



COMSATS' delegation meets the Ambassador of China to Pakistan, H.E. Mr. Nong Rong, to discuss prospects of collaboration, including those under Belt and Road Initiative (page 2).

## Inside this Issue

- Highlights from COMSATS Secretariat 2
- Special Section: Lecture Series on South-South and Triangular Cooperation for Socio-economic Development in the South 8
- Some Activities of COMSATS' Centres of Excellence 14
- Article: COMSATS and ANSO Contributing to South-South Cooperation 17
- Development and S&T News from Member States and Beyond 19
- COMSATS' Brief and Announcements 20

**Patron:**  
Dr. S. M. Junaid Zaidi  
Executive Director COMSATS

**Editors:**  
Ms. Farhana Saleem  
Ms. Isra Mahmood

**Designing & Development:**  
Mr. Imran Chaudhry

## From the Executive Director's Desk

The year 2021 has come with some new hopes and some old challenges, many of which are associated with the now quite familiar COVID-19 pandemic. With the world population getting vaccination against the pandemic incrementally, the hopes towards normalcy are high.

However, the evolving strains as well as new waves prove to add to the socio-economic toll that the pandemic is taking on the well-being of the world population. All hope is not lost as nations power through this global menace. Strategies and policies are fast evolving to cope with it and Science, Technology and Innovation and related R&D are inevitably becoming the lynchpin of these. Key elements that have inevitably become key determinants of success towards achieving various goals and recovery from pandemic are: innovation in processes and new products; ICTs and its integration in all sectors and levels; partnerships/multilateralism and more effective cooperative mechanisms; and adoption of innovative and sustainable practices.

Among its usual and well-established engagements, COMSATS continued to make its efforts towards pandemic response that started soon after the outbreak of the pandemic in early 2020 and were covered in the year's Newsletter issues. A recent activity in this respect pertains to interactions with Government of Pakistan's Task Force on COVID-19 for possible emulation of tele-health facilities in Dera Ismail Khan and Federally Administered Tribal Areas (FATA) region (page 3).

Interactions with foreign missions aiding pursuit of COMSATS' objectives included meetings with Ambassador of China to Pakistan, H.E. Mr. Nong Rong, and H.E. Mr. Mohammed Motahar Alashabi, Ambassador of Yemen to Pakistan. These meetings with Their Excellencies helped garner their support and goodwill for the organization and its mission. Another useful interaction of the nature came in the form of an informative lecture on "2021: The International Year of Peace and Trust" delivered by H.E. Mr. Atadjan Movlamov, Ambassador of Turkmenistan to Pakistan and Dean of Diplomatic Corps in Pakistan. Accounts of these interactions are included in the pages of this issue.

A highlight of this issue is a Special Section on COMSATS' new initiative of launching lecture series to share knowledge and best practices to help deal with emerging socio-economic challenges through South – South and Triangular cooperation in science and technology. Informative lectures from eminent figures from TUBITAK-Turkey, SESRIC-Turkey, ANSO-China, and COMSTECH became a part of this series.

Lastly, through this issue that is the last of my current term as the Executive Director, I would like to express my special gratitude to the COMSATS' Focal Points, Centres and partner individuals and institutions for their support and cooperation during this time. I also sincerely thank my colleagues at COMSATS Secretariat for helping execute the organization's work during the term.

## HIGHLIGHTS FROM COMSATS SECRETARIAT

### Engagements with Diplomatic Missions

#### Meeting with Ambassador of Yemen to Pakistan

H.E. Mr. Mohammed Motahar Alashabi, Ambassador of Yemen to Pakistan, visited COMSATS Secretariat on 8th January 2021, and held a meeting with Executive Director COMSATS, Dr. S. M. Junaid Zaidi and senior colleagues of COMSATS.

During the brief meeting, the Honourable Ambassador handed over a letter to Dr. Zaidi from H.E. Prof. Dr. Hussein Basalamah, Minister of Higher Education and Scientific Research of Yemen, seeking COMSATS' support to establish a university of science and technology in Yemen. In his letter, the Minister also pledged to participate in the virtual meeting of COMSATS Consultative Committee expected to be held during 2021.

Possibilities of collaboration between Yemen and other Member States of COMSATS were also explored during the meeting, and the Ambassador assured his full support to facilitate the induction of a suitable R&D Centre or higher education institution of Yemen in COMSATS' Network of Centres of Excellence. Induction

of such an institute, it was noted, would facilitate various collaborative undertakings, including joint research and development projects, capacity-building activities, expert-exchange, and technology transfer arrangements.

#### Meeting with Ambassador of China to Pakistan

A four-member delegation of COMSATS, led by Dr. S.M. Junaid Zaidi, Executive Director COMSATS, paid a visit to the new Ambassador of China to Pakistan, H.E. Mr. Nong Rong, on 3rd February 2021. The meeting which was held at the Embassy of China in Islamabad was also attended by Mr. Jia Wei, First Secretary on Science and Technology; and Ms. Bao Zhong, Director Political and Press Section at the Embassy.

This introductory meeting with the Ambassador was aimed at briefing him about COMSATS' programmes and activities as well as to explore new avenues of strengthening cooperation with China through Ambassador's good office.

Felicitating H.E. Mr. Nong Rong on assuming charge of Ambassador of China to Pakistan, Dr. Zaidi apprised him of COMSATS – China collaboration. He stated that China has representation at all statutory bodies of COMSATS

through its Ministry of Science and Technology (MoST); and Centres of Excellence – the International Center for Climate and Environment Sciences (ICCES) and the Tianjin Institute of Industrial Biotechnology (TIB).

The Honourable Ambassador was also acquainted with COMSATS' programmes and recent collaboration with the Torch Hi-tech Industry Development Centre of the Chinese MoST, and the Chinese Alliance of International Science Organizations (ANSO).

While discussing the prospects of launching multilateral projects under the umbrella of Belt and Road Initiative, it was mentioned that COMSATS and Chinese MoST have also signed an agreement on 'Cooperation Initiative on Silk Road of Innovation' for ST&I cooperation for sustainable development. Further, it was hoped that Chinese government could play a catalytic role in institution building (research and academic institutions as well as S&T parks) in COMSATS' Member States as well as initiating programmes under the MoST and ANSO umbrella.

H.E. Mr. Rong thanked Dr. Zaidi for apprising him on the role COMSATS is playing for the promotion of Science and Technology and pledged full





support of his office for the realization of various matters discussed during the meeting.

## Interactions with Host Country, Pakistan

### Member of Government of Pakistan's Task Force on COVID-19, Commissioner Dera Ismail Khan, Director of Planning and Development, Khyber Pakhtunkhwa (KPK)

On special invitation from COMSATS, Prof. Dr. Ghazna Khalid, Member of Prime Minister's Task Force on COVID-19, Government of Pakistan; Mr. Yahya Akhunzada, Commissioner Dera Ismail Khan; and Dr. Zia Khattak, Director of Planning and Development, Khyber Pakhtunkhwa (KPK), visited COMSATS' flagship project in Pakistan, the COMSATS Internet Services (CIS), on 8th January 2021.

The visit was arranged with a view to demonstrate the telehealth facilities available at CIS Islamabad for possible replication of such services in far flung and mountainous areas of Pakistan. Present on the occasion were Executive Director COMSATS, Dr. S.M. Junaid Zaidi; Chief Operating Officer of CIS, Mr. Nasir Jamal Khan; along with senior officials of CIS.

