



## An Overview of COMSATS' Activities in 2019

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





*Silver Jubilee Issue*

# **An Overview of COMSATS’ Activities in 2019**

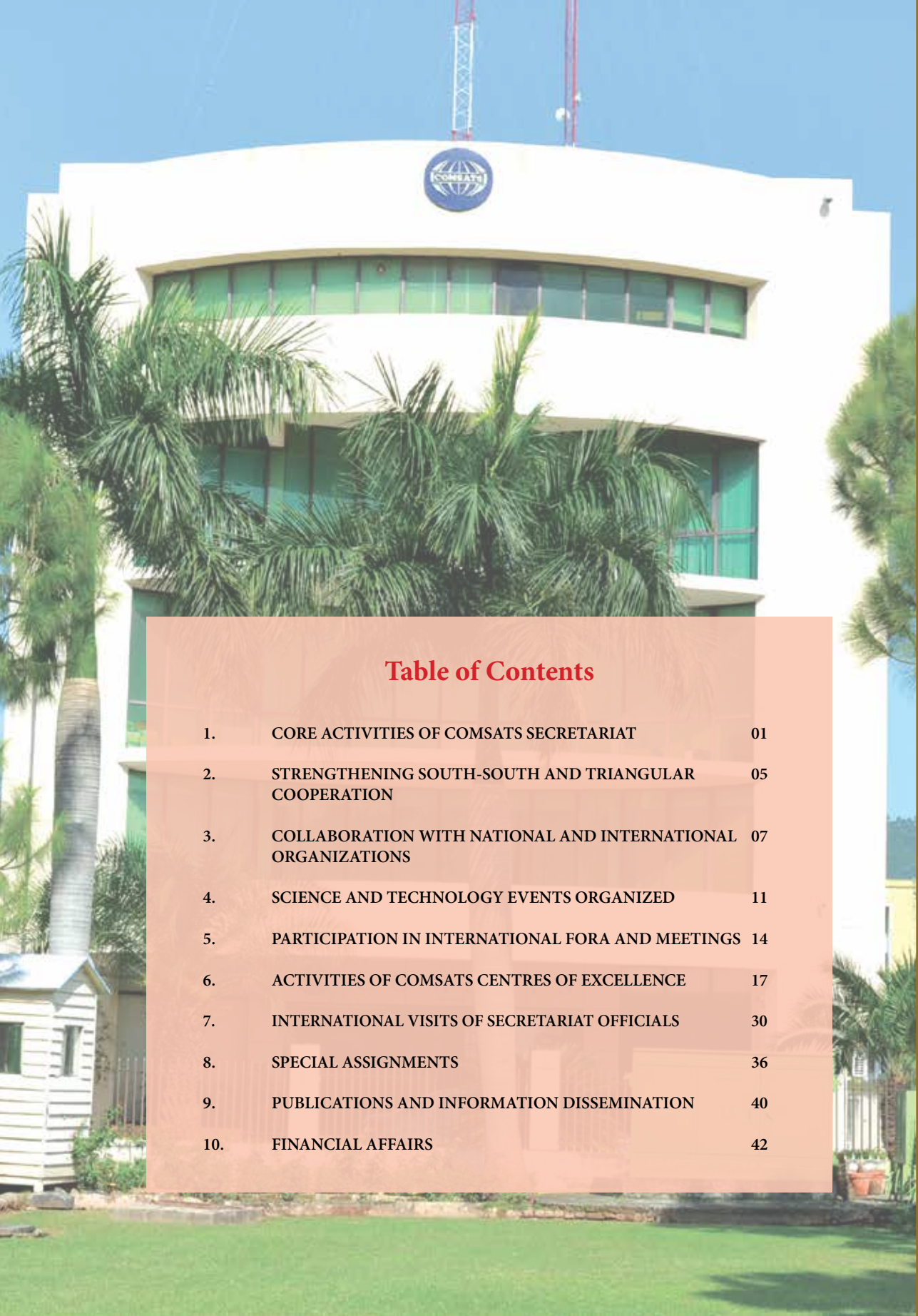
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**March 2020**



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





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## CORE ACTIVITIES OF COMSATS SECRETARIAT

*COMSATS Secretariat provides secretarial assistance to both the Commission and the Network of Centres of Excellence. It is responsible for regularly holding statutory body meetings as well as following up on their deliberations and decisions. The Secretariat also executes COMSATS' programmes and activities in partnership with other intergovernmental agencies, national S&T institutions, R&D organizations, members of academia and scientific community across the world. Other core activities of the Secretariat, inter alia, include enhancing the membership of COMSATS and its Network and special liaison with the host country and other Member States.*



### 22nd COMSATS Coordinating Council Meeting

COMSATS Coordinating Council held its 22nd meeting from 16th - 17th April 2019 in Tianjin, China. The meeting was hosted by COMSATS' most recently inducted Centre of Excellence, the Tianjin Institute of Industrial Biotechnology (TIB), China. The two-day meeting had the participation from 18 Centres of Excellence of COMSATS belonging to Bangladesh, China, Colombia, Egypt, Ghana, Iran, Jamaica, Kazakhstan, Nigeria, Pakistan, Palestine, Sri Lanka, Sudan, Syria, Tanzania, and Turkey. Officials from COMSATS Secretariat, representative of diplomatic mission of Pakistan in China as well as officials of international partner organizations, UNESCO and TWAS, also participated in the meeting.

The meeting was inaugurated on 16th April 2019 by H.E. Laiying Yao, Vice Mayor of

Tianjin Municipal Government, China, in a graceful ceremony. Dr. S. M. Junaid Zaidi, Executive Director COMSATS, Prof. Dr. Ashraf Shaalan, Chairperson COMSATS Coordinating Council, and Prof. Dr. Yanhe Ma, Director General of TIB also spoke at the inaugural.

The Council deliberated upon a 15-point agenda during the meeting presided over by Prof. Shaalan.

### Major Outcomes of the Council Meeting

Among the major outcomes of the meeting were:

- Selection of the Scientific and Technological Research Council of Turkey (TUBITAK) as COMSATS' Centre of Excellence in lieu of TUBITAK Marmara Research Centre (MAM), Turkey;
- Induction of Prof. Dr. Ashraf Shaalan (Egypt) as the Honorary Lifetime Member



of Coordinating Council, and his re-election as Chairperson Coordinating Council for another term of three years (2019 - 2022);

- Enhancement of China's Annual Membership Contribution (AMC) to COMSATS from US\$ 20,000/- to US\$ 50,000/-;
- Nomination of the Food and Nutrition Research Institute (FNRI) and Philippine Textile Research Institute (PTRI) by the Government of the Philippines for induction in COMSATS Network;
- Commitment to strengthen collaboration and partnership for the realization of the Sustainable Development Goals (SDGs) within the framework of the 2030 Global Agenda; and
- Offers of technical cooperation as well as scholarships among members of the Network in a number of scientific fields.

## Follow-up of the Decisions of the 22nd Coordinating Council Meeting of COMSATS

- As per the Council's advice, COMSATS Secretariat organized a number of capacity building events which were in line with the needs and priorities of the scientific workforce of the Centres of Excellence and Member States for the achievement of the UN Sustainable Development Goals (SDGs). The major SDGs addressed through these events were SDG2 (Zero Hunger), SDG4 (Quality Education), SDG6 (Clean Water and Sanitation), SDG8 (Decent Work and Economic Growth), and SDG17 (Partnerships for the Goals);
- In line with Council's decision, COMSATS provided sponsorship to 15 scientists / experts from China, Iran, Kazakhstan, Pakistan, and Sri Lanka;
- COMSATS Secretariat regularly circulated information among its Centres of Excellence and Member States regarding



the research grant programmes, capacity-building activities and other funding opportunities available with COMSATS' partner organizations to encourage their participation for the achievement of common objectives of the Network;

- COMSATS facilitated collaboration between TIB-China and ITI-Sri Lanka, TIB-China and ICCBS-Pakistan, ICCBS-Pakistan and KazNU-Kazakhstan, and CUI-Pakistan and KazNU-Kazakhstan to enable them to collectively address the common challenges;
- Consultations are being made with COMSATS' Network members in China, Iran and Turkey for technical support in establishing top-class universities / research centres / S&T Parks in COMSATS' Member States;
- COMSATS Centre for Climate and Sustainability (CCCS) was further strengthened with the addition of three new members, increasing the number of affiliated organizations to fifteen;
- Under a relevant decision on tapping the potential of Belt & Road Initiative (BRI) for COMSATS Member States and Centres of Excellence, COMSATS became a member to the Alliance of International Science Organizations (ANSO); and
- COMSATS Secretariat invited the Member States and Centres of Excellence to benefit







from the offers of scholarships available within the Network.

