent filing, among others.

Inauguration of FIT Conference-2022

The Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria, inaugurated the 19th International Conference on Frontiers of Information Technology (FIT-2022) organized by COMSATS University Islamabad (CUI), alongside Pakistan's Minister for Planning and Special Initiatives, Dr. Ahsan Iqbal. (Details on page 17).

Speaking at the opening ceremony, Ambassador Dr. Mohammed Nafees Zakaria lauded the efforts of FIT organizers for providing a useful platform to researchers, scientists, and industry practitioners from across the world to present their cutting-edge research as well as sharing latest insights useful for industry. He informed that the COMSATS lays great emphasis on building indigenous capacities and

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SPECIAL SECTION: COMSATS' PARTICIPATION IN INSME 18TH ANNUAL MEETING AND COP27

Executive Director COMSATS Participates as a Panelist in INSME Annual Meeting

The International Network for Small and Medium Enterprises, held its 18th Annual Meeting on 1-2 December 2022, in Baku, Azerbaijan, in collaboration with KOBIA, Azerbaijan's Department for SMEs. The meeting had the participation of state officials, businessmen, representatives of international organizations, and member institutions of INSME from different parts of the world. COMSATS was invited to participate in the Meeting being one of the member institutions of the Network that is based in Italy.

The two-day event bearing, the theme 'Empowering SMEs: Economic Diversification and Green Growth', comprised of four sessions of panel discussions during the first day, focusing on sustainability and energy challenges for SMEs; building SMEs readiness to cope with current and future crises; promoting innovation for a green growth; and policy responses.

The Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, was invited to participate as a panelist in one of the sessions of 18th

Annual Meeting of INSME, entitled 'Building SMEs readiness to cope with current and future crisis'. In his panel remarks, Dr. Zakaria suggested that SMEs need to consider adding diversity to their products and services; adapt to the changing dynamics of the business world through use of technologies, go beyond borders to acquire greater share in the regional and global markets and compete with MNCs; and work towards preparedness to survive in the face of challenges.

On the second day, General Assembly of INSME was held where board members and representatives of the member organizations participated. Speaking on the occasion, Ambassador Zakaria apprised about COMSATS, as well as its ongoing and future activities. Welcoming cooperation between COMSATS and INSME, he shared prospective interventions that could be made jointly by the two organizations. He urged the international community and intergovernmental organizations to play their part in supporting the developing countries to bridge their resource gaps.

Moreover, COMSATS will continue to play its advocacy role by sensitizing the governments of its member countries regarding the measures needed to be

taken in order to support the SMEs with assistance for formulation of policy frameworks, remarked Dr. Zakaria.

The meeting concluded on the note of expanding regional and international collaboration to support SMEs and giving voice to their concerns and challenges.

Remarks by Executive Director COMSATS, Ambassador Dr. Mohammad Nafees Zakaria, as panelist of Session on 'Building SMEs Readiness to Cope with Current and Future Crisis'

SMEs are backbones of any economy. They generate economic activities, employment, and help in socio-economic uplift. In nutshell, SMEs help alleviate poverty and improve living standards. These three aspects are vital for any country and the government. All three reinforce each other and lead to social harmony and creates space for governments to invest in the growth of other sectors of economy and society.

Over time, a number of studies have been carried out by entities like the World Bank, Global Economic bodies, Regional Organizations and individual Analysts, highlighting the importance and significance of SMEs in terms of contribution to the economy,



employment generation, and societal prosperity. Studies have also reflected that natural and man-made disasters, economic recessions and pandemics have adversely impacted the SMEs.

Those studies and analyses clearly indicate the high stakes of the respective governments in the sustainability of SMEs. World has experienced the economic devastation caused by the Great Depression of 1930s, a series of financial crises, wars, the ongoing pandemic COVID19 and climate change caused disasters. The analyses assessing the impact of the pandemic and effects of climate change have indicated that yet another recession is in the offing.

In June this year, reportedly global market downturn has wiped out 13 trillion dollars off world stocks, mainly in the developed economies. But the trickle-down effect on smaller economies would be inevitable. Coming years will be more difficult. Therefore, preparedness will be an imperative. The latest developments in the geo-political and geo-strategic context fueling trade war and competition for dominance should be worrisome. Conflicts, irrespective of its type are untenable, particularly, economically. Its time for resolution of disputes, cooperation and reconstruction.

By virtue of its relevance to the interdependent regional and global

economic stability, peace and security, the international community and intergovernmental bodies should feel obliged to duly contribute to the efforts towards SMEs' empowerment and making them resilient. Individual governments, particularly in the developing world, do not have the capacity to provide necessary financial and infrastructural support to establish an enabling environment for SMEs to flourish and survive in the wake of crisis. The governments and intergovernmental bodies should work together in sync and with synergy.

The ability of developing economies to financially support SMEs to take them out from the setbacks or put in place financial protection for the future, is limited. Nevertheless, given the significance of SMEs' contribution to any country's economy or GDP, it is a must for the governments to frame supportive policies, provide financial support and back up to cater for the disruption in the supply chain.