A briefing on the launching of telehealth services by COMSATS was given to the esteemed guests by Mr. Jamal who mentioned that the Programme was initiated with the aim to provide affordable, efficient and accessible healthcare to remote communities of Pakistan. He briefed the visitors about the support extended by CIS to Peoples Primary Healthcare Initiative (PPHI) of Balochistan for instituting a telehealth set-up.

Mr. Jamal indicated that under an



agreement the Government of KPK has also replicated E-ilaj facility in KP using COMSATS Telehealth model. The other side was receptive of the briefing and expressed willingness for establishing telehealth facilities in Dera Ismail Khan and Federally Administered Tribal Areas (FATA) region.

Understanding during the meeting prevailed on having more cooperation to address dearth of medical staff and doctors in marginalized areas of Pakistan through judicious use of telehealth.

### Member of Government of Pakistan's Task Force on COVID-19

Dr. Khalid Saeed Khan, Member of

Government of Pakistan's Task Force on COVID-19, and Distinguished Investigator, University of Granada, Spain, visited COMSATS' flagship projects in Pakistan, COMSATS Telehealth Centre and COMSATS University Islamabad (CUI), on 26th January 2021.

During his visit to CTH, Dr. Khan was shown around the facilities and given a briefing on telehealth model of CTH. It was informed that besides provision of primary and secondary healthcare services, the Programme is also helping to build capacity of paramedical staff as well as to create awareness among general public.

Appreciative of CTH's operations, Dr.



Khan emphasized the need to integrate the findings of clinical research in telehealth services. He looked forward to having collaboration for research projects relating to maternal healthcare and the use of artificial intelligence in evidence synthesis.

Accompanied by Engr. Qaiser Nawab, Assistant Director (Programmes) COMSATS, Dr. Khan later visited CUI and held a meeting with the Rector, Prof. Dr. Muhammad Tabassam Afzal. During the meeting, Dr. Khan was apprised of various programme of CUI including the newly launched artificial intelligence programme. Various developments of the International Research Center of Biomedical Materials (IRCBM) of CUI were also shared with Dr. Khan.

Dr. Khan appreciated the programmes of CUI and suggested developing applications for recognition and prevention of domestic violence using voice capture with content and sentiment analysis using AI.

### **Additional Secretary (Special Initiatives), National Assembly of Pakistan**

On 17th February 2021, Mr. Syed Shamoan Hashmi, Additional Secretary (Special Initiatives), National Assembly

of Pakistan, visited COMSATS Secretariat along with Mr. Akhunzada Hussain Yousafzai, Focal Person on Speaker's Special Initiatives, to receive a briefing on COMSATS and explore areas for possible collaboration.

During the meeting, Dr. S. M. Junaid Zaidi, Executive Director COMSATS, briefed the distinguished guests about COMSATS' operations and programmes. Mr. Hashmi was receptive of Dr. Zaidi's presentation and appreciated the role COMSATS has been playing for the development of its Member States.

To further explore areas of cooperation, Mr. Shamoan informed that National Assembly of Pakistan operates through various Standing Committees that provide an oversight for governmental functions. In this connection, he proposed COMSATS could act as a think tank on S&T and related matters to support various Standing Committees. In particular, he sought support for National Assembly Standing Committees for Climate Change, Information Technology and Communication, Energy, and S&T.

It was also discussed and agreed that COMSATS having prowess in the field of data warehousing will support National Assembly in establishing a secure data

centre.

### **Managing Director of Khyber Pakhtunkhwa Information Technology Board (KPITB)**

On 20th February 2021, Dr. Sahibzada Ali Mahmud, Managing Director of Khyber Pakhtunkhwa Information Technology Board (KPITB) visited COMSATS Secretariat and held a brief meeting with Executive Director, Dr. S. M. Junaid Zaidi. Also present during the meeting were Mr. Nasir Jamal Khan, Chief Operating Officer (COO) of COMSATS Internet Services (CIS), and Engr. Qaiser Nawab, Assistant Director (Programmes) at COMSATS Secretariat.

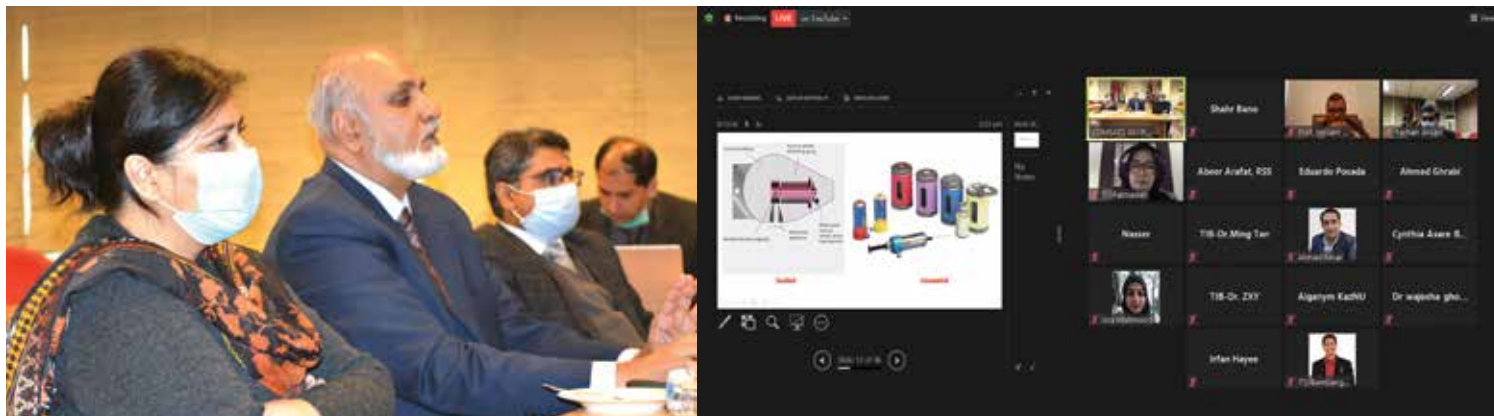
During the meeting, Dr. Mahmud was apprised of COMSATS Telehealth Programme and CIS as well as CIS' ongoing collaboration with KPITB. Appreciating COMSATS' programmes, Dr. Mahmud informed that KP is undergoing a digital transformation with rapidly expanding mobile and internet connections. This has the potential to significantly drive economic growth, improve employment opportunities, and enhance service delivery. Such a transformation is supported by four pillars of Digital KP strategy which are: Digital Access, Digital Governance, Digital Economy and Digital Skills.

### **Webinars and Talks**

#### **Lecture on World Cancer Day**

A lecture on "Applications of Radiations in Cancer Management" was organized by COMSATS on 2nd February 2021, to commemorate World Cancer Day. Held virtually, the lecture was delivered by Dr. Muhammad Sohaib, a nuclear medical specialist, currently serving as the Director of Nuclear Medicine & Oncology at Pakistan Atomic Energy Commission (PAEC).





Dr. Sohaib's lecture focused on the use of radiations for diagnosis, staging and treatment of cancer. He detailed the various techniques and types of radiations employed in cancer therapy while also sharing a brief history of nuclear medicine. The role being played by 18 hospitals of PAEC across Pakistan to help realize "No one fights alone" goal was also highlighted by Dr. Shoab.

The lecture was followed by Q&A session wherein Dr. Shoab responded to queries relating to the use of molybdenum for nuclear medicine purposes; resolution of PET scanning; as well as COVID-19 impact on cancer patients' care.