### Preparations for the Fourth General Meeting of the Commission

During 2019, COMSATS Secretariat continued efforts towards convening the 4th General Meeting of the Commission of COMSATS in Ghana. The efforts included two visits of the Executive Director to Accra, Ghana, in January 2019 and September 2019, to seek guidance from the incumbent Chairperson of COMSATS, Hon. Nana Addo Dankwa Akufo-Addo, President of Ghana. Moreover, another visit to Ghana was made by the senior COMSATS' officials in October 2019. As an outcome of these meetings, four subcommittees (Protocol and Security; Logistics and Accommodation; Materials and Papers; and Strategic Communication) were constituted to finalize the arrangements for the General Meeting and Accra Forum on S&T for Sustainable Development to be held on its sidelines.

COMSATS Secretariat remained engaged in sensitization activity and consultations regarding the 4th General Meeting and Accra Forum, alongside correspondence with the organizers, stakeholders and other international organizations to seek their

advice for improving the expected outcomes of these events. These activities included a hi-tea in honor of the Ambassadors/High Commissioners and other members of the diplomatic community of COMSATS' member countries; Consultative Meeting with Dr. Akram Sheikh, Co-Chair and Distinguished Senior Fellow at Global Think Tank Network; and Consultative Meeting with Vice Chancellors and senior officials of Pakistani universities.

### COMSATS' Silver Jubilee

COMSATS celebrated the completion of 25 years of its inception early October 2019. After a small ceremony at COMSATS Secretariat on 4th October 2019, the celebrations culminated in a graceful celebration at Host country, Pakistan's President House and an online medical camp to mark the silver jubilee. The celebrations also included extensive print and social media engagement by means of syndicate articles and important information material, and souvenirs. A commemorative postal stamp was issued by the government of Pakistan.

A video montage of congratulatory messages received from COMSATS' Network and Centres was prepared (<https://www.facebook.com/COMSATSofficial/videos/2497436103842738/>).





In addition to a publication that gives a gist of the organization's engagements with member states, a special comprehensive publication on 25 years of COMSATS is also being prepared. A media campaign with articles published in print media duly created awareness on the organization, its mandate and achievements. Social media tools were duly utilised in the process as well.

### Enhancement of Membership of COMSATS' Commission

During 2019, significant inroads were made for the enhancement of COMSATS' membership. Towards this end, ambassadors and dignitaries in Pakistan from a number of countries were reached out, including Australia, Belarus, Hungary, Denmark, Portugal, Russia, Spain, Philippines, and United Arab Emirates (UAE). The membership campaign is also planned to reach out to the Central Asian states, such as Azerbaijan, Uzbekistan and Turkmenistan.

### Enhancement of Membership of COMSATS' Network of International S&T Centres of Excellence

COMSATS Secretariat is interacting with

research centres and universities in Indonesia, Malaysia, Zimbabwe, Gambia, Malawi, and Morocco and Tunisia for possible inclusion in the Network of Centres of Excellence.

### Interactions with Host Country, Pakistan

- On 19th June 2019, the new Chairperson of COMSATS Consultative Committee, H.E. Chaudhry Fawad Hussain, the Federal Minister for Science and Technology, Government of Pakistan, visited COMSATS Secretariat, Islamabad.
- On 6th November 2019, Dr. Zaidi called on H.E. Chaudhry Fawad Hussain at his office in Islamabad and presented him COMSATS' Silver Jubilee commemorative postal stamp.
- On 22nd August 2019, Mr. Muhammad Ehsan Ullah Tiwana, Chairman National Assembly Standing Committee on Foreign Affairs, Pakistan, visited COMSATS Secretariat, Islamabad.
- On 8th August 2019, Ms. Andleeb Abbas, Parliamentary Secretary, Ministry of Foreign Affairs (MoFA), Pakistan, visited COMSATS Secretariat, Islamabad.



## STRENGTHENING SOUTH-SOUTH AND TRIANGULAR COOPERATION

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



### Meetings with Diplomats of Member States

During 2019, meetings were arranged with the foreign diplomats and dignitaries in Islamabad to sensitized them on COMSATS' international programmes and future aspirations. These meetings also aimed at seeking their support for strengthening cooperation between COMSATS and their countries. Meetings were held with the following officials:

- H.E. Maj. Gen. (Retd.) Ibrahim Yala Al Madani, Ambassador of Jordan to Pakistan (22nd October 2019); and
- H.E. Mr. Mohamed Karmoune, Ambassador of Morocco to Pakistan (30th December 2019)

### Meetings with Diplomats of Potential Member States

Meetings were also held with representatives of foreign missions of non-member states throughout the year with a view to enhancing COMSATS' membership and exploring other avenues of cooperation. Among other things, the officials and diplomats were apprised about the mandate, scope and international projects of COMSATS. They were also sensitized about the benefits and obligations of joining COMSATS as a member state. To encourage the officials of respective countries for joining the organization, they were acquainted with the programmes of COMSATS that have benefited the member states. Other aspects related to finances of the organization like Annual Membership Contribution were also



highlighted during the meetings. The officials met included:

- Mr. Khalid Al-Yasin, Counsellor/ Deputy Head of Mission of the State of Kuwait (17th January 2019);
- H.E. Mr. Sakib Foric, Ambassador of Bosnia & Herzegovina to Pakistan (2nd May 2019);
- H.E. Mr. Manuel Durain, Ambassador of Spain to Pakistan (2nd May 2019);
- H.E. Mr. Ali Fikrat Oglu Alizada, Ambassador of Azerbaijan to Pakistan (18th June 2019);
- H.E. Mr. Danila Ganich, Ambassador of Russia to Pakistan (12th July 2019);
- H.E. Mr. Paulo Neves Pocinho, Ambassador of Portugal to Pakistan (25th July 2019);
- H.E. Mr. Hamad Obaid Al Zaabi, Ambassador of UAE to Pakistan (24th September 2019);
- H.E. Mr. Rolf Michael Hay Pereira Homboe, Ambassador of Denmark to Pakistan (25th September 2019); and
- H.E. Mr. Istvan Szaboi, Ambassador of Hungary to Pakistan (26th September 2019).



## COLLABORATION WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS

COMSATS has been endeavoring to expand its cohort of national and international partners to foster broader and more effective collaborations in Science and Technology and launch new programmes and activities with its Centres of Excellence. These partnerships aim to complement the programmes of COMSATS focusing on capacity-building of S&T community in developing countries.



### Organization of Islamic Cooperation (OIC)

A Memorandum of Understanding (MoU) was signed between COMSATS and the Organization of Islamic Cooperation (OIC), Jeddah, Saudi Arabia, on 19th March 2019. Dr. S.M. Junaid Zaidi, Executive Director COMSATS, and Mr. Muhammad Naeem Khan, Assistant Secretary General for Science and Technology (Ambassador – OIC) signed the Agreement on behalf of their organizations during a ceremony held at COMSATS Secretariat, Islamabad.