Emerging markets and developing economies with large foreign borrowing and their dependence on external financial support would be in double trouble as global recession looms large over the developed economies that may limit the extent of support they extend. But then there are always opportunities in the challenges. For example, when COVID led to the cancellation of orders

of textile products and posed existential threat to the industry, the manufacturers adapted to making protective gears with a range of varieties. Innovations led to the development of UV sanitizers, production of diagnostic kits, preventive vaccines, treatment equipment and protective commodities. Phenomenon of digitization gained momentum due to the COVID19. According to the country studies, 70% SMEs intensified their use of digital technologies. 75% SMEs surveyed in the UK have moved to the remote working while a third have invested in new digital transformation. Likewise, surveys in Brazil and Canada have also seen businesses transforming to eCommerce as the way forward.

However, in developing economies, there is a need to create awareness among policy makers in the governments for framing conducive policies to invest, encourage innovations, support skill development, establish connectivity and coordination among Educational & Vocational Institutes-Business sector and Youth Affairs or Manpower Affairs authorities, offer incentives, provide temporary financial relief in crisis times, including monetary support, tax relief, subsidies, easy access soft loans from SME banks.

International organisations like COMSATS can provide demand-driven services like formulation of policy frameworks for governments, training



programs for SMEs pertaining to innovations, adaptation and application of technology, and digitization. Intergovernmental organizations can help 'Actualise' policies framed by the governments for SMEs growth by bridging the resource gaps. Therefore, our preparedness must consider the challenges and implications, and work on converting them into opportunities with the use of technology, innovations, and alternatives. By embracing digital technologies, SMEs can maintain business continuity.

The perils surrounding both the pandemic and climate change phenomena are surfacing in different manifestations. Digitization enables SMEs to minimize associated vulnerabilities.

Innovative and technology-based SMEs can turn their attention to think about expanding outside of domestic borders to enter intra-regional and international markets as well as to compete with multinational companies to capture higher market share in domestic market and to make SMEs technologically competent. There are numerous good practices and success stories across the globe to learn and benefit from. COMSATS is gearing up to help governments using the resources available at its disposal, such as its network of 24 Centres of Excellence nominated by COMSATS' member countries.

COMSATS' COP27 Side Events

COMSATS Centre for Climate and Sustainability (CCCS) was established with a view to provide an institutional platform for connectivity, coordination, regional and international collaboration to address climate change and sustainable development. This reporting period, CCCS held discussions on the sidelines of COP27, Egypt, on approaches for coherent pursuit of climate action and sustainable development and also highlighted the importance of innovative financial mechanisms and South-South financial links.

Multi-stakeholder and Integrated Approach to Climate Resilience Finance (November 9, 2022)

On 9th November 2022, COMSATS Centre for Climate and Sustainability (CCCS) organized an Interactive Dialogue on Multi-Stakeholders and Integrated Approach to Climate Resilient Finance', on the sidelines of UNFCCC 27th Conference of Parties (COP27). The event was held in collaboration of Islamic World Educational, Scientific and Cultural Organization (ICESCO), Regional Center for Renewable Energy and Energy Efficiency (RECEE), and Egyptian National Commission for UNESCO &

ICESCO, at the ICESCO's pavilion in Sharam El Sheikh, Egypt.

The event was part of a series of sessions held on the sideline of COP27 at ICESCO's Pavilion. Panelists for the event included from Islamic Development Bank (IsDB), Saudi Arabia; ICESCO, Morocco; Regional Center for Renewable Energy and Energy Efficiency (RCEEE), Egypt; Egyptian National Commission for UNESCO, Egypt; and Climate Resourcing Coordination Center (CRCC), Pakistan. Relevant experts discussed various aspects of the event-theme including climate finance; strategies for drawing investments corporate sector in climate initiatives; identifying gaps, opportunities and challenges in capacity building to mobilize Climate Change financing; transformative climate finance for just transition; and multi-stakeholders common approach for Climate Action.

Prof. Dr. Raheel Qamar Head of Science and Technology Sector, ICESCO gave introductory remarks in which he emphasized the need for an alternate vision for growth and development that can lead to economic growth, and social and environmental well-being of countries through affordable green technologies.

In his opening remarks, Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, opined that devastations made by recent climate change events call for making this decade a decisive one in terms of climate response before globally warming becomes an insurmountable challenge.

The technical talks commenced with that of Mr. Yusuf Olatunji, Senior Climate Change Specialist, Islamic Development Bank (IsDB), who noted that Paris Agreement demands for a balance between mitigation and





adaptation financing and emphasized the need to take into account the environmental and social benefits that accrue as returns of their investment.

Dr. Manal Al Fawzy Ahmed, Chair, UNESCO Man and Biosphere Project, talked about efficient use of Climate Finance for achieving SDGs 2030 Agenda. Sharing her views, Dr. Fawzy added that preparing strong project bids, comprehensive climate change adaptation plans, and accreditation with any of the climate funds are generally challenging processes, especially when employing Direct Access modality.

Dr. Foued Alyani, Expert, Science and Technology Sector, ICESCO, informed about ICESCO's contributions towards Climate Action that include active participation in COP27 having more than 50 side events with diverse areas of education, science and culture. He stressed the need for climate funding to be rationalized in favor of underdeveloped countries, especially owing to their lack of technical and human resources.