### Talk on 2021- International Year of Peace and Trust

On 19th February 2020, a talk on "2021:

The International Year of Peace and Trust" was arranged by COMSATS in collaboration with the Embassy of Turkmenistan in Islamabad. Delivered by H.E Mr. Atadjan Movlamov, Ambassador of Turkmenistan to Pakistan and Dean of Diplomatic Corps in Pakistan, the talk highlighted Turkmenistan's efforts for bringing peace and stability in the region.

During the talk, H.E. Movlamov stated that Turkmenistan moved a resolution at UN General Assembly in 2019 urging it to declare 2021 as the year of peace and trust. The resolution was unanimously adopted by UN General Assembly. Concurrently, in Turkmenistan, the year 2021 has been declared "Turkmenistan is the Motherland of Peace and Trust". The year aims to mobilize international efforts to promote peace and trust among nations on the basis of political

dialogue, mutual understanding and cooperation in order to build sustainable peace, solidarity and harmony. The Ambassador mentioned that UN General Assembly adopted the Resolution of Permanent Neutrality of Turkmenistan twice in 1995 and 2015. Such a policy has helped Turkmenistan and other Central Asian Republics to achieve progress and prosperity for their nations after independence from the USSR.

While sharing views on Turkmenistan's relations with its neighboring countries, the Ambassador stated that Turkmenistan attaches great importance to enhancing cooperation with Pakistan, in particular in energy sector. In the same vein, Turkmenistan supports international initiatives to rebuild Afghanistan, in particular through programs under the Regional Economic Cooperation Conference on Afghanistan and the construction of infrastructure projects like Turkmen-Afghan-Pak-India (TAPI) gas pipeline.

### Webinar on Modeling and Simulation on Climate Change and Environmental Pollution

COMSATS organized a webinar on "Modeling and Simulation on Climate Change and Environmental Pollution: Strengthening Resilience in the Global South", on 12th January 2021.







Co-organized by COMSATS Centre of Excellence in Nigeria – National Mathematical Centre (NMC) – and COMSATS Centre for Climate and Sustainability (CCCS), the webinar was moderated by Mr. Bilal Anwar, General Manager, Commonwealth Climate Finance Hub.

Welcoming the participants, Ambassador Shahid Kamal, Head of CCCS, considered climate change as one of the biggest challenges of all time and deemed mathematical modeling and simulation important for decision making relating to climate mitigation and adaptation within the framework of Paris Climate Agreement and 2030 Development Agenda. Speaking on the occasion, Dr. Stephen Onah, Director of NMC, Nigeria, opined that mathematical modeling is the most

efficient way to predict and mitigate adverse impacts of climate change.

During the technical proceedings, Dr. Daniel Tutu Benefoh, Deputy Director, Climate Change Unit, Environmental Protection Agency, Ghana, discussed the KUMASI emission and LEAP IBC model used for the prediction of climate change impacts, and interaction of air quality and climate change, respectively. He stated that black carbon which is the major contributor of air pollution leads to alteration in meteorological patterns.

Prof. Dr. Ghasem Azizi, Department of Physical Geography, University of Tehran, Iran, discussed water crises in the context of global warming. He opined that change in atmospheric composition leads to global warming which further alters weather patterns,

changes land cover, and causes imbalance in energy.

Prof. B. O. Oyelami, Head of Mathematical Modeling and Simulation Research Group, National Mathematical Centre (NMC), Nigeria, talked about the importance of modelling and simulation for climate change, atmospheric pollution, ground water management, oil spillage, flooding, glacial melts, and other climate change related phenomenon.

Dr. Zia Ur Rehman Hashmi, Head of Water Research Section, Global Change Impact Studies Centre, Ministry of Climate Change, Pakistan, discussed Pakistan's Climate Change Policy that is centered upon adaptations, mitigations, transboundary water management, glaciers as protected areas, and enhancing R&D activities. He also shared Pakistan Safety Agenda which focuses on the safety and well-being of people, sustainable economic growth, and fulfilling international commitments.

Prof. Hüseyin Toros, Professor of Climate Change, Air Quality and Modeling, Istanbul Technical University (ITÜ), Turkey, discussed climate change situation of Turkey. He opined that atmospheric pollutants alter the atmospheric patterns, therefore, air pollution is one of the primary drivers of climate change.

The webinar concluded with the closing remarks of Dr. M. Sharif, Advisor Science





and Technology Sector, Islamic World Educational, Scientific and Cultural Organization (ICESCO), Morocco, who underscored the importance of integrating mathematical modeling and simulations in research for effective policy-making.

### **Webinar on Sustainable Management of Forests and Challenge of Deforestation**

COMSATS Centre for Climate and Sustainability (CCCS) in collaboration with the Council for Scientific and Industrial Research (CSIR) of Ghana, Forestry Research Institute (FORIG) of Ghana, and Forestry Research Network of Sub-Saharan Africa (FORNESSA) co-organized the webinar on 18th February 2021.

The event was moderated by Dr. Ernest Gordon Foli, Principal Research Scientist at FORIGs – CSIR, and member of UN Secretary General's Advisory Group on the Global Sustainable Development Report (2019), and included following speakers: Dr. Tonjock Rosemary Kinge, Associate Professor of Mycology, Department of Biological Sciences, University of Bamenda, Cameroon; Mr. Mauricio Andrés Valencia Camelo,

Environmental Engineer, International Centre for Physics (CIF), Colombia; Mr. Jacob Amoako, Measurement, Reporting and GIS officer at Climate Change Directorate of the Forestry Commission of Ghana; Prof. Dr. Maher J. Tadros, Department of Natural Resources and Environment, Jordan University of Science & Technology, Jordan; Dr. Steve Makungwa, Forest Measurements, Modeling and Climate Change Expert at University of Agriculture and Natural Resources, Malawi; Mr. Shiva Pariya, Forest Officer, Ministry of Industry, Tourism, Forests and Environment, Nepal; Dr. Samuel Olalekan Olajuyigbe, Senior Lecturer, Department of Forest Production and Products, University of Ibadan, Nigeria; and Mr. Ashiq Ahmad Khan, Scientific Representative of EvK2CNR Association, Pakistan.

In his opening remarks, Ambassador Shahid Kamal, Founder of CCCS, highlighted the importance of forests and discussed the environmental, economic and social aspects of this ecosystem. Prof. Daniel Ofori, Director of FORIG/CSIR, delivered his keynote address in which he highlighted the challenges of deforestation and mitigative strategies to cope with this

challenge.

Significance of forests from cultural, economic, social and environmental perspectives was highlighted.

Deforestation was considered a key contributor towards water scarcity and creating imbalances in ecosystems. Irrational urban development was considered a key challenge threatening forests and related ecosystems, due to loss of biodiversity and overuse of wood for timber and fuel.

The event recommendations included:

- Alternate and clean fuel is best approach to reducing demand of fuel wood coming from forests;
- Mainstreaming of new technologies and environment-friendly approaches is necessary to reduce dependence on fuel wood;
- Formulation and implementation of suitable government level policies is necessary for forest preservation and regeneration; and
- Urban forestry could be a good approach for clean environment and fresh air, while agro forestry could be a useful adaptive approach to address food insecurity.

## SPECIAL SECTION: LECTURE SERIES ON SOUTH-SOUTH AND TRIANGULAR COOPERATION FOR SOCIO-ECONOMIC DEVELOPMENT IN THE SOUTH

COMSATS initiated an online lecture series on South – South and Triangular Cooperation for socio-economic development in the South, in which eminent experts from member countries and international partner organizations are sharing their insights on how to effectively address the socio-economic needs of the developing countries through South – South and Triangular cooperation in science and technology.