Under this Agreement, both sides pledged to organize scientific events and conferences, capacity building and training workshops, high-level public awareness seminars and related activities. The Agreement also seeks to enhance exchange and sharing of experiences,

expertise and resources for joint programmes in 17 common member states of COMSATS and OIC.

### Islamic Educational, Scientific and Cultural Organization (ISESCO)

During the reporting period, the partnerships with ISESCO continued through the signing of Joint Cooperation Agreement. Under the signed Agreement, an International Conference on 'Agriculture, Food Security and Biotechnology: Role of ICTs' was held from 4th – 6th November 2019, in Monastir, Tunisia.

### United Nations Development Programme (UNDP)

During 2019, a meeting was held between COMSATS officials and Mr. Ignacio Artaza, Country Director of UNDP for Pakistan at the







latter's office in Islamabad. During the meeting, the Dr. Zaidi apprised the Country Director of activities of the Commission in various fields of S&T and their relevance to SDGs. Appreciating the spectrum of COMSATS' activities highlighted in the briefing, Mr. Artaza underscored various areas of interest and operations of UNDP. He showed keen interest in COMSATS' initiatives relating to SDGs and Climate Change. Both counterparts agreed to further linkages and cooperation in these and other areas of common interest.

### **United Nations Educational, Scientific and Cultural Organization (UNESCO)**

Dr. S. M. Junaid Zaidi, Executive Director COMSATS, and Mr. Tajammul Hussain, Advisor (Programmes), visited UNESCO Headquarters, Paris, France, in October 2019.

Views on building a Science Park in collaboration with UNESCO, COMSATS University Islamabad (CUI) and relevant institutions in Ghana were discussed with Dr. Shamila Nair Bedouelle (Assistant Director-General for Natural Sciences) and Dr. Peggy Oti-Boateng (Director of the Division for Science Policy and Capacity-Building). The

possibility to connect COMSATS' Network with that of UNESCO's to help increase its outreach was also explored.

In the meeting with Mr. Moez Chakchouk, Assistant Director-General for Communication and Information, the two sides agreed to work jointly on smart cities for Sustainable Development. Also, during a meeting with the office-bearers of Priority Africa and External Relations Programme of UNESCO, the delegates considered the prospects of collaborating with UNESCO under its Africa Priority Programme for augmenting COMSATS' operations in the African region.

### **United Nations Office for South-South Cooperation (UNOSSC)**

Under the cooperation that started through an agreement in 2018, cooperation with UNOSSC continued in 2019 through meeting of Ambassador (R) Shahid Kamal with Mr. Jorge Chediek, Director, UNOSSC and Envoy of UN Secretary General for South-South Cooperation. During the meeting, possibility of COMSATS' participation in Global South-South Development Expo was explored along with the launching of a publication highlighting COMSATS' undertakings pertaining to South-South Cooperation.



## Alliance of International Science Organizations (ANSO)

COMSATS has been endorsed for the membership of the Alliance of International Science Organizations (ANSO), Beijing, China, in 2019. The endorsement for membership was made during the ANSO Governing Board meeting held in November 2019, in Beijing, and the final decision shall be made during ANSO General Assembly to be held in the next calendar year.

## Commonwealth Secretariat

Being an accredited organization of Commonwealth, COMSATS was invited to submit project proposals for Commonwealth@70 Committee constituted on the 70th Anniversary of Commonwealth Secretariat. Through its project (under consideration), COMSATS aims to train coastal communities of Sindh and Baluchistan and build their capacities in three areas: health, gender and entrepreneurship.

COMSATS' interactions with Commonwealth Secretariat also included participation in the first Commonwealth ICT and Innovation Open Day held in London, in July 2019.

## European Union (EU)

Cooperation with the European Union included an awareness talk on EU's Marie Skłodowska-Curie Actions (MSCA) Programme organized for the young scientists and researchers at COMSATS Secretariat. The talk, delivered by Ms. Anne Marchal, Deputy Head of Mission, Delegation of the European Union to Pakistan, highlighted various contours of EU flagship Research and Innovation Programme – Horizon 2020 with a special focus on the fellowship opportunities under the umbrella of MSCA.

Furthermore, Ambassador (R) Shahid Kamal held meetings at the European Commission Headquarters, Brussels, Belgium, in September 2019. He also met with Adviser on Demography & Migration at the European Strategy Centre of the European Commission, EU Ambassador at Large for Connectivity, Adviser to EU Ambassador for Connectivity at European External Action Service and International Relations Officer – Pakistan at European External Action Service, for discussing possible collaboration for bringing sustainability in the South.

## Organization for Women in Science for the Developing World (OWSD)

COMSATS initiated collaboration with the Indonesian Chapter of OWSD in a meeting with Dr. Sri Fatmawati, President of OWSD – Indonesia National Chapter, and Assistant Professor at Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia, on 23rd August 2019, at COMSATS Secretariat, during which possibilities were explored for initiating collaboration between ITS and COMSATS' Network.

## American Academy of Arts and Sciences (AAAS)

COMSATS explored common avenues of cooperation with the American Academy of Arts and Sciences (AAAS), Cambridge, Massachusetts. On 20th November 2019, a virtual meeting was held between COMSATS' officials and Dr. John Randell, Director of Science, Engineering, and Technology Programs; Dr. Amanda Vernon, Hellman Fellow for Science and Technology Policy; and Ms. Rebecca Tiernan, Program Associate for the Science, Engineering, and Technology Program at AAAS. The potential areas of collaboration identified during the meeting included education, S&T, energy and environment.





### American Institute of Pakistan Studies (AIPS)

Cooperation with AIPS initiated through an agreement in 2018 resulted in the establishment of an International Centre for Training and Development (ICTD) at COMSATS Secretariat, Islamabad. The Centre aims to provide trainings by foreign experts in areas including climate change, intellectual property rights, higher education and leadership, and energy policy.

COMSATS and AIPS also organized talks on issues pertaining to energy, climate change, and air pollution. Under the collaboration, a visit of delegation from Community Colleges of United States to COMSATS was also arranged.

### Pacific Island Development Forum (PIDF)

Established in 2018, the collaboration with PIDF resulted in the participation of two-member COMSATS' delegation in the second Pacific Islands Development Forum (PIDF) Leaders' Summit and Conference held at Nadi, Fiji, in July 2019. On the sidelines of the Conference, the delegates, Dr. Azeema Fareed (Principal Medical Officer) and Ms. Farhana Saleem (Senior Publications and Communication Officer), held meetings with representatives of various participating

organizations and identified common working grounds in health, energy, and ICTs, among others.

### Institute of Peace and Diplomatic Studies (IPDS)

Since the signing of Agreement between COMSATS and IPDS in 2017, IPDS has been facilitating COMSATS' institutional linkages with the countries of the North for the expansion of COMSATS' programmes.

A major part of such facilitations included arrangement of meetings with a number of foreign diplomats based in Islamabad. COMSATS and IPDS also co-organized different awareness talks in collaboration with the diplomatic community in Pakistan (from China, Mauritius, Philippines, South Africa, and Ukraine), in addition to organizing International Young Diplomats School.

### The World Academy of Sciences (TWAS)

Collaboration with the World Academy of Sciences (TWAS), Trieste, Italy, resulted in two capacity-building events held in Tunisia and Turkey. These resulted in exchange of views and expertise for addressing pressing global issues and achieving sustainable development.





## SCIENCE AND TECHNOLOGY EVENTS ORGANIZED

COMSATS has been organizing scientific events in areas crucial to Member States' development. These result in strengthening scientific linkages; building indigenous capacities; and promoting S&T as a tool for development. These events provide a useful platform to the members of the scientific community, development experts, donor and development agencies, and decision-makers to share their views and experiences on contemporary S&T-led development issues.