According to Mr. Ahmed Abdelrasoul, an environment expert from RECREE, there is a significant funding gap between needed and accessible climate finance through National Determined Contributions (NDCs). This finding is based on data from eight climate

finance donor organisations, including the Green Climate Fund. He informed that RECREE is making efforts to bring business sector on-board for making climate-friendly investments.

Workshop on Bankable Climate Change Adaptation & Mitigation Projects (November 13, 2022)

A training workshop on 'Mentoring and Coaching for the Identification and Preparation of Bankable Climate Change Adaptation & Mitigation Projects' was organized by COMSATS, from the platform of CCCS. The workshop was held in collaboration with the Islamic World Educational, Scientific and Cultural Organization (ICESCO); Egyptian National Commission to UNESCO – ICESCO – ALESCO; Regional Center for Renewable Energy and Energy Efficiency (RCREEE); Regional Training Centre for Water and Irrigation Studies (RCTWS); and International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) under the auspices of the Egyptian Ministry of Higher Education and Scientific Research. Held from 13th to 15th November 2022, the workshop was hosted by RCTWS in October 6 city of Egypt.

The objective of the workshop was to develop an understanding among the participants about where to look for

climate change adaptation funding, the phases of project cycle as well as requirements of banks and donors, and acquire skills for preparing it.

The workshop was inaugurated by Engr. Tarek Elsayed, Head of the Regional Training Centre for Water Resources and Irrigation (RCTWS), on 13th November 2022. During his address, Engr. Elsayed thanked ICESCO, COMSATS, RCREEE and Egyptian National Commission for UNESCO for their collaboration in this regard. Emphasizing the significance of financing for climate resilience, Engr. Elsayed deemed knowledge and skills necessary to convert key climate adaptation and mitigation projects into project designs for obtaining suitable climate financing.

The inaugural session was jointly chaired by Dr. Foued El Ayni, Expert – Science and Technology Sector, ICESCO; Mr. Sayed Elabasy, Assistant Secretary General, Egyptian National Commission for UNESCO; Dr. Manal Fawzy Ahmed, Chair, UNESCO-MAB (Man and Biosphere) Program & Egyptian National Commission for UNESCO; Dr. Huma Balouch, Deputy Director (Programmes) at COMSATS. The speakers stressed on building the capacity of stakeholders and government representatives to develop bankable climate change adaptation projects and to adapt and build community resilience.

Technical sessions of the three-day workshop were attended by more than 40 participants, including decision makers, planners, environmentalists, researchers and professionals involved in climate change management and risk reduction issues, representing different ministers and governmental departments, universities and research institutions from Egypt, Oman, Libya, Mauritania, Pakistan, Sudan, Brunei, and Morocco.

Dr. Manal Fawzy of Egyptian National Commission for UNESCO, shared on the key concepts and approaches for addressing climate change through mitigation and adaptation, as well as the theoretical framework for planning adaptation actions to climate change.

Prof. Ahmed Hegazy from Cairo University highlighted the most important developments from recent climate change conferences as well as the significant problems that would be discussed at the COP27.

Mr. Khurram Lalani, Resource Future – Pakistan, informed about the Climate Finance Explorer, a searchable database of global public climate financing options that has assembled data on funding sources and assists relevant practitioners and stakeholders in accessing appropriate funding options.

Dr. Sohail Malik from Climate Resourcing Coordination Centre (CRCC) – Pakistan pointed out the key elements of Climate Rationale Principles, emphasizing project comprehension, looking specifically at how identification, response, data, methodology, monitoring & reporting, when used properly, facilitate development and approval process of climate change

projects.

Dr. Daniela from CIHEAM provided comprehensive guidance on project cycle management built on using the result-based management principles and the logical framework approach. She also provided information on the Interreg Next Med programme, a significant EU-funded initiative that comprises 15 countries for collaboration in the Mediterranean region. She also briefed the participants about major funding mechanisms and procedures of the new Horizon Europe initiative that supports innovation, research, and science.

Dr. Cosimo Tendi from CIHEAM apprised the participants about the fundamentals related to writing project proposals and emphasized the importance of systemic metrics that reflect the breadth of the project. He also led an interactive group exercise, during which participants discussed their project concepts, suggested climate solutions, and revised their proposals in accordance with the trainers' guidance.

Mr. Ahmed Abdelsoul from RCREEE elaborated the current state of

energizing investment for energy efficiency in the Arab world, focussing on its objectives, institutional structures, legal frameworks, financing sources, and long-term plans for Arab world.

The recommendations of the event highlighted important aspects related to: multi-stakeholders support for building data driven climate rationale to accelerate climate action for building climate resilience in developing countries; campaigning for mobilizing private sector in climate finance initiatives; capacity-building on bankable climate change projects; developing a comprehensive guide for training on submission of Climate finance proposals; addressing information fragmentation and needs for understanding on evaluation procedures of climate finance institutions.

Expert Group Roundtable Meeting on sideline of COP27 in Sharm El-Sheikh (November 16, 2022)

A roundtable meeting on 'Setting the scene in terms of national priorities, opportunities and challenges to boost bankable Climate Change Projects' was held on 16th November 2022, in





Sharam El Sheikh, Egypt. The event was organized in collaboration of Islamic World Educational, Scientific and Cultural Organization (ICESCO), Regional Center for Renewable Energy and Energy Efficiency (RECREE), and Egyptian National Commission for UNESCO & ICESCO.