During the reporting period, seven sessions covering nine lectures were held wherein experiences and best practices, knowledge and insights as well as recommendations were shared on themes that broadly related to S&T cooperation, food security, digitalization, fourth industrial revolution, pandemic preparedness, pandemic associated advancements in S&T, and SDGs.

These sessions had the participation of officials from COMSATS' Focal Ministries, Centre of Excellence and COMSATS Secretariat. Following lectures were covered during these sessions:

### Co-Creating and Succeeding Together with South-South and Triangular Collaboration (15th December 2020)

The maiden lecture of the series was delivered by the President of the Scientific and Technological Research Council of Turkey (TÜBİTAK), Prof. Dr. Hasan Mandal. During his lecture, Prof. Mandal highlighted different approaches of co-creation while exemplifying TÜBİTAK's policy tools and methods designed for achieving impact oriented, high value societal and economic benefits, including evidence-based solutions during the COVID-19 pandemic.



It was informed that in the wake of the COVID-19 pandemic, "COVID-19 Turkey Platform" was launched to help accelerate R&D and innovative processes based on co-creating as well as integrating new opportunities based on emerging technologies. Prof. Mandal informed that 17 projects of vaccine and drug development have been initiated and four of the vaccine candidates after completing animal studies have entered Phase-I clinical trials. Further, TÜBİTAK's success relating to development of innovative COVID-19 diagnostic kits and systems was also shared.

Prof. Mandal further informed that TÜBİTAK supports co-creation based knowledge by bringing in universities, industries, research institutions, and companies. In this direction, the Council has also launched Industrial Doctorate Program where 1,162 students from 80 universities and 224 industrial firms are trained in areas of industrial significance. TÜBİTAK is also providing an attractive arena for frontier research with a new national frontier research scheme.

It was noted that TÜBİTAK has international linkages with 62 countries, including many Member States of

COMSATS. Additionally, the Council is cooperating with 100 institutions through various multilateral unions and platforms. The Council is also striving to achieve Sustainable Development Goals 3, 4, 8, and 12 and has 402 international cooperative sustainable projects underway.

### South – South Cooperation for Socio-economic Development of the South: The Experience of SESRIC (5th January 2021)

In his lecture entitled "South – South Cooperation for Socio-economic Development of the South: The Experience of SESRIC", H. E. Nebil DABUR, Director General, Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC), Turkey, presented historical perspective of South-South Cooperation (SSC) highlighting the principles, components and modalities of such cooperation framework. He considered that capacity development, horizontal partnerships, diversity of choices, cost-effectiveness, demand driven character and adaptability key features of SESRIC's interventions relating to SSC.





He considered sharing of experiences and good practices, capacity-building, and strengthening of networks and partnerships imperative for sustainable South-South Cooperation. He was of the view that developing countries need to enhance their capacities to find solutions to their development problems through sharing of knowledge and resources.

Dr. Dabur shed light on the mandate and activities of SESRIC and shared with the participants his Organization's report titled "South-South in action: transforming potential into shared prosperity". It was also informed that being the subsidiary organ of OIC, SESRIC is engaged in research, training and statistical analysis, short-term statistical training courses, technical missions, workshops, and online courses in the areas pertaining to South-South Cooperation.

SESRIC has also been bringing out implementation surveys, strategies and cooperative frameworks and sectorial reports. Sharing his organization's future plans, Dr. Dabur informed that SESRIC is planning to hold capacity-building activities in the fields of tourism, diplomacy, environment, poverty

alleviation, agriculture and health sector, among others.

### **South – South Cooperation for Socio-economic Development of the South: The Experience of the NRC, and Short and Long-term Plans (19th January 2021)**

During his talk, Prof. Mohamed Hashem, President of National Research Centre (NRC), Egypt, noted

the collaborations of his Centre with other Centres of Excellence of COMSATS during the past few years. These included: establishment of the Centre of Excellence for Research & Applied Sciences on Climate Change & Sustainable Development in collaboration with the International Center for Climate and Environment Sciences (ICES) of China; as well as agreements with ICES, China; COMSATS University Islamabad (CUI), Pakistan; and Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh. It was also informed that NRC is actively collaborating with the COMSATS Centre for Climate and Sustainability (CCCS).

Prof. Hashem also shed light on some joint initiatives of Egypt in the African region. He mentioned that Egypt launched 'H.E President Al-Sisi's Initiative' to treat one million hepatitis patients in 18 African countries. Furthermore, the Egyptian Agency of Partnership for Development (EAPD) organized capacity-building programs in fields of diplomacy, health, agriculture, education, judiciary, information technology, and food security that benefitted 7,000 participants from 24 countries.





### Socio-economic Needs in the Diginomic Environment – Impact of the Fourth Industrial Revolution (19th January 2021)

The subject lecture was delivered by Mr. Bradley Emerson, CEO of Business Athletes, Sri Lanka. In his lecture, Mr. Emerson stated that COVID-19 pandemic has especially impacted the economic growth of the East Asia and Pacific region.

Citing World Bank's economic growth statistics in this regard, he opined that this situation has also created an opportunity for diginomic environment (digital economics). Mr. Emerson also deemed increased conflict and unemployment rates as retarding factors for fourth industrial revolution.

Further in his presentation, Mr. Emerson highlighted Prosperity, Connectivity and Leadership as key features of the emerging geopolitical landscape. He mentioned that such a landscape has increased the inadequacy of existing international institutions to deal with the global issues. In his opinion, rigid power structures and institutions hamper economic development, and absence of major structural and financial adjustments in developed countries slows GDP.

Mr. Emerson was of the view that

proactive and integrated national and international policy development is vital to achieve sustainable growth.

### Pandemic-Associated Advances in Research and Development: Science and Technology at Work in OIC Region (26th January 2021)

The talk delivered by Prof. Dr. M. Iqbal Choudhary, Director of International Center for Chemical and Biological Sciences (ICCBS), Pakistan, and the Organization of Islamic Cooperation Standing Committee on Scientific and Technological Cooperation (COMSTech), Islamabad, highlighted COVID-19 response of OIC Member States with special reference to Pakistan.

Discussing the coronavirus situation in the OIC region since the onset of the disease, Prof. Choudhary identified some key challenges faced by the Muslim world during this interval. He was of the view that the pandemic has reinforced the need of having good governance system, social justice, investment in health and education, and building indigenous capacity in S&T.

While sharing S&T-related interventions of OIC countries, Prof. Choudhary stated that OIC countries achieved self-reliance in the production of PPEs, facial masks, diagnostic kits, and other biomedical and bioanalytical

equipment, as well as participated in the global clinical trials for COVID-19 vaccines.

Further, to encourage R&D as well as to support various research initiatives, Islamic Solidarity Fund of Islamic Development Bank (IsDB), Islamic World Educational, Scientific and Cultural Organization (ICESCO), and other institutions in OIC countries announced R&D support programmes. The Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC) and COMSTech also created COVID-19 R&D observatories.

Prof. Choudhary also recalled some of COMSTech's initiatives and detailed the COVID-19 response of Pakistan. In this regard, he informed that Pakistan established a 'National Task Force on COVID-19' in March 2020 to help support science-backed solutions and response to the pandemic. The initiative 'Attack Coronavirus and Offer a Cure' was also launched by Pakistan to support drug discovery against COVID-19 and thereafter clinical trials were initiated in collaboration with other countries in OIC Member States.

Pakistan also started manufacturing and export of ventilator for prototype testing. It was also informed that ICCBS, Pakistan, is in the process of determining the structures of SARS-CoV-2 strains found in the country.