### International Workshop on 'Water Resources: Expected Crises and Strategies of Predomination', Cairo, Egypt (11th – 12th March 2019)

COMSATS in collaboration with its Centre of Excellence in Egypt, National Research Centre (NRC), organized an international workshop on Water Resources: Expected Crises and Strategies of Predomination" from 11th – 12th March 2019, in Cairo, Egypt. The event brought together scientists, academicians, managers in private sector, and mid-to senior-level government officials to discuss and find solutions to the issues related to water resources.

The technical proceedings of the two-day event comprised of thirty sessions including two plenary sessions, during which presentations were made by speakers from Pakistan, Egypt, China, Sri Lanka, Nigeria, and Sudan.

### Seminar on 'The Role of Youth in the Implementation of the SDGs', Islamabad, Pakistan (24th April 2019)

To observe the United Nations First International Day of Multilateralism and Diplomacy for Peace, COMSATS held a seminar on the role of youth in the implementation of Sustainable Development Goals (SDGs). The Seminar had participation of student from COMSATS University Islamabad (CUI), Islamabad, and Abdul Wali Khan University (AWKU), Mardan, Khyber Pakhtunkhwa (KPK) Province.

Mr. Vlastimil Samek, Director of the United Nations Information Centre (UNIC) graced the occasion as the Chief Guest.

### Seminar on 'Second Belt and Road Forum: Achievements and Prospects', Islamabad, Pakistan (3rd May 2019)

Within the framework of the Second Belt





and Road Forum (25th – 27th April 2019, Beijing, China), COMSATS in collaboration with the Centre for Belt and Road Initiative and China Studies of the Institute of Peace and Diplomatic Studies (IPDS) organized a seminar highlighting the various prospect and achievements of the Forum. The seminar attracted diplomatic community, students and members of the civil society.

### **Talk on “Peaceful Cohabitation in Rainbow Islands: A Case Study of Mauritius” (11th July 2019)**

COMSATS and the Institute of Peace and Diplomatic Studies (IPDS) jointly organized a talk on “Peaceful Cohabitation in Rainbow Islands: A Case Study of Mauritius” at COMSATS Secretariat. The talk, H.E. Mr. Soobadar Rashidally, High Commissioner of Mauritius in Islamabad, was attended by members of the diplomatic community, students and officials of COMSATS and IPDS.

### **Talk on ‘Community Building in ASEAN’, Islamabad, Pakistan (16th July 2019)**

COMSATS and the Institute of Peace and Diplomatic Studies (IPDS) co-organized a talk on “Community Building in ASEAN”. The talk which was delivered by H.E. Mr. Daniel Ramos Espiritu, Ambassador of

Philippines to Pakistan, was attended by a number of diplomats, faculty members, media representatives, civil society members and students.

### **Talk on “Nelson Mandela’s Legacy: Lessons for Today and Tomorrow” (25th July 2019, Islamabad, Pakistan)**

To commemorate Nelson Mandela International Day, COMSATS and the Institute of Peace and Diplomatic Studies (IPDS) organized a talk themed on “Nelson Mandela’s Legacy: Lessons for Today and Tomorrow”. It attracted participants from members of diplomatic community, members of civil society as well as students. The talk delivered by H.E Christo Janse Van Noordwyk, Acting High Commissioner, South African High Commission in Pakistan, highlighted the various aspects and characteristics of Nelson Mandela’s leadership.

### **Seminar on ‘Pakistan China Industrial Cooperation’, Islamabad, Pakistan (9th October 2019)**

A seminar on ‘Pakistan China Industrial Cooperation’ was organized by COMSATS and the Institute of Peace and Diplomatic Studies (IPDS) on 9th October 2019. Ms. Pang Chunxue, Chargé d’Affaires, Embassy of China to Pakistan, graced the occasion as the Guest of Honor. The seminar brought together members of the diplomatic community, academicians and students.

### **International Conference on ‘Agriculture, Food Security and Biotechnology: Role of ICTs’, Monastir, Tunisia (4th – 6th November 2019)**

The 5th International Conference on





‘Agriculture, Food Security and Biotechnology: Role of ICTs’ was held in collaboration with ISESCO, and the Inter Islamic Network on Information Technology (INIT) in Monastir, Tunisia, from November 04 – 06, 2019. The Conference was hosted by TYAN and the Ministry of Higher Education and Scientific Research of Tunisia.

Over 50 researchers and subject experts from 25 countries including Algeria, Bangladesh, Benin, Cameroon, China, Egypt, Gambia, Italy, Iraq, Jordan, Kazakhstan, Morocco, Nigeria, Niger, Oman, Pakistan, Philippines, Senegal, Sri Lanka, Sudan, Tunisia and Turkey, Uganda, and Yemen attended the event. In addition, representatives of COMSATS’ Centres of Excellence in Iran (Iranian Research Organization for Science and Technology – IROST), Kazakhstan (Al-Farabi Kazakh National University – KazNU), and Sri Lanka (Industrial Technology Institute – ITI) participated in the event.

### **International Young Diplomats School (IYDS), Islamabad, Pakistan (3rd to 5th December 2019)**

The third edition of the International Young Diplomats School (IYDS) was jointly organized by COMSATS and the Institute of Peace and Diplomatic Studies (IPD) at COMSATS

Secretariat, from 3rd to 5th December 2019. Apart from foreign participants from China and Indonesia, the three-day event attracted participants from various regions of Pakistan, including KPK, FATA, Interior Sindh, South and North Punjab, Islamabad Capital Territory, Balochistan, and Kashmir, AJK.

### **International Workshop on ‘Sustainability, SDGs and Global Challenges’, Gebze, Turkey (3rd – 5th December 2019)**

An international workshop was jointly organized by COMSATS in collaboration with the Scientific and Technological Research Council of Turkey (TUBITAK), Turkey, and the World Academy of Sciences (TWAS), Italy, from 3rd – 5th December 2019, in Gebze, Turkey.

The Swedish International Development Cooperation Agency (SIDA) sponsored the event that was attended by 35 scientists belonging to Algeria, Botswana, Bangladesh, Benin, Burkina Faso, Congo, Italy, Kenya, Mali, Nepal, Niger, Palestine, South Africa, Senegal, Sri Lanka, Tanzania, Togo, Turkey and Uganda.

### **Talk on “Ukraine: History, Culture and Present Situation” (10th December 2019)**

A talk on “Ukraine: History, Culture and Present Situation” was arranged by COMSATS and the Institute of Peace and Diplomatic Studies (IPDS) at COMSATS Secretariat, Islamabad, on 10th December 2019. The talk attracted members of the diplomatic community, researchers and students and was delivered by Dr. Olena Bordilovska, Second Secretary at the Embassy of Ukraine to Pakistan.





## PARTICIPATION IN INTERNATIONAL FORA AND MEETINGS

*Events and organizational meetings of partner and potential partner organizations are utilized as means to aiding joint efforts for regional and international development. Based on commonalities of mandates, reciprocal representation in statutory meetings and capacity building events are encouraged as good networking opportunity.*



### **INSME Annual Meeting “Fintech & Logistics: New Technologies and Markets for SMEs” (Naples, Italy, 6th – 7th June 2019)**

A two-member delegation of COMSATS participated in 15th INSME Annual Meeting “Fintech & Logistics: New Technologies and Markets for SMEs”, held from 6th – 7th June 2019, in Naples, Italy. The delegation comprised of Dr. Kamran Jahangir, Advisor Technical Advisory Committee (TAC) and Mr. Laeeq Hassan Jaswal, Manager Strategic Partnerships.

On the sidelines, COMSATS’ officials held meetings with senior officials of INSME in order to explore avenues of cooperation.

### **International Events on Aerosols and Climate Change (Beijing, China, 15th – 20th July 2019)**

COMSATS’ delegation comprising of Mr.

Tajammul Hussain, Advisor (Programmes), and Major Gen (R) Muhammad Tahir, Advisor (China Desk), participated as organizers in international events held from 15th – 20th July 2019, in Beijing, China.