The roundtable meeting aimed to develop and understanding of common challenges in scaling up financing for adaptation in line with national priorities of developing countries.

The panelists shared insights into the barriers that limit utilisation of development funds compatible with Climate resilience needs to support national adaptation agendas and identified opportunities to overcome related constraints.

The panelists of the meeting included experts from ICESCO, Morocco; Regional Center for Renewable Energy and Energy Efficiency (RCREEE), Egypt; Egyptian National Commission for UNESCO, Egypt; Regional Centre for Training and Water Studies (RCTWS), Egypt; International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), Italy, Resource Future, Pakistan; and Climate Resourcing Coordination Center (CRCC), Pakistan.

Dr. Sohail Malik from CRCC opened the Roundtable by highlighting the need for strengthened multi-stakeholder cooperation to increase the understanding of the climate context and climate rationale amongst the development planners. Dr. Malik pointed to the challenge of achieving high climate change ambition to integrate climate change and sustainable development at all transaction levels – within the donor priorities, processes and requirements; and government policies.

Prof. Dr. Ahmad Hegazy from Egyptian National Commission for UNESCO stressed that countries have to empower nature-based solutions, particularly the climate-based solutions, by encouraging better negotiations related to trade-offs and benefits between industrial countries and developing countries.

Mr. Khurram Lalani from Resource Future emphasised the significance of developing appropriate adaptation indicators, the log-frame theory of change, and other measures in addition to moving beyond the impact modelling approach.

Dr. Huma Balouch from COMSATS highlighted the potential of South-South financial links and cooperation, which she deemed crucial for investment to

support long term development in the developing Countries. She also emphasised the need to increase climate finance for micro, small, and medium-sized businesses (MSMEs) by giving them access to information and building their capacities to identify and benefit from relevant opportunities.

Dr. Cosimo Tendi from CIHEAM stated that acquiring knowledge and developing skills, and creating an enabling environment are critical for initiating the kinds of climate mitigation and adaptation projects that could draw multi-sector investment from both climate and development financial institutions.

Dr. Manal Al Fawzy Ahmed, Chair UNESCO Man and Biosphere Project, called for having evidence-based strategies to ensure funding for combating climate change. Investment in a variety of assets is necessary to enable shift to a climate-resilient economy in line with Paris Agreement.

Dr. Foued Alyani, Expert, Science and Technology Sector, ICESCO, highlighted that the main challenge faced in gaining effective access to development and climate finance lies in the constraints of human and technical capacity to meet criteria for donor proposals and reporting requirements.

SOME ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

CUI-Pakistan Strengthens Academic Cooperation and Interactions

An MoU on joint academic and scientific cooperation was signed between COMATS University Islamabad (CUI) and Ajman University (AU)-UAE on November 24, 2022. The MoU was signed during CUI delegation's visit to AU, UAE. The delegation was led by Rector CUI, Prof. Dr. Muhammad T. Afzal. During the visit, the CUI delegation also met Prof. Mustahsan Mir, Ambassador of Pakistan in Abu Dhabi, UAE.

On December 11, 2023, a delegation comprising Vice-Chancellors/ Rectors/ Presidents of universities from Nigeria, Kenya, Kazakhstan, Pakistan, Tanzania and Uganda visited CUI, Islamabad Campus. The delegates were briefed about CUI's history, faculties, departments, research activities, rankings and achievements and were shown the university's various facilities. Interest and ideas on institutional cooperation and joint activities were exchanged.

A delegation of the German Academic Exchange Service (DAAD) led by Dr. Christian Hülshörster, Director Scholarships visited CUI on November 23, 2022. The Director Scholarships highlighted DAAD's programs on scholarships, internationalization, and strengthening German cultural and language studies. Avenues for CUI-DAAD partnership including scholarships for Afghani students studying at the University, joint degree programs and institutional development programs.

Moreover, matters of academic cooperation were discussed with a number of other visiting delegations including those from:

1. Brno University of Technology (BUT), Czech Republic (December 5, 2022);
2. KAZGUU University, and L.N. Gumilyov Eurasian National University, Kazakhstan (December 9, 2022);
3. University of Toronto, Canada (December 1, 2022);
4. Edith Cowan University Australia (November 1, 2022).

CUI-Pakistan holds 19th Frontiers of Information Technology Conference

CUI organized a two-day 19th International Conference on 'Frontiers of Information Technology' (FIT-2022), on December 12, 2022, in Islamabad. Minister, Planning and Development and Special Initiatives, Mr. Ahsan Iqbal Chaudhary and Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria inaugurated the Conference. Speakers from France, Netherlands, China, Ireland, Portugal, UK, USA and Pakistan participated in the two-day conference organized by CUI in COMSTECH Secretariat, Islamabad.

The conference was the 19th Annual event organized by CUI consecutively in the last two decades. The conference has been fostering new areas of Information Technology

since its inception and has engaged experts in Software Engineering, Pattern Recognition, Image & Natural Language Processing, Data Science, Water Informatics, Smart Grid, Energy & Electronics, Signal Processing and Cyber Security.