In connection with this, ICCBS is conducting genomic surveillance to sequence the complete genome of the virus. Other research underway includes the study of mutations of SARS-CoV-2 virus; 100 SARS-CoV-II genome project; and vertical transmission studies, among others.

Some recommendations recorded by Prof. Choudhary for post COVID-19 world included:

- Healthcare sector should be strengthened with the 'Emergence of Global Health Security Regime';
- SDGs should be rearranged with health and nutrition as the 'Critical Goals';
- R&D in healthcare should be prioritized for preparedness against the future pandemics that will also derive future scientific endeavors.

### Towards SDGs-Oriented Amalgamated Research Plans Among COMSATS Centres of Excellence (2nd February 2021)

Delivered by Prof. Dr. Hosam El-Sayed, Assistant Vice President for Research, National Research Centre (NRC), Egypt, the main idea of the talk was creation of clusters of Centres of Excellence (CoEs) based on mutual interest and expertise to help meet their institutional and Network goals, national needs as well as meet the targets of 2030 Global Agenda.

To improve joint work with the Network, Prof. El-Sayed shared a plan as to how the Network members could collaborate with NRC. He proposed some areas in which Centres may initiate joint research activities, such as: chronic and endemic diseases; pharmacology; life sciences; chemical industries; engineering industries; ICTs; water and environment; renewable energy; agriculture and food sciences; and frontier sciences.



In the same vein, he put forth the idea of formulating groups of CoEs for the achievement of various Sustainable Development Goals (SDGs), in particular SDG1, 2, 3, 4, 6, 7, 9, 12.

Prof. Hosam noted Egyptian Science, Technology, and Innovation Funding Authority (STIFA), Egyptian Agency of Partnership for Development (EAPD), Islamic Development Bank (IsDB), and Islamic World Educational, Scientific and Cultural Organization (ICESCO) as potential funding partners for various R&D activities. Launched in 2014, EAPD aims at putting Egypt's comparative advantages and technical expertise to use for benefit of the South, and in particular Africa and the countries of the Commonwealth of Independent States.

### Food Security during the Pandemic: Importance of South-South Regional Cooperation (9th February 2021)

Mr. Ali Salman, Founder and Executive Director of the Policy Research Institute of Market Economy (PRIME), Pakistan, gave the talk inspired by a paper on "Food security in Pakistan during the pandemic year (Democracy Reporting International (DRI), Pakistan, December

2020). Mr. Salman highlighted various dynamics of food security, food inflation, as well as fiscal, administrative and policy measures taken by federal and provincial governments in Pakistan during the pandemic.

Discussing the implications of COVID-19 in various sectors in Pakistan, Mr. Salman cited UNDP's report and highlighted useful predictions and projections it included. He also discussed disruptions in food supply chain in Pakistan.

Some recent challenges toward agriculture and food security recalled by him in Pakistan included: damage to tomato crops and relevant economic toll due to reduced imports from Iran and locust attacks resulting in serious crop losses.







Mr. Salman suggested policy measures to remedy the adverse effects of these losses. He was of the opinion that the federal government should identify population pockets suffering from severe shortage of food, whereas the provincial governments should re-direct budgets available within the provincial departments for provision of food packages comprising of essential food items. Moreover, the government, Civil Society Organisations (CSOs) and the private sectors should join hands to ensure sustained supply of food packages in affected areas.

### Science, Technology and Innovation to Address COVID-19 in Palestine (9th February 2021)

The lecture was delivered by Engr. Samer Hussein, Director General for Technical Education, Ministry of Higher Education and Scientific Research (MOHESR), Palestine. During his talk, Mr. Hussein opined that distance education and learning have become an indispensable tool during the pandemic and accordingly, the government of Palestine adopted measures for technical strengthening of the education sector. He shared some of

these measures: development of a crisis cell for technical facilitation of teachers; capacity-building and skill development in digital technologies, web applications and platforms; and creation of informational videos for awareness and education of staff and students.

Furthermore, Engr. Samer also shared information on NAACE Self Review Framework (SRF) that helps academic and training institutions understand, evaluate, monitor, and plan regarding technology strategy.

It was informed that Al-Quds University also produced medical artificial respirator in collaboration

with specialists from medical fields, and computer sciences. The device is based on an innovative design, having 360-degree mechanical steering system, a water spray system, as well as pneumatic propulsion system. It has two tanks having 300 liters' capacity. Moreover, it was informed that an alarm device, a Smart Medal for wireless charging of smartphones, as well as a hand sanitizer package were also designed by Palestinian researchers.

### Insight on South-South and Triangular Cooperation in S&T (23rd February 2021)

The Executive Director of the Chinese



Alliance of International Science Organizations (ANSO), Prof. Dr. Jinghua Cao, in his presentation gave an overview of ANSO's operations stating that this 56-member strong Alliance is advocating UN Sustainable Development Goals (SDGs) and providing science-based consultancy for policy making. Prof. Cao also highlighted ANSO's efforts for combating coronavirus, some of which included:

- Support for a number of international cooperation projects on COVID-19 and anti-COVID-19 drug research;
- Facilitation for the Phase-III clinical trial of Recombinant Protein Vaccine;
- Holding of 16 webinars to support collaboration for vaccine development that had the participation of scientists, pharmacists and government officials from Chile, Brazil, Ghana, Kazakhstan, the Philippines, Pakistan, South Africa, Senegal, Sri Lanka, Turkey, and Uzbekistan.
- Information sharing on COVID-19 with ANSO members and partners;

and

- Publication of special issues on COVID-19 and setting-up of online column on website.

Detailing on South-South and Triangular cooperation activities of China, Prof. Cao informed that China created 'South-South Cooperation Assistance Fund' worth US\$3.1 billion to support other developing countries in their efforts towards finding innovative solutions for challenges relating to climate change, biodiversity, health biosafety, etc.

It was learned that China also supported the establishment of Sino-Africa Joint Research Center (SAJOREC) in Kenya to promote research on Modern Agricultural Technology Integration and Demonstration as well as to support food security efforts in African countries. In the same vein, CSL Joint Research Center was established at the University of Peradeniya in Sri Lanka with the patronage of China.

The establishment of this Centre, it was informed, has been materialized as a result of S&T cooperation between

China and Sri Lanka. The Centre is aimed at conducting water quality analysis, exploring water supply technology, and developing skills of personnel working in this domain.

Two other research centres established with the patronage of Chinese Academy of Sciences (CAS) are Southeast Asia Biodiversity Research Institute (SEABRI) in Myanmar, and China-Pakistan Joint Research Centre on Earth Sciences (CPJRC) in Pakistan.

Some other projects and initiatives highlighted by Prof. Cao included: ANSO Association for Rice & Wheat Variety Technology Innovation and Transfer (ANSO-RWIT); Alliance of Poverty Reduction and Development (APRD); R&D of Artemisinin use in Africa; Thailand-China Joint Laboratory on Microbial Biotechnology; Ethiopia Green Enzymatic Bone Gelatin Manufacture Demonstration Project; application of non-contact vital-signs monitoring technology; and preparation and industrialization of low-cost thermal insulating coatings for tropical industrial plant in Philippines.



## SOME ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

### ICCBS-Pakistan Collaborates to Set-Up Innovation, Research, and Education Network

L.E.J. National Science Information Center (LEJNSIC) of the International Center for Chemical and Biological Sciences (ICCBS), Pakistan, is collaborating with the Government of Sindh to establish Sindh Innovation, Research, and Education Network (SIREN). The initiative is aimed at providing distant education and improve the quality of education and research in the province of Sindh.