The two events on aerosol observation, modelling and climate change, were jointly organized by CAS-TWAS International Centre for Climate and Environment Sciences (ICCES), Institute of Atmospheric Physics (IAP) of the Chinese Academy of Sciences (CAS), and China Meteorological Administration (CMA). The events were sponsored by CAS, COMSATS, The World Academy of Sciences (TWAS) and Chinese Ministry of Science and Technology.

On the sidelines of the events, COMSATS’ officials held meetings with ICCES officials and exchanged views on matters of mutual interest to foster bilateral cooperation.



## First Commonwealth ICT and Innovation Open Day (London, United Kingdom, 29th July 2019)

Representing COMSATS (a Commonwealth accredited organization), Ambassador (R) Shahid Kamal, Advisor (Environment and Climate Change), participated in the first Commonwealth ICT and Innovation Open Day, held at Marlborough House, London, on 29th July 2019. The event provided a platform to the members of the diplomatic communities, Commonwealth organizations and partners to understand, appreciate, and reflect on digital transformation and innovation; showcase new products and services; as well as to increase the potentials for co-creation and innovation in the future.

During his sideline meeting with H.E. Patricia Scotland and Dr. Nabeel Goheer (Assistant Secretary General at Commonwealth), Ambassador (R) Kamal explored the possibility to further the bilateral cooperation between the two organizations through joint activities.

## Second PIDF Leaders' Summit and Conference 2019 (Nadi, Fiji, 29th – 30th July 2019)

A two-member COMSATS' delegation, comprising of Dr. Azeema Fareed (Principal

Medical Officer) and Ms. Farhana Saleem (Senior Publications and Communication Officer), participated in the second Pacific Islands Development Forum (PIDF) Leaders' Summit and Conference 2019, held from 29th – 30th July 2019, at Nadi, Fiji.

On the sidelines of the Conference, a number of productive meeting were held by COMSATS' delegates representatives of PIDF, UNOSSC, SunTECH, Huawei, Pacific China Friendship Association, and Pacific Islands Universities Research Network (PIURN).

## Launching Ceremony of the United Nations Global Sustainable Development Report 2019 (Accra, Ghana, 31st October 2019)

On special invitation from Dr. Eugene Owusu, Special Advisor to the President of Ghana on SDGs, COMSATS' delegation comprising of Mr. Nisar Ahmad, Deputy Director (Systems) and Mr. Farhan Ansari, Senior Assistant Director (Programmes) participated in the launching ceremony of Global Sustainable Development Report 2019, entitled "The Future is Now: Science for Achieving Sustainable Development", held at the United Nations Information Centre (UNIC) in Accra, Ghana, on 31st October 2019.





### **EU-Asia Connectivity Forum (Brussels, Belgium, 27th September 2019)**

Ambassador (R) Shahid Kamal, Advisor (Environment and Climate Change), participated in the Europa Connectivity Forum held in Brussels, Belgium, on 27th September 2019. The Forum, themed “EU-Asia Connectivity: Building Bridges for a Sustainable Future”, was aimed at fostering dialogue and strengthening ties between governments, financial institutions, and the private sector in Europe and beyond.

On the sidelines of the Forum, Ambassador (R) Kamal held important meetings for exploring ways to build synergies between COMSATS and European Union within the framework of EU programme for connectivity.

### **Asia-Africa Youth Entrepreneurs Forum (Beijing China, 15th – 19th October 2019)**

Engr. Qaiser Nawab, Assistant Director (Programmes) at COMSATS Secretariat, participated in Asia-Africa Youth Entrepreneurs Forum held in Beijing, China, from 15th – 19th October 2019. The event was

organized by “Great Silk Way” International Youth Union (GSW IYU) and All-China Youth Federation (ACYF). In his speech on “Forging Partnerships to Promote Youth Entrepreneurship and Attaining SDGs”, Engr. Nawab highlighted COMSATS’ firm resolve and commitment towards the implementation of the United Nations Sustainable Development Goals.

### **Non Aligned Movement Youth Summit (Baku, Azerbaijan, 24th – 26th October 2019)**

Engr. Qaiser Nawab, Assistant Director (Programmes) at COMSATS Secretariat, participated in the Non-Aligned Movement (NAM) Youth Summit held in Baku, Azerbaijan, from 24th – 26th October 2019. On the sidelines of the Summit, Engr. Nawab held meetings with H.E. Dr. Mukhisa Kityui, Secretary-General of the United Nations Conference on Trade and Development (UNCTAD); and Ambassador Chad Blackman, Ambassador and Permanent Representative of Barbados to the United Nations and World Trade Organization (WTO) at Geneva. During these meetings, views were exchanged on matters relating to initiating collaboration between COMSATS and various UN agencies.





## ACTIVITIES OF COMSATS CENTRES OF EXCELLENCE

*A group of twenty-two S7T/R&D and higher education institutions from different developing countries, predominantly COMSATS' Member States, is affiliated with COMSATS constituting its Network of International S&T Centres of Excellence. The Network serves as COMSATS' technical resource for South-South cooperation, in line with these institutions' mandate of having programmes of scientific research and development. This section covers reports received from COMSATS' Centres of Excellence, as well as news of some Centres covered in COMSATS Newsletter over the year.*



### Al-Farabi Kazakh National University (KazNU), Kazakhstan

During 2019, following agreements were signed by KazNU:

- Memorandum of Cooperation (MoC) with the Antalya Bilim University, Turkey, for bilateral faculty and student exchange, scientific internships and implementation of research projects;
- Agreement with the Severance Hospital, Yonsei University Health System, South Korea, for launching the second phase of the development of Research and Educational Biomedical Cluster at its campus in Almaty;
- Memorandum of Cooperation (MoC) with Chinese IT enterprise, Inspur, to help implement joint projects for the production of high performance servers, data storage systems and personal computers in Kazakhstan;
- Agreement with the McGill University,

Canada, to establish a joint Neuro-Rehabilitation Center within the City Central Clinic Hospital, Almaty; and Memorandum of Cooperation (MoC) with the Refex Group, India, in the field of renewable energy sources (RES) for the establishment of a demonstration center for alternative energy sources at the University's campus.

KazNU established a Center for the production of natural raw material-based medicines in collaboration with the Department of Science and Technology for Social Development of the Chinese Ministry of Science and Technology. Besides, the University opened HAINA Academy of Information and Communication Technologies in collaboration with Huawei Technologies Kazakhstan, and Al-Farabi Research and Educational Center at Cairo University, Egypt.

The major events of KazNU during 2019, included:



- The VII International Conference on Nanomaterials and Advanced Energy Storage Systems (INESS-2019), from 7th – 9th August 2019;
- Global University Summit from 19th – 21st September 2019;
- International scientific conference on “Inverse Problems in Finance, Economics and Life Sciences”, from 31st August – 4th September 2019.



Prof. Dr. Galym Mutanov, Rector of KazNU, was elected as the President of the International Association UNION (Universities Open Network) at the grand opening of the QS Worldwide Forum, held in Almaty, Kazakhstan, from 19th – 20th September 2019. He was also awarded the prestigious international award “Leader of Science – Web of Science Awards – 2019” in a ceremony held at Al-Farabi KazNU on 13th November 2019. Additionally, Prof. Mutanov received an independent award as the author of a scientific monograph, which was included in the world’s leading database of scientific citations, Web of Science Core Collection.

On 12th December 2019, an award ceremony was organized by Elsevier at KazNU for honoring the winners of Scopus Award Kazakhstan – 2019 where six scientists were awarded in the following categories: Best Paper

of the Year; Top Researcher in Engineering and Technologies; Top Researcher in Social Sciences; Young Researcher of the Year; and Women in Science Award.