The Conference featured 25 invited talks from distinguished experts in the cutting-edge fields took place during 19 technical sessions of the conference.

Al-Farabi KazNU-Kazakhstan signs Cooperation agreement with Universities in US and Turkey

On November 18, 2022, Associate Dean of the Penn State Law of the University of Pennsylvania (USA) Prof. Stephen Barnes met with the Chairman of the Board – Rector of Al-Farabi Kazakh National University (KazNU) Dr. Prof. Zhanseit Tuimebayev. As a result of the meeting, a number of cooperation agreements were reached, opening up opportunities for implementation of joint projects in the field of higher education and science.

In addition, the American officials provided two places for exchange students for the fall semester of 2023 worth up to US\$ 54,000, positions





of visiting researchers for professors of KazNU, as well as signed a Memorandum of Cooperation for a five-year term.

On November 25, 2022, a delegation from Turkey headed by the Rector of Ankara University, Dr. Prof. Necdet Unuvar and the Rector of Gazi University, Dr. Prof. Musa Yildiz, visited Al-Farabi KazNU. A decision was reached to carry out joint scientific projects, as KazNU, Ankara and Gazi universities have relevant qualified scientists to form a common base and jointly implement new projects.

On November 21, 2022 the Chairman of the Board – Rector of KazNU, Dr. Prof. Zhanseit Tuimebayev, met with representatives of the Parliamentary Assembly of Turkic States (TURKPA). The parties discussed the issues of joint implementation of large-scale projects.

Al-Farabi KazNU-Kazakhstan Collaborates with the University of Mississippi

The Research Center of Medicinal Plants (RCMP) of Al-Farabi Kazakh National University has started working together with scientists from the University of Mississippi in the USA. RCMP developed a popular product is a biologically active additive against influenza viruses and COVID -19. The Director of the Center, Prof. Dr.

Zhanar Zhenis, has recently visited the University of Mississippi to study in depth the active effects of this mixture on COVID-19. As a result of this research, biological products manufactured at KazNU will be comprehensively studied in modern laboratories of the American university, and its therapeutic effect in other diseases will be determined.

Al Farabi KazNU-Kazakhstan Atops QS Asia University Rankings 2023: Central Asia

Al-Farabi KazNU was included in the QS ranking of the Asian region of universities for the first time and took 44th place. KazNU is also recognized as the top university in the rating QS Asia University Rankings 2023: Central Asia. In the 2023 edition, the university has entered the top 6% in the QS Asia University Rankings.

RSS-Jordan Participates in SOLE Project Plenary Meeting

The Royal Scientific Society (RSS)'s National Energy Research Centre (NERC) participated in the SOLE Project plenary meeting, which was held in Athens on November 8, 2022, and organized by the National Technical University of Athens, the Greek partner of the project, the Jordan News Agency, Petra, reported.

The SOLE Project supports cost-effective and innovative energy rehabilitations of public buildings in the Mediterranean.

NERC team presented the pilot project of the Iskan Al-Faiha School in Madaba, implemented through SOLE in collaboration with the European Neighborhood Instrument Cross-Border Cooperation Mediterranean Sea Basin Program, with the aim of promoting the use of energy efficiency measures and renewable energy technology in public buildings and schools.

President RSS-Jordan leads Delegation to WSF 2022 in Cape Town

A delegation from the Royal Scientific Society (RSS) participated in sessions of World Science Forum (WSF) 2022 in Cape Town, South Africa. Led by HRH Princess Sumaya, President RSS, and a member of the WSF Steering Committee, the RSS contribution celebrates the WSF 2022 theme of 'Science for Social Justice'.

RSS-Jordan Participates in MENA ICT Forum 2022

HRH Princess Sumaya bint El Hassan, President of the Royal Scientific Society, attended MENA ICT Forum 2022. The event was organized by the Information and Communications Technology Association "Intaj" in partnership with the Ministry of Digital Economy and Entrepreneurship, the Ministry of Investment and the Central Bank of Jordan, bringing together 77 representatives of 50 investment funds in the region, and about 2,000 participants, including officials, experts and specialists in the public and private sectors, representing 40 countries.

During the forum, the Royal Scientific Society, the Forum's science



partner, had a team from the ICT for Development sector showcasing the sector's services and latest projects.

TÜBİTAK MAM-Türkiye hosts Spanish Polar Committee Delegation

Spanish Polar Committee Delegation visited TÜBİTAK Marmara Research Center (MAM) on September 27, 2023, to discuss the efforts on scientific collaborations and logistics processes.

The 1st Cooperation Meeting where Turkish and Spanish Researchers came together, was attended by Spanish Defense Attaché D. Angel Sevillano, Spanish Polar Committee Director Prof. Antonio Quesada, Scientist Dr. Josabel Belliure and the Captain of the Spanish Scientific Research Vessel Hesperides, Cpt. D. Rafael F. Aguirre Pastor.

The meeting was chaired by TÜBİTAK MAM Vice President for Climate Change and Sustainability and Director of Polar Research Institute, Ms. Burcu Özsoy. During the two sessions of the meeting, presentations were made by both Turkish and Spanish delegations and decisions were made on mutual logistical assistance and project collaborations between Spain and Türkiye.