SIREN would use a modern ICT platform for enhancing research capacity, pedagogical skills, and quality of content, and promote research collaboration between institutions of higher learning in Sindh. The Network would link all universities of Sindh and their campuses, and later colleges and schools through the most modern, yet cost-effective, technologies that will enable everyone to be engaged in learning, teaching, and research activities through the focal center LEJNSIC.

### Princess Sumaya of RSS-Jordan Patronizes the Hult Prize

Under the Patronage of HRH Princess Sumaya bint El Hassan, President of Jordan's Royal Scientific Society (RSS), and Chairman of the Board of



Trustees of Princess Sumaya University for Technology (PSUT), virtual closing ceremony of the Hult Prize – PSUT was held on 14th January 2021. During the ceremony, three teams qualified to represent PSUT at the global level.

The Hult Prize is organized by the Hult International Business School. It is one of the five most important awards for young people at the global level and aims to launch new social institutions capable of making fundamental changes in the world. A prize of one million US dollars is awarded to the best team globally.

### RSS-Jordan Collaborates with UN-Habitat to Implement COVID-19 Response Project

RSS, Jordan, and UN-Habitat have signed an agreement for a joint research project entitled "COVID-19 in the Wastewater Cycle: Survival, Risk and Surveillance in Jordan" initiated by the UN agency's Global Water Operators' Partnerships Alliance Programme (GWOPA).

The Water and Environment Centre and Bio-Safety and Bio-Security Centre at the RSS, will be in charge of implementing the project, which seeks to complement the efforts of RSS in wastewater monitoring and assessment across Jordan. The joint project will be implemented over 6 months to address the presence and fate of COVID-19 in the wastewater cycle from the source points at King Abdullah University Hospital in Irbid to the wastewater treatment plant.

The concentration of COVID-19 in wastewater samples provides an early alert to address potential cases, and the detection of the virus in sewage has been employed as a complementary method to clinical testing and indicator of virus spread in communities.

### RSS-Jordan Receives ICT Standard Award

Marking a first for the Middle East and GCC region, RSS, Jordan, was honored with the most prestigious award given by the International Federation of Global Information and Communication Technology (IFGICT), designating it as a 'Green Business'. This certification recognizes the achievements of key organisations in raising their ICT infrastructures to world-leading standards.

The Green Business Certificate of quality was awarded based on a comprehensive ICT audit that was carried out over the course of almost a year, during which IFGICT representative in Jordan worked closely with RSS staff.

Implementing the IFGICT ICT standards helps committed organizations to achieve coherent ICT quality management to enhance organizational development and greatly improve the quality of services and products provided for stakeholders and customers. It also helps to maximize employee satisfaction and skill-development.

### RSS-Jordan Trains Engineers on its ADAPT System

RSS, Jordan, in cooperation with the Jordan Valley Authority, conducted four training sessions aimed at explaining the mechanism of work of the "ADAPT" system. Designed to be an integrated electronic knowledge system, ADAPT consist of a website platform, a database for agricultural experts and a mobile application to be used as an early warning system for extreme weather events.

The system was developed by RSS in cooperation with the Jordanian Ministry



of Environment (MoE) as part of the activities of the program of increasing the resilience of poor and vulnerable communities to the effects of climate change in Jordan.

## Scientists at TÜBİTAK MAM-Turkey Receive TÜBA-GEBİP Prize

Turkish Academy of Sciences (TÜBA) has awarded two scientists from TÜBİTAK Marmara Research Center (TÜBİTAK MAM), Turkey, with Young Scientists Award Programme (TÜBA-GEBİP) Prize. TÜBA confers this award every year as part of its mission to encourage and acknowledge the scientific excellence and achievements.

In the field of Polar Studies, Associate Prof. Burcu ÖZSOY, Acting Director of TÜBİTAK Marmara Research Center (MRC) Polar Research Institute, and Faculty Member of Istanbul Technical University Maritime Faculty, was awarded the TÜBA GEBİP Prize for her high achievements. Moreover, Associate Prof. Kamil Boratay ALICI from TÜBİTAK Space Technologies Research Institute was awarded prize in the field of "Engineering Sciences".

## TUBITAK-Turkey Initiates Projects Under EU H2020 Twinning Call

Food Institute of TÜBİTAK MAM, Turkey, has started following two projects approved within the scope of the EU H2020-Twinning Call.

- PhenolAcTwin – Enhancing Research and Innovation Capacity of TUBITAK MRC Food Institute on Dietary Polyphenols and Bioavailability/Bioefficacy.
- MycoTWIN – Enhancing Research and Innovation Capacity of TÜBİTAK MAM Food Institute on



Management of Mycotoxigenic Fungi and Mycotoxins.

## Turkey's First Crystal Turbine Blade Developed by TÜBİTAK MAM-Turkey

TÜBİTAK MAM Materials Institute "High Temperature Materials Research, Development and Repair Center of Excellence", has developed Turkey's first single-crystal blades that can operate under high temperatures (1400°C) for long periods in the high pressure turbine modules. Developed by investment casting method, these blades will be used in the ground tests of the national TS1400 motor developed by TEI and in the ground tests of the first General Purpose Helicopter GÖKBAY (T625).

## TÜBİTAK MAM-Turkey Study Microplastics' Impact on Surface Waters Launched at

TÜBİTAK MAM, Turkey, has entered into an Agreement with the General Directorate of Water Management of the Ministry of Agriculture and Forestry of Turkey, for a project entitled "Microplastics in Surface Waters, Their Impacts and Control Methods". The Agreement was signed by Mr. Bilal DİKMEN, General Director of Water Management, Ministry of Agriculture and Forestry, and Dr. Osman OKUR,

Acting President of TÜBİTAK MAM, Turkey.

Within the scope of the project, microplastics studies will be conducted on surface waters, seas, rivers, transitional water bodies, sediments and biota matrices. The project also aims to determine the impacts of microplastics and to figure out strategies for the development of control methods. Moreover, wastes, microplastics and chemicals adsorbed onto microplastics will be taken into account, and their effects on aquatic ecosystem will be investigated.

## Change in Leadership of KazNU-Kazakhstan

Prof. Dr. Zhansait Tuimebayev has been appointed as the new Rector of Al-Farabi Kazakh National University (KazNU), Kazakhstan, by the Minister of Education and Science of Kazakhstan.

The new Rector has an extensive experience in leadership and diplomacy, having worked as the Minister of Education and Science of Kazakhstan, Deputy Chairman of the Assembly of Kazakhstan, and head of the Secretariat of the Assembly of Kazakhstan, Administration of the President of Kazakhstan. Prof. Tuimebayev is a graduate of Al-Farabi KazNU, Kazakhstan.

## Scientific and Development Projects at KazNU-Kazakhstan

Al-Farabi KazNU, Kazakhstan, has signed a long-term investment agreement with the Turkish company "Görkem Co." for infrastructure building for research and training of professionals in the fields of IT-technologies, innovations and medicine.

According to the agreement, Görkem Co. shall construct the facilities,



## KazNU's Journals Included in the Web of Science Database

Three scientific journals of Al-Farabi KazNU, namely, the series of the Bulletin "Chemical", "Physical" and "Mathematics, Mechanics and Informatics" have been included in the "Russian Science Citation Index" on the Web of Science platform. The database now indexes seven journals of KazNU which is the highest indicator among higher education and research institutes in Kazakhstan.

## CSIR-SARI-Ghana Introduces Farmers to Improved Farming Techniques

The Savannah Agriculture Research Institute of the Council for Scientific and Industrial Research (CSIR-SARI), introduced 180 farmers from six districts in the Upper East Region to new improved agricultural technologies to increase productivity, improve crop varieties and introduce best farming practices that would lead to quality yields.