## Al-Quds University (AQU), Palestine

In 2019, AQU signed agreement with the Marmara University, Turkey, for joint collaboration in scientific research and other areas of mutual interest. The University also established collaboration with the International School for Government at King’s College London, for the development of academic programs at AQU. In addition, Prof. Imad Abu Kisek, President of AQU, signed a number of agreements with German universities and institutions to promote student-exchanges and training.

With the sponsorship of England based Al-Quds Foundation for Medical Schools in Palestine and the United Nations Development Programme (UNDP), AQU introduced first of their kind virtual anatomy laboratories in Palestinian medical schools.

A “Clear E Care” team of AQU bagged the first place (defeating 32 teams) in the Palestinian Hult Prize Summit 2019 held under the sponsorship of Palestinian Higher Council for Youth and Sports (HCYS) for their idea of creating a new sterilization system for medical clothing.



## Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh

In 2019, BCSIR initiated whole genome sequencing of humans for the first time in Bangladesh for identification of genetic diseases. To serve the purpose, BCSIR installed NovaSeq machine having the capability of sequencing genomes of 48 people in 72 hours.

A three-day BCSIR Congress 2019 in conjunction with the International Union of Forest Research Organizations (IUFRO) WP 5.07.03 Conference on “Green Technology of Pulp, Paper and Allied Industries” was held at BCSIR, from 12th – 14th December 2019. The Congress comprised of 29 technical sessions during which technical papers were presented by 200 participants from ten countries.

## International Centre for Physics (CIF), Colombia

In 2019, CIF explored common grounds of cooperation with COMSATS in a number of fields to help consolidate and expand COMSATS’ Network activities in the Southern region and beyond. In this respect, a meeting was held between officials of CIF and COMSATS Secretariat during the visit of the latter to Colombia.

## COMSATS University Islamabad (CUI), Pakistan

CUI established a Rapid Prototyping Facility at its Islamabad Campus. The Facility houses major mechanical and electrical equipment required to fabricate products. A Memorandum of Understanding (MoU) was also signed by CUI with Cotton Craft Pvt. Ltd., Pakistan, for commercialization of a wound care application. Besides, under a partnership agreement with the Al-Farabi Kazakh National University

(KazNU), Kazakhstan, ‘Al-Farabi Corner’ was opened by CUI at Junaid Zaidi Library housed at its Islamabad Campus.

In the year 2019, total of 2,705 impact factor publications were made in national/ international journals by the faculty of CUI. In addition, 74 research projects, 30 travel grants

Patents Applied (2019)	
Pakistan	8
United States	3
Malaysia	1
Singapore	1
Japan	1
Brazil	1
India	1
Indonesia	1
China	1
<b>Total</b>	<b>18</b>

Patents Granted (2019)	
Pakistan	2
United States	5
<b>Total</b>	<b>7</b>



and 4 seminars/workshops won funds from different funding agencies.

Fifteen (15) seminars, workshops, conferences and forums were organized by CUI during 2019, on topics including: International Model United Nations; Environmentally Sustainable Development; Business and Industry; Academic Collaboration for Sustainable Partnerships; Information Technology.

Delegations from universities in Australia, Belgium, China, France, Korea, Germany, Japan, Turkey, UK and USA visited CUI with a view to strengthen collaboration in academics and to promote higher education, exchange knowledge, transfer technologies and share good practices. Besides, the World Academy of Sciences (TWAS) also collaborated actively with CUI during the reporting period.

During 2019, total of 248 international students from 7 countries, i.e., Afghanistan, Canada, China, Nigeria, Gambia, Indian Occupied Kashmir and USA Tanzania were enrolled in Software Engineering, Mathematics, Accounting and Finance, Computer Science Physics and Bio-sciences programmes.

Country-wise Enrollment of International Students	
Country	No. of Students
Afghanistan	233
Gambia	1
Kashmir	1
Nigeria	7
China	4
USA	1
Canada	1

The Cambridge IFA and UK awarded CUI the Global Good Governance (3G) Award for

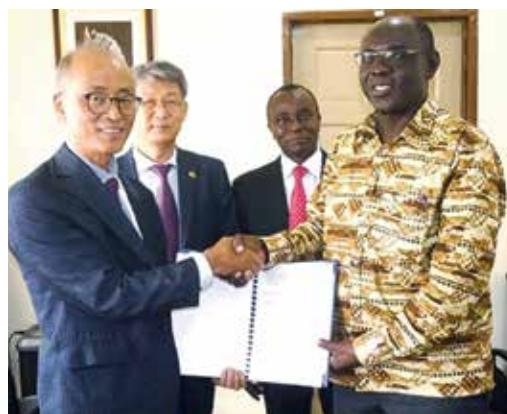
Excellence in Higher Education on 15th March 2019, in Jakarta, Indonesia.

Prof. Dr. Arshad Saleem Bhatti, Dean of Faculty of Science at CUI was conferred Pakistan's Third Highest Civilian Award, Sitara-i-Imtiaz (Star of Excellence), on 14th August 2019, in recognition of his contribution to the field of Nanotechnology, Nanoscience and Applied Physics.

## Council for Scientific and Industrial Research (CSIR), Ghana

A Digital Agricultural Innovation Hub (DAIH) is being established at CSIR for the management of agricultural data. DAIH, to be completed by mid-2020, would put all the technologies developed over the years by CSIR for the access of farmers and the public. Besides, CSIR signed a Memorandum of Understanding with the Korean Programme on International Agriculture (KOPIA), Korea, to expand its commercialization activities.

CSIR introduced new improved varieties of "Vitamin A" rich orange maize in partnership with the Crops Research Institute (CRI). The improved varieties mature early and contains vitamin "A" which has numerous health benefits.





Food Research Institute (FRI) and Science and Technological Policy Research Institute (STEPRI) of CSIR organized a two-day training workshop on “Climate-Smart, Innovative Food Preservation and Processing Technologies Applied by Women in Rural Area in Sub-Sahara Africa” in Accra, Ghana, in collaboration with the Food and Agriculture Organization (FAO) of the United Nations.

### **Industrial Research and Consultancy Center (IRCC), Sudan**

In 2019, IRCC successfully executed the project titled: “Reduction of Persistent Organic Pollutant chemicals (POPs) in Leather Industry” under the Five-Year Plan (2015-2019) with United Nations Industrial Development Organization (UNIDO). The project was aimed at introducing eco-friendly alternatives to Persistent Organic Pollutant chemicals (POPs) which are used in tanning process to support the Sudanese leather industry in a sustainable manner. The closing ceremony of the project was held on 21st July 2019, at the National Leather Technology Center (NLTC) of IRCC.

### **Industrial Technology Institute (ITI), Sri Lanka**

In 2019, ITI became the first institute in Sri Lanka to offer proficiency testing service. Having been granted ISO/IEC 17043: 2010 Accreditation for Proficiency Testing by Sri Lanka Accreditation Board (SLAB), ITI will provide Proficiency Testing to National Quality Infrastructure. On the other hand, scientists at ITI succeeded in developing a simplified low cost honey quality detection kit to help farmers test the quality of honey on field.

Based on its performance and supreme quality of services, ITI was also invited by the International Labor Organization (ILO) under the Local Empowerment through Economic



Development (LEED) project, to offer its food technology services for the upgradation of selected micro, small and medium enterprises (MSMEs) in Jaffna, Kilinochchi and Vavuniya, Sri Lanka.

ITI organized the 4th Biennial Research Symposium of ITI ‘Science, Technology and Innovation for Sustainable Development’ from 17th – 18th December 2019. The Symposium, comprising of 41 presentations in two parallel sessions, attracted over 250 participants belonging to ITI, universities and R&D Centres of Sri Lanka, as well as industry. The outstanding performance of ITI scientists and engineers was also appreciated at the 4th Biennial Research Symposium during the award ceremony where more than 28 researchers were conferred awards and certificates in various categories.