TÜBİTAK MAM Participates in 14th International ISNFF Congress

TÜBİTAK MAM with support of TÜGİP introduced the Turkish Food Innovation Center during the 14th International Society for Nutraceuticals and Functional Foods (ISNFF) Congress and Exhibition held on 3-5 October 2022. ISNFF Congress and Exhibition was coordinated by TÜBİTAK MAM, presided by Assoc. Prof. Cesarettin Alaşalvar, co-held by PhenolAcTwin Project.

The 14th International ISNFF Congress, which included 9 leading keynote speakers and 134 speakers in 22 sessions, was held with the participation of approximately 330 people from 28 countries. 23 students from 10 different countries participated in competitions.

TÜBİTAK MAM-Türkiye Recognised at 9th ICCI Energy Awards

Leading professionals of the energy sector, energy investors, public decision makers, industrialists, suppliers, officials of institutions and associations, and representatives of many academic and non-governmental organizations came together at the "ICCI Energy Awards"

- prestigious Turkish energy sector awards.

The project on installing hydro units in urban water transmission lines, developed by the General Directorate of İzmir Water and Sewerage Administration (İZSU), TOBB University of Economics and Technology and TÜBİTAK Marmara Research Center (MAM), won the technology, digitalization and innovation special award.

The project aims to establish unmanned hydroelectric power plants with status assessment systems in İzmir's urban water supply network. In this way, the hydraulic potential that is not used in water transmission lines will be transformed into green energy.

CSIR-Ghana organises Healthy Food Africa Workshop

The Council for Scientific and Industrial Research (CSIR), Ghana, hosted a three-day stakeholder consortium in Accra to discuss ways of improving nutrition under the Healthy Food Africa (HFA) project.

HFA is an EU Horizon 2020 collaborative research and development actions project which is intended to strengthen the diversity, sustainability and connectivity of food systems to provide more sustainable ways of producing food and boosting efficiency.

Two institutes of the CSIR, the Water Research Institute and Food Research Institute, are working on the Accra food system laboratory to add to the food value chain.

The training was aimed to educate farmers on safety and health concerns in food production and processing.



China Honors Prof. Dr. M. Iqbal Choudhary with China Friendship Award

The Director International Center for Chemical and Biological Sciences (ICCBS), Prof. Dr. M. Iqbal Choudhary, has been honored by the government of China with the Chinese Government's Friendship Award.

The award was presented by Ambassador of the People's Republic of China in Pakistan, Mr. Nong Rong in a special ceremony held at the Chinese Embassy.

The Chinese Government's Friendship Award is the People's Republic of China's highest award for "foreign experts who have made outstanding contributions to the country's economic and social progress".

Prof. Choudhary is also the recipient of prestigious awards by Government of Pakistan; Hilal-e-Imtiaz, Sitara-e-Imtiaz, and Tamgha-e-Imtiaz.

He has also been honored by the President of Iran with Khwarizmi International Award, President of Azerbaijan, with ECO Award in Education and the Prime Minister of Pakistan with COMSTECH Award in Chemistry.

ICENS-Jamaica Research to Help Eradicate Mosquitoes

Dr. Charles Grant, Director General ICENS, was among several officials in the science and technology sector who guided journalists and tertiary students on an open day and media tour of ICENS at the University of the West Indies, Mona on Tuesday.

Research scientist of International Centre for Environmental and Nuclear Sciences (ICENS), Johann Antoine, is working on ways to help reduce diseases, and improve the agricultural and medical industry in Jamaica. In his work, gamma irradiation technology — a tool used for sterilisation, radiotherapy, and nuclear energy — will be used to make insects sterile, such as mosquitos, to lower their population. This could be helpful in managing many mosquito borne diseases that are rampant in Africa.

This multi-purpose tool that scientists of ICENS are developing could also be used to sterilise skin grafts for burn victims and crop mutation.

BCSIR-Bangladesh Congress held in Dhaka

From 1st to 3rd December 2022, Bangladesh Council of Scientific and

Industrial Research (BCSIR) held its International Science Conference 2022 with the participation of scientists and researchers from 11 countries, including Canada, Australia, South Korea, Japan, China, Thailand, Malaysia, Oman and India.

Bangladesh's Minister for Science and Technology, Architect Yeafesh Osman presided over inaugural ceremony that

IROST, Iran, Invites Articles on Hydrogen and Fuel Cell

The Iranian Journal of Hydrogen and Fuel cell (IJHFC) calls for research papers under the following scope of work:

- Production and purification and application of H₂
- H₂ reformers and Catalyst
- Fuel cells and their applications
- H₂ Storage
- Process modeling and stimulations
- Safety in H₂ and fuel cell technology
- Related Research works on H₂ and fuel cells

The open access Journal, published under the patronage of The Iranian Research Organization for Science and Technology (IROST) is indexed in ISC, Chemical Abstract Services and DOAJ.

For details: The Iranian Research Organization for Science and Technology (IROST). **Email:** ijhfc@irost.ir

was attended by a number of prominent national and international figures. The event featured 360 topic-based presentations and 203 poster presentations presented in different venues of the three-day conference.

Sixty keynote papers and 60 invited lectures were also a part of the event.