The demonstration, brought together beneficiary District Directors of the Department of Agriculture, the Agriculture Extension Agents as well as staff of CSIR-SARI. The farmers were introduced to drip irrigation systems, improved agronomic practices, as well as insects, pests and diseases management strategies to cultivate the improved crop varieties to increase productivity.

Dr. Francis Kusi, the lead Senior Research Scientist of the team of scientists and technicians at CSIR-SARI, encouraged the farmers to adopt improved practices to augment the Ghanaian government's efforts to promote their access to quality enhanced seeds and fertilizer under the Planting for Food and Jobs (PFJs)

provide necessary equipment, and then transmit them to state ownership. The arrangements have been made to start the implementation of the first stage of the investment project during 2021.

As per the plan, the university will launch the Alliance of Universities of the New Silk Road IT technopark based on the Silicon Valley model. The technopark intends to cooperate with more than 150 of the world's leading universities. It is also expected to build a hospital with 500 beds and a research laboratory at the Science and Technology Center.

In a meeting with the Ambassador Extraordinary and Plenipotentiary of the French Republic to Kazakhstan, H.E. Mr. Didier Canesse, the Rector of KazNU, Kazakhstan, Prof. Dr. Zhanseit Tuimebayev, discussed the dynamics of upgradation of Geo-Energetics Center. The Center was established by KazNU in collaboration with the University of Lorraine, and is carrying out research work in the field of climate change and is implementing large-scale scientific projects.

The existing Center will be transformed into Kazakh-French Institute of Science, Technology and Energy which is planned to be opened in September 2021.

programme to further increase food production and productivity in Ghana.

## CUI-Pakistan Builds Ties with Leading Chinese Enterprises

A seven-member delegation from Chinese state-owned enterprises – Heroboss Technology, China Gezhouba Group Co., Ltd. (CGGC), and LEDCENT Optoelectronics – visited COMSATS University Islamabad (CUI) to discuss prospects of collaboration in areas of mutual interest. During the visit, the delegates held a meeting with Rector of CUI, Prof. Dr. Tabassum Afzal, and visited various facilities of the Campus.

Heroboss Technology expressed interest in setting-up an LED Research Center in collaboration with CUI for research on LED Technology. Agreeing to this proposal, Prof. Afzal stated that CUI is moving towards product-oriented research in which Chinese technology transfer can play an important role.

CGGC, it was informed, is among the Top 500 state-owned enterprises that have been working in Pakistan since 2008. Some of company's projects in Pakistan include the 1000MW Neelum Jhelum Project, Sukikinari Hydropower Project Kaghan, Mohmand Dam, and Dasso Hydropower Project. The company actively sought academic collaboration with universities to build joint applied research projects.



## COMSATS AND ANSO CONTRIBUTING TO SOUTH-SOUTH COOPERATION

By Ms. Huma Balouch

As the process of developing the 2030 Agenda for Sustainable Development started, the world was increasingly conscious of the need to develop new and innovative cooperation modalities.

This brought a new impetus to the developing countries in the South to increase the depth and breadth of their cooperation to address common socio-economic and development challenges, such as global health, climate change, food security, good governance, etc.

Over the past three decades, importance of South-South and Triangular cooperation has been particularly highlighted by the Commission on Science and Technology for Sustainable Development in the South (COMSATS).

As stated in the Foundation document establishing the Commission in 1994, its basic purpose is to “provide leadership and support for major South-South and North-South cooperative schemes in education, training, and research” to its member states.

Utilizing South-South cooperation as a mechanism to improve member countries’ capacities to better deal with the global challenges and to join the knowledge and resources in the South in a more collective and effective manner, COMSATS encourages governments, development agencies, research institutions, private sector, and civil society in developing countries to collaborate, combine their efforts and expertise, and form necessary partnerships to promote science-based solutions for common development.

COMSATS perennial ties with one of its member countries, China, for strengthening international research collaboration has expanded with COMSATS’ association with the Alliance

of International Science Organizations (ANSO) in November 2019 by means of institutional membership.

With determination to progress on the “leave no one behind” agenda in the context of global development in its three dimensions – economic, social, and environmental, thirty-seven national and regional scientific organizations and the Chinese Academy of Sciences (CAS) as leading and founding member, agreed in November 2018 to establish a long-term effective and multilateral cooperation mechanism, the Alliance of International Science Organizations (ANSO).

ANSO facilitates ST&I cooperation among countries in the Belt and Road region around their shared challenges and concerns to achieve inclusive and sustainable development.

Within these few years, ANSO has made important strides in facilitating collaborative priority-setting for innovation and research cooperation in cross-cutting fields, such as policy and strategic advice, capacity-building and development, and conducting solution-oriented projects among several countries.

COMSATS membership to ANSO enabled the COMSATS Member States and Centres of Excellence to participate in ANSO’s activities including fellowship and scholarships; prize and awards; training program; collaborative research; and professional associations.

COMSATS and ANSO endorsed South-South cooperation as a more relevant and effective strategy for implementation of its Programme of Action and are actively pursuing close cooperation in S&T to help member countries achieve their development goals.

COMSATS-ANSO cooperation involves institutional support, scientific training, joint research programmes, and technology transfer to equip the South with stronger and more effective mechanisms for South-South cooperation.

COMSATS and ANSO are jointly supporting the building of research capacity in developing countries in the South through PhD-level training and short courses on research training organized by ANSO in China.

Examples of ANSO and COMSATS’ major initiatives of South-South cooperation include collaborative research activities through multi-lateral cooperation by focusing on issues of immediate concern to a member organization or its respective country.

With an aim to initiate and improve action-oriented interdisciplinary research, with a greater focus on early identification, prevention, and appropriate intervention for emerging problems and opportunities, ANSO announced a Call for Collaborative Research Project for 2020-2021, under which two research projects R&D projects of COMSATS Centre of Excellence have been granted funds of US\$ 150,000/- each, on the recommendation of and as a result of efforts made by COMSATS.

These collaborative research & innovation projects entitled “Mosquitome of Flying Syringes- *Aedesaegypti* and *Aedesalbopictus* & their Fitness vis-a-vis their Competency to Transmit Infection with Changing Climate” and “Energy and Raw Material Recovery from Treatment Sludge as a Conceptual of Zero Waste” are being carried out by consortia of academic and research organizations from Pakistan, China, Palestine, Tanzania,



Thailand and Turkey.

In parallel, COMSATS is also providing an opportunity to the less technologically advanced member institutions to join International Thematic Research Groups (ITRGs) for working on a collaborative project to benefit from the expertise and experience of the superior Lead Centre.

COMSATS, along with its partner organizations, has also been organizing a series of webinars on the theme of South-South Cooperation in which eminent experts from member countries and international partner organizations are sharing their insights on how to effectively address the socio-economic needs of developing countries through South-South and Triangular cooperation in science and technology.

To highlight opportunities for South-South and Triangular cooperation and the role of ANSO in scaling these up in the region, Prof. Dr. Jinghua Cao, Executive Director, Alliance of International Science Organizations (ANSO), China, delivered a talk on 'Insight on South-South and Triangular Cooperation in S&T' on 23rd February 2021.

ANSO's support for international R&D collaboration is directed at the researcher or at the institutional level, both in and outside Belt and Road region.

Providing unique cooperation models for research-practice collaboration, knowledge transfer, most of these R&D collaborations take place at overseas centers of the Chinese Academy of Sciences in partnership with member

institutions and organizations and other relevant counterparts.