### **International Center for Chemical and Biological Sciences (ICCBS), Pakistan**

During the reporting period, ICCBS established following R&D centres: Joint Laboratory for Innovation in Natural Products Research and Development in collaboration with Al-Farabi KazNU, Kazakhstan; Research Centre on “Sino-Pakistan TCM & Ethnomedicine” and “Sino-Pakistan TCM”;



DNA and Serology Laboratory at the Jamil-ur-Rahman Center for Genome Research of Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD); and Virology Center in collaboration with the University of Tübingen, Germany.

The Center for Bioequivalence Studies and Clinical Research (CBSCR) at ICCBS successfully completed one-year trial of Yinhuang Qingfei Capsule, first ever traditional Chinese medicine (TCM) for bronchitis. ICCBS entered into Agreement with the following institutions:

- Tianjin Institute of Industrial Biotechnology (TIB), China, for the promotion of cooperation in various fields of bioorganic chemistry and biological sciences;
- Southwest Medical University Hospital (HASMU), China, for cooperation in the field of traditional medicine;
- Hunan University of Chinese Medicine, Changsha, China;
- Khawaja Fareed University of Engineering and Information Technology (KFUEIT), for cooperation in sharing analytical facilities for research in synthetic organic and natural products chemistry; and
- Department of Health, Government of Sindh, to improve Chemico Bacteriological Laboratory of the Department.

The major events of ICCBS during 2019, included: 5th Science and Technology Exchange Program (STEP5) Conference, from 28th February – 2nd March 2019; and 7th International Symposium-Cum-Training Course on Molecular Medicine and Drug Research, from 4th – 7th November 2019.

Prof. Dr. Muhammad Iqbal Choudhary, Director of ICCBS, was awarded the title of Al-Farabi KazNU Honorary Doctor by Al-Farabi Kazakh National University



(KazNU), Kazakhstan, in a ceremony held at the University on 2nd April 2019. He was also elected as the member of the Executive Management Group (EMG) of the ‘A Global Network of the Tropical Neglected Diseases (NTD)’.

Hunan University of Chinese Medicine (HUCM), Changsha, has established “Academician Professor Atta-ur-Rahman One Belt and One Road TCM Research Center” to honor the scientific contributions of renowned Pakistani scientist, Prof. Dr. Atta-ur-Rahman, Patron-in-Chief of ICCBS in the field of traditional medicine. Besides, ICCBS became a member organization of the Global Open Biodiversity and Health Big Data Alliance (BHBD) housed at Beijing Institute of Genomics, Chinese Academy of Sciences, China.

## International Center for Climate and Environmental Sciences (ICCES), China

Prof. Zhaohui Lin, Director of the CAS-TWAS Center of Excellence for Climate and Environment Sciences (ICCES) visited the National Research Centre (NRC), Egypt, from January 19 to 20, and met with Prof. Ashraf Shaalan, the former President of NRC, and senior officials of NRC. An important point





of the meeting was possibility of establishing a new center on climate change. The visit was reciprocated by Prof. Shaalan later in April 2019, and possibilities of mutual cooperation were discussed.

The Academic Sponsorships of ICCES included the following:

- President's International Fellowship Initiative (PIFI) – under the programme, Dr. Victor Dike will stay at ICCES for 2 years to conduct his research on the project “Simulating the Impact of Trans-Tropical- Atlantic-Pacific Ocean Dipole on Future Variation of Extreme Summer Rainfall Events over West Africa”.
- TWAS-UNESCO Associate at ICCES – under the Scheme, Dr. Sathaporn Monprapussorn from Geography Department of Srinakharinwirot University, Thailand, visited ICCES from April 8th – June 4th 2019, to conduct collaborative research on comparative study of land use models and urban heat island effects between China and Thailand.

The following capacity-building activities were organized by the Centre:

- International Workshop for Climate Change between Present and Future

Scenarios, from January 22 to 23, 2019, with NRC, Egypt;

- The 18th CTWF International Training Workshop on Atmospheric Aerosol, from 18th to 20th July 2019, in Beijing, China;
- The International Network on Climate and Environmental Sciences (INCES) was launched in Beijing China on 17th July 2019.

### Iranian Research Organization for Science & Technology (IROST), Iran

On March 04, 2019, the Iranian Research Organization for Science & Technology (IROST) held the 32nd Al Khwarizmi International Award ceremony. The Award is conferred annually to researchers, inventors and innovators from all over the world in recognition of their outstanding scientific achievements. Out of the total nominations of 271 Iranian and 111 foreign researchers from 40 countries across the world, 16 won the Award. COMSATS has been sponsoring the cash prize and certificates of the first and second prize winners of the Award since 2000. This year's first and second prizes worth US\$ 1,500 and US\$ 500 were granted to Dr. Mohammad Durali and Mr. Hamid Raza Nasiri, respectively.

## National Mathematical Centre (NMC), Nigeria

NMC has expanded its facilities with addition of a 500-Seater Auditorium and Participants' Hostel and Participants' Guest House.

The Research Activities of the Centre included:

- Ethno-Mathematics in Mathematics Research Group has developed strategies to enhance research, teaching and learning of Mathematics, especially on Combinatorics, Graph Theory and Network Analysis using women stories based on cultural experiences.
- Computational Mathematics and Scientific Computing research group is developing numerical codes which will satisfy standard computational properties and are to be deployed for numerical simulation of interdisciplinary real life problems.

Capacity-Building Activities of NMC during the year included:

- 6th International Conference on Mathematical Analysis and Optimization: Theory and Applications (ICAPTA 2019);
- Three-day Colloquium in Algebra (July 2019);
- Foundation Postgraduate Course on Relative Astrophysics (22 April to 3 May 2019);
- Five-day Workshop for Mathematics Teachers of Federal Unity Colleges (20 to 24 May 2019);
- Training of Olympiad Teachers (18 to 23 August 2019);
- Foundation Postgraduate Course in Inference Statistics (7 to 26 October 2019);
- 2019 Nigeria Universities Computer Programming Contest (NUCPC) and Africa & Arab Collegiate Programming Championship (ACPC);
- Statistics Competition for undergraduate students 2019.

The Centre is presently collaborating with the University of Abuja, Nigeria, to run its MSc Financial Mathematics programme, and is also collaborating with CU's department of mathematics.

## National Research Centre (NRC), Egypt

Textile Industries Research Division of National Research Centre (NRC), Cairo, Egypt, conducted research work to explore industrial-scale applications. Some applications of emerging technologies of special interest to the Division are as follows: Nano-coating technology and smart coatings for material reinforcement, protective clothing, medical textiles, as well as creating self-cleaning fabric.

## Royal Scientific Society (RSS), Jordan

HRH Princess Sumaya bint El Hassan, President of RSS, Jordan, launched the "Charter of Ethics of Science and Technology in the Arab Region" at the World Science Forum held in Budapest, Hungary, from 20th – 23rd November 2019.

RSS presented "Getting ready for the transition towards ETF" -Case of Jordan at the Annual Partnership Retreat of the Partnership on Transparency.

The following are major research projects of RSS during 2019:

- Rural Economic Growth and Employment Project (REGEP)/ Qualitative Study in Preparation of Baseline Quantitative Survey for REGEP project;
- Strengthening Capacities for Wastewater Management in Jordan;
- Science Engagement, Mentoring and Empowerment of Young Scientist; Climate Change & Energy challenges.
- Ambient Air Quality (AAQ) Monitoring





and Assessment in the Industrial Areas as a part of an AAQ Monitoring Network/ Ministry of Environment (MoEnv);

- Ambient Air Quality (AAQ) Monitoring and assessment in Attarat area / Saudi Arabian Corporation for Oil Shale (SACOS);
- The Production of Hollow and Solid Concrete Blocks for Walls and Slabs.