The event's closing ceremony was chaired by Bangladesh's Minister for Industries, Nurul Majid Mahmud

Humayun. In his speech on the occasion, Chairman BCSIR, Md Aftab Ali Shaikh urged scientists to adapt to the new technology in the light of the Delta Plan of 2100.

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competence of developing countries in emerging sciences and technologies.

Visit to CUI, Islamabad Campus

Ambassador Dr. Mohammad Nafees Zakaria, Executive Director COMSATS, visited COMSATS University Islamabad (CUI) on December 19, 2022. It was his first visit since he assumed his responsibility as COMSATS' head. Dr. Zakaria is also Pro-Chancellor II of the CUI.

Rector CUI, Prof. Dr. Muhammad T. Afzal, welcomed the Executive Director and gave him a tour of the campus' different departments and facilities. The tour was followed by a formal briefing session attended by the Rector, Deans of Faculties and Principal Officers of the University.

A detailed presentation about CUI was given by the University Registrar who highlighted its performance with pertinent facts, figures, recent achievements. According to Times Higher Education, CUI is ranked number six in Pakistan and one of 601-800 in World Best University Rankings 2023. CUI is offering generous number of scholarships (100 Scholarships) for the nationals of the COMSATS' member countries.

Dr. Zakaria highlighted the need to align the University's nine research centers with Pakistan's economic as well as industrial needs. In his opinion, the Centers may advise the Government of Pakistan on different issues as think tank

for the relevant policies and initiative. Dr. Zakaria assured COMSATS' full support to CUI for promoting University's ambitious development plans over the coming years.

COMSATS Facilitates Consultations on Tele-health

COMSATS facilitated a virtual meeting between Dr. Orkun Hasekioğlu (Advisor at the Scientific and Technological Research Council of Turkey – TÜBİTAK) and Dr. Sohail Chughtai (Orthopedic Surgeon & Fellow in Clinical Telemedicine, Islamabad). The meeting, held on 21st December 2022, was chaired by Ambassador Dr. M. Nafees Zakaria, Executive Director COMSATS, and had the participation of Dr. Azeema Fareed, Additional Director (Health); and Mr. Irfan Hayee, Additional Director (Programmes) from COMSATS Secretariat. Dr. Orkun's colleague, Dr.

Omer, a medical specialist and General Surgeon, also attended the meeting. Dr. Chughtai briefed about the software developed by his company and the various services offered by it, including telemedicine, online ward rounds and training. He also informed that his company, housed in London, is also operating in Dubai-UAE and Karachi-Pakistan.

Further, it was learnt during the meeting that Dr. Hasekioğlu and Dr. Omer are in the process of establishing a network of hospitals in Doha-Qatar and Istanbul-Turkey. Dr. Omer remarked that there is a strong need for AI-based solutions for challenges relating to hospital administration, and medical record keeping.

Some areas of collaboration suggested by Dr. Orkun included: development of a software platform for telemedicine; emulation of telehealth services in other countries; relevant Artificial Intelligence; and medical training of doctors.



DEVELOPMENT AND S&T NEWS FROM MEMBER STATES AND BEYOND

Egypt Inks Accord with Zambia in Information Technology

The Egyptian Ministry of Telecommunications and Information Technology has signed a Memorandum of Understanding (MoU) with the Zambian Ministry of Technology and Science for cooperation in several telecommunications and information technology fields (Zawya; 13th December 2022).

Under the MoU, Egypt and Zambia will cooperate in the fields of digital transformation, postal services, building of institutional competencies, skill development, artificial intelligence, online education, digital inclusion, and international infrastructure. The Egyptian government will support Zambia's digital transformation efforts through the facilitation of partnering with multinational and local companies.

Egypt Partners with British Petroleum for Renewable Hydrogen Production

The Government of Egypt has entered into an Agreement with

British Petroleum (BP) with the aim of establishing a large-scale renewable hydrogen production facility in the North African country. Egypt has world-class renewable energy resources, and we look forward to working with the government to explore how we can support its ambitious low-carbon strategy", BP Executive Vice President of Gas and Low Carbon Energy, Anja-Isabel Dotzenrath, said in the statement (Middle East Monitor; 12th December 2022).

The Agreement was jointly signed by BP, Egypt's New and Renewable Energy Authority, the Egyptian Electricity Transmission Company, the General Authority for Suez Canal Economic Zone and the Sovereign Fund of Egypt for Investment and Development (TSFE).

Ghana's Efforts to Reduce GHGs Emissions

Ghana has obtained \$486.2 million as the first payment from carbon sale. This is as a result of a pilot project that was started in 2010 to store carbon in some selected forest reserves in the country as one of the potential ways to mitigate

climate change (AllAfrica.com; 14th December 2022).

Ghana, with one of the highest deforestation rates in Africa, became the third country to sign a landmark agreement with the World Bank that rewards community efforts to reduce carbon emissions from deforestation and forest degradation.

Tunisian Institutes Partner with JICA-Japan to Hold Trainings for Medical Engineers

On 14th December 2022, the Japan International Cooperation Agency (JICA), the Ministry of Higher Education and Scientific Research, the Higher Institute of Medical Technology of Tunis (ISTMT), the Université de Tunis El Manar (UTM) and the City of Sciences of Tunis (CST) signed an agreement, within the framework of triangular cooperation, to conduct a three-year training programme for French-speaking African countries (African Manager; 16th December 2022).