A few include the Sino-Africa Joint Research Centre – China-Africa Partnership on ecosystem services, biodiversity conservation, sustainable agriculture, and food security; Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR) to enhance Belt and Road countries' resilience against natural hazards; China-Pakistan Joint Research Centre on Earth Sciences (CPJRC) to carry out pilot technologies for eco-environmental protection and recovery, and ANSO-Rice & Wheat Variety Technology Innovation and Transfer (ANSO-RWIT) to further develop agricultural innovation & technology in nations alongside the Belt and Road.



Ms. Huma Balouch is Sr. Assistant Director (Programmes) at COMSATS Secretariat Islamabad. Ms. Balouch has, inter alia, been working to promote and map awareness of SDGs among COMSATS' Network and played a pivotal role in taking COMSATS' first step in this process through encouraging universities in Pakistan to embed SDGs within their Institution's strategies and practices. Email: [huma@comsats.org](mailto:huma@comsats.org)

## DEVELOPMENT AND S&T NEWS FROM MEMBER STATES AND BEYOND

### Morocco Launches Africa's Most Powerful Supercomputer

Mohammed VI Polytechnic University (UM6P), Morocco, has formally opened its new data center – African Supercomputing Center (ASCC) – which will host the most powerful supercomputer of Africa. The supercomputer, dubbed Toubkal, intends to help the University coordinate research across Africa in a range of areas, including artificial intelligence and Internet of Things (IoT) technology, genomics and analytics (Data Centre Dynamics Ltd (DCD), 22nd



February 2021).

The supercomputer is powered by Dell PowerEdge C6420 server blades running 2.2GHz Intel Xeon Platinum 82761 CPUs with networking supported by Mellanox Infiniband HDR100 fiber

networking. The device contains more than 69,000 cores and offers more than 8,000 terabytes of combined storage capacity. The system delivers a performance estimated at 3.15 petaflops.

Some inaugural projects include modeling the genome of protected African plants, the microbiome genome of micro-organisms on soil surface, satellite data to help improve agricultural land management across Africa, and meteorological data to help improve the provision of renewable energy across the continent.

## Bangladesh Efforts Towards Sustainable Development Goals

The government of Bangladesh has integrated Sustainable Development Goals (SDGs) into country's national planning framework and is implementing policies in a coordinated manner to facilitate progress towards the Global Agenda.

In line with this, Bangladesh's central bank has created a US\$125 million revolving fund to finance technology development and support Bangladesh's export-oriented industry (PV Magazine, 25th January 2021). This refinancing scheme is aimed at helping factories to upgrade, acquire renewable energy-related machinery and technology and increase environment-friendly production in an effort to achieve sustainable development goals. One of the primary aims of the fund is to enhance capacity, sustainability, environment-friendly, and energy efficient production in factories.

Government of Bangladesh has launched a pilot hydrogen production project as part of its efforts to reduce the country's dependency on fossil fuels and accelerate the transition to clean energy (PV Magazine, 22nd January 2021). The project is aimed at research, quality control related to hydrogen production, storage, supply and infrastructure development as well as at providing services in the form of a national level reference center.

To this effect, a research centre and a pilot processing plant has been set-up by the country. Hydrogen is currently being produced at the pilot plant by using waste and biomass as feedstock. The use of water as a raw material will begin soon with the installation of another processing plant. Following the installation of the pilot plant, BCSIR has

started training scientists to advance the effort towards setting up of a full-fledged Hydrogen Energy Laboratory as part of the project. The expansion of the technology will accelerate the energy efficiency and the government's target to generate 10% of the country's electricity from renewables.

## Iran Opens House of Innovation and Technology in Kenya

One of the important and key aim of the vice presidency for science and technology of Iran is the export of technological products of Iranian knowledge-based companies. In this connection, the first house of innovation and technology was inaugurated in the Kenyan capital of Nairobi on January 27.

Iranian Vice-President for Science and Technology, Dr. Sorena Sattari, officially inaugurated the Iran House of Innovation of Technology (IHIT) in the Kenyan capital of Nairobi (Iran Front Page, 27th January 2021). A house of innovation and technology has already been set up as a technology exchange office in China.

Furthermore, Iran plans to set up two houses of innovation and technology in Syria and Russia in the near future with the aim of finding new markets for domestic knowledge-based products in the region (Tehran Times, 19th February



2021). By supporting innovative ideas, holding technological and innovative events, the centers will be a platform for the development and promotion of Iranian knowledge-based companies, startups, and creative industries. The centers are mainly formed with investment and support of the private sector to provide the necessary infrastructure for their exports through the innovation houses.

In the future, Iran envisions creating innovation and technology in Africa, neighboring countries, Southeast Asia and Eurasia.

## AYCH Launches Incubation Programme for Green Start-Ups

The African Youth Climate Hub (AYCH) has launched a training as part of its Climate Start-up Incubation Programme promoting sustainable development (AllAfrica, 1st January 2021).

Start-ups participating in this programme will receive six months of training in the areas of law, strategy, marketing, communication, psychology and climate change technologies.

For this first edition, AYCH will incubate 10 projects led by young Africans. The AYCH is an incubation initiative that supports sustainable entrepreneurship projects of young Africans, launched in September 2019, on the occasion of the Climate Action Summit.

It is the result of a partnership between the Mohammed VI Foundation for the Protection of the Environment, the YOUNGO (Children and Youth Constituency to United Nations Framework Convention on Climate Change), the OCP Group and the Mohammed VI Polytechnic University, Morocco.

## 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) post-graduate scholarships, for Masters of Science in Mathematics at Lahore Campus of COMSATS University Islamabad (CUI), in collaboration with the International Centre for Theoretical Physics (ICTP), Italy.
- Five (05) post-doctoral fellowships at the International Center for Chemical and Biological Science (ICCBS), Pakistan.
- Five (05) post-doctoral fellowships at the National Research Centre (NRC), Egypt.
- Two (02) PhD scholarships at the Al-Farabi Kazakh National University (KazNU), Kazakhstan.
- 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](http://www.comsats.org) or write to [farhan@comsats.org](mailto:farhan@comsats.org).

## Call for Application

### IsDB-TWAS Postdoctoral Fellowship Programme for Women

Islamic Development Bank (IsDB) and The World Academy of Sciences (TWAS) invites women scientists from IsDB least developed member countries for post-doctoral fellowship. The programme aims to support research related to the United Nations Sustainable Development Goals, providing recipients with high-level training in areas relevant to sustainability science.

**Deadline:** July 19, 2021

**For details, visit:**

<https://twas.org/opportunity/isdb-twas-postdoctoral-fellowship-programme>

## COMSATS Network of Centres of Excellence



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



TÜBİTAK-Turkey  
[www.tubitak.gov.tr/en](http://www.tubitak.gov.tr/en)

## Science Vision - Call for Papers on SDGs

COMSATS invites scholarly contributions for a special issue of its journal, Science Vision. The journal aims at highlighting the important scientific and technological developments having a bearing on socio-economic conditions of the people. For the special issue, we invite papers on topics related to UN 2030 Global Agenda – Sustainable Development Goals. For more information, please visit the journal's website: [www.sciencevision.org.pk](http://www.sciencevision.org.pk).



Contributions from readers are welcome on any matter relevant to the mission of COMSATS, namely the promotion of South-South cooperation in science and technology for sustainable progress of the developing countries. The responsibility for the accuracy of any information rests with the original source. Views expressed in this publication do not necessarily reflect those of its editors, publisher or COMSATS.