The programme aims to organize three training sessions from 2023 to



2025 with one session held per year. The first will take place in June 2023 at ISTMT and will bring together 20 participants from the target countries. This training has been designed to strengthen the knowledge and practical skills of high-level scientific trainers in the maintenance and quality control of medical equipment in African countries. These trainers will disseminate the acquired expertise to future medical technicians and engineers and to their peers.

Türkiye becomes the Term President of EUREKA

Türkiye's candidacy for EUREKA July 2023 – June 2024 Term Presidency was unanimously approved at the High Level Group Meeting held in Belgium, with the support of all members (RailyNews; 2nd December 2022).

Türkiye's term presidency of EUREKA will be carried out under the coordination of TÜBİTAK. In this context, in November 2023, March 2024 and June 2024, three big meetings will be hosted by TÜBİTAK and the Global Innovation Summit will be held with the participation of companies from EUREKA member countries. TÜBİTAK, which will be the chairman of the 47-member network and the chairman of the EUREKA Association, will take on important responsibilities under this task.

Egypt to Build Desalination Plants

Egypt, which recently hosted the COP27 UN climate talks and is trying to boost lagging investment in renewables, also aims to start production at a series of proposed green hydrogen projects in 2025-2026 (Middle East Monitor; 2nd December 2022). Egypt plans to award deals next year to build 21 water desalination plants in the first \$3 billion phase of a programme that

will draw on cheap renewable energy. The desalination programme aims to generate 3.3 million cubic meters of water daily in the first phase and eventually reach generation of 8.8 million cubic meters daily at a cost of \$8 billion.

At the climate talks in Sharm El-Sheikh in November 2022, nine out of 15 MoUs for green hydrogen projects concentrated in the Suez Canal Economic Zone (SCZONE) that would produce millions of tonnes of hydrogen and ammonia. More MoUs were planned, with cheap renewable costs and the scale of the potential fuel export market towards Europe making Egypt competitive.

Egypt Seals Deal in Wind and Solar Power

The Egyptian government has finalized agreements with Emirati firm AMEA Power to build a solar park and a wind farm with a combined capacity of more than a gigawatt (GW) in a \$1.1 billion deal (Reuters; 30th November 2022). The deal provides for AMEA to build a 560 megawatt (MW) solar plant in Southern Egypt and a 505MW wind farm on the Red Sea coast, and is supported with debt and equity financing from the International Finance Corporation (IFC) and several development and

commercial banks.

Power from the solar park and the wind farm will be priced at two U.S. cents per kilowatt hour, and three U.S. cents per kilowatt hour respectively, the lowest rates in Africa and among the lowest globally. Construction of both projects is due in December 2022.

China and Pakistan Join Hands for S&T Cooperation

In a landmark initiative to boost bilateral cooperation in science and technology, the Chinese Zhongguancun Belt and Road Industrial Promotion Association (ZBRA) and Pakistan's Special Technology Zones Authority (STZA) have jointly launched 'China-Pakistan Science & Technology Cooperation Centre' in Beijing, China (Global Village Space; 30th November 2022).

The center will focus on cooperation in fields of artificial intelligence (AI), internet of things (IoT), big data, cloud computing, robotics, fintech, biotechnology, and blockchain. It will also serve as a platform for Chinese Technology Companies to conduct & relocate their business in Special Technology Zones (STZs) of Pakistan and foster a cooperation base for developing production capacity.



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

Students from COMSATS' Member States are welcome to benefit from the following offers from COMSATS' Centres of Excellence:

- Hundred (100) scholarships for students/researchers for postgraduate studies at all campuses of COMSATS University Islamabad (CUI), Pakistan.
- Five (05) postdoctoral fellowships at the International Center for Chemical and Biological Science (ICCBS), Pakistan.
- Five (05) short-term postdoctoral fellowships at the National Research Centre (NRC), Egypt.
- Two (02) PhD scholarships at the Al-Farabi Kazakh National University (KazNU), Kazakhstan.
- Postgraduate scholarships and postdoctoral fellowships at International Centre for Climate and Environment Sciences (ICCES) under PIFI Programme.
- Long-term (1-2 years) and short-term (less than 6 months) fellowships for foreign scholars for collaborative research at Tianjin Institute of Industrial Biotechnology (TIB), Chinese Academy of Sciences.

For further details on the scholarships, please visit www.comsats.org or write to farhan@comsats.org.

ANSO-CAS-TWAS/UNESCO PhD Scholarship

The World Academy of Sciences, Chinese Academy of Sciences, and The Alliance of International Science Organizations (ANSO) have announced PhD scholarships in 10 fields of hard and social sciences. Up to 40 students/scholars from developing countries can win sponsorship to study in China for doctoral degrees for up to 4 years under ANSO-CAS-TWAS/UNESCO PhD Scholarship for the year 2023.

For students with MSc degrees and up to 35 years of age, these scholarship covers tuition and application fee waiver, apart from a monthly stipend of 6,000 or 7,000 CNY for the aforementioned duration.

Students from developing countries can apply before the closing date of the call – 15 February 2023.

Details at: <https://twas.org/opportunity/anso-cas-twasunesco-phd-scholarship>

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