International Collaborations included agreements with: International Water Management Institute; International Youth Ambassadors Foundation (IYAF) on advocacy of the 17 SDGs; CAST software India private limited; UNDP for a project on “development of the second biennial update report to the UNFCCC; Navigant Energy Germany GmbH on COOL\_ME project; ISESCO; and Jiangsu Industrial Technology Research Institute (JITRI), China.

Capacity-building activities of RSS during 2019 include the following:

- Training on GHG Inventory and Analysis (September 2019);
- First National meeting of the Local Community Initiatives to Preserve the Environmental and Cultural Heritages in Jordan (October 2019);



- Annual Meeting of WAB-Net (December 2019);
- Regional Workshop on Entrepreneurship for Scientists and Engineers in Member States (August 2019);
- First National Learning Alliance meeting about Wastewater Reuse in Agriculture (July 2019);
- The 2nd Annual Meeting of the Western Asia Bat Research Network (WAB-Net);
- Events organized on social issues, such as Social Entrepreneurship in the MENA Region, Inclusiveness and Growth, Innovative Strategies for Women Empowerment;
- 41 capacity building courses, attended by 540 trainees, such as Radiation protection; Problem solving; Control charting; Climate Change sessions /Ford Project; and Validation of Analytical Chemical Methods.

The second phase of the EU-funded project “Transfer of Environmentally Sound Technology (TEST)” was launched by RSS in collaboration with the United Nations Industrial Development Organization (UNIDO) to develop new growth opportunities for the Jordanian industry.

The National Monitoring, Reporting and Verification (MRV) System for Greenhouse Gas Emissions and Mitigation of Climate Change was launched for the Ministry of Environment early in 2019.

Among other activities, RSS Audit, Risk and Quality Assurance Department provided the following services to the military: GAP Analysis for Military Quality Control Labs; Demilitarization Centre; Military Labs for Quality Control (MLQC); and Food Lab staff of Military Quality Control Labs.

RSS was awarded one of just 11 places on the IAP for Science committee, in recognition of



its contributions to global science engagement, such as organising and hosting World Science Forum 2017. RSS also currently holds a seat on the executive committee of IAP for Policy.

### Tianjin Institute of Industrial Biotechnology (TIB), China

Some research and development activities that took place at TIB during 2019 include:

- New pathway of chemical APIs' biosynthesis with high efficiency and low cost;
- Efficient biosynthesis technology of rare sugars with a green, efficient, controllable, low-cost biological manufacturing model;
- A green bioprocess technology to produce rare sugars, such as allulose, tagatose and mannose from starch by in-vitro multienzyme molecular machine;
- Biosynthesis pathway in microorganisms by metabolic engineering and synthetic biology;
- Synthetic route of asiatic acid was built for the first time in the world;
- The microbial cell factories for salidroside, gastrodin, breviscapine were further optimized with the highest fermentation level, significantly reducing costs compared to plant extraction.

Two major events of TIB were: International Training Course on Industrial Synthetic Biotechnology faced to the Belt and Road countries (October 14 to November 2); and Metabolic Engineering Summit (MES 2019) (October 20 to October 22).

The second meeting of TIB's International Scientific Advisory Board was successfully held with participation of 5 International outstanding scholars including the Nobel Prize owner of 2018 in chemistry, Prof. Frances H. Arnold.

A COMSATS' joint center within the scope of the National Center will be established to provide more resources for student and expert exchange and facilitate joint projects among the COMSATS' member states.

In 2019, TIB continued close collaborations with COMSATS Centers of Excellence and other organizations, which resulted in the following:

- Cooperation with BCSIR, Bangladesh, NRC, Egypt, and ITI, Sri Lanka, on genomics and computational biology, biotech for green textile industry and plant natural products, respectively; MoU with ICCBS under Belt and Road Science, Technology and Innovation Cooperation



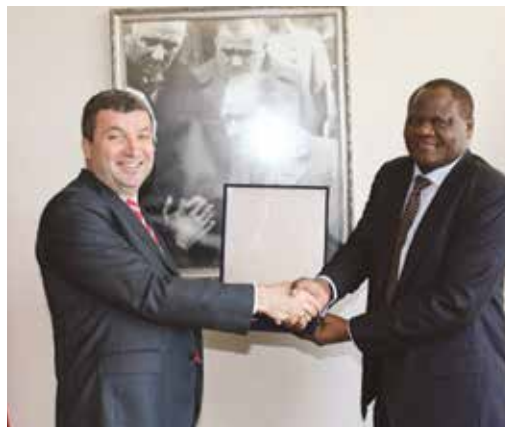
- Program of Tianjin municipality;
- Agreement with COMSATS University Islamabad for the possibility of collaboration in personnel exchange, joint research projects, and joint conferences/seminars.
- Discussion on cooperation with the University of Medical Sciences of Pakistan, in the fields of biodegradable plastics, herbal medicines and pharmaceuticals.
- Agreement with the Al-Farabi Kazakh National University for the collaboration in Biotechnology, Biology and Computer Science.
- Possible cooperation with the Ministry of the Health & Population Welfare Department, Government of Sindh, Pakistan, on R&D for manufacturing biodegradable plastic bags;
- MoU signed with VIB, Belgium, an advanced life science research organization;
- 43 cooperative projects with enterprises, with the contract turnover of 480 million RMB.

During 2019, TIB enrolled 3 students from the developing countries; a masters' candidate from Pakistan, and 2 PhD candidates from Nigeria and Pakistan; as well as a Postdoctoral student from Pakistan.

Nationally, TIB ranks in top 10 among the 104 CAS institutes judged on the basis of technology-transfer. During the reporting period, TIB got 5 S&T awards at the provincial and ministerial-level.

### **Tanzania Industrial Research and Development Organization (TIRDO), Tanzania**

TIRDO signed an MoU with Tanzania Agricultural Development Bank Ltd (TADB) for cooperation in building technical capacity of farmers' groups and agro-processors.



Both sides will also facilitate development of a knowledge database and network with adequate agro-industrial information to facilitate informed decision-making at the policy and implementation levels.

The Organization acquired unique coal quality assessment equipment backed by a team of competent staff. The equipment allows the undertaking of proximate and ultimate analysis of carbonaceous energy materials like coal. Tests conducted at TIRDO coal laboratories along with applicable standards include proximate analysis for Moisture (ASTM D3173), Fixed Carbon (ASTM D5142), Calorific Value (ASTM D5865) and ASH (ASTM D2795).

TIRDO has now embarked on developing coal utilization technologies. Coal briquettes are being developed for use in households and industries. The special interest is to replace wood-based fuel in household cooking.

### **The Scientific and Technological Research Council of Turkey (TUBITAK), Turkey**

TUBITAK MAM established and fostered collaborations from Rwanda, Sudan, KSA, China and institutions from Turkey.



The possibility of technology-transfer is being explored with Rwandan Military Delegation that attended an event in Ankara. As a result of a senior government delegation of Sudan to TUBITAK MAM, an MoU was signed between TUBITAK MAM and Sudan, in the fields of agricultural technologies, digital transformation, renewable energy, nanotechnology and software development.

TUBITAK MAM Energy Institute and Saudi Arabia's King Abdulaziz City for Science and Technology (KACST) signed contracts on "Technology Collaboration Project for Developing a 7-Feeder Power Quality Analyzer – KACST PQ2" and "Technology Collaboration Project for Developing Solar Central Inverter". Visit of officials from Jiangsu Industrial Technology Research Institute (JITRI) and Jiangsu Province Department of Science and Technology (JSTD) in June 2019 paved way for scientific and technological cooperation between China and Turkey.

Institutes at TUBITAK have developed the following solutions over the year 2019.

- National Noise Barrier Systems, under which Environmental Noise Management studies and status analyses have been conducted for Turkish provinces. Consultations continued

with the headquarters of the Ministry of Environment and Urban Planning High Technics Board in this regard.

- Genetic Engineering and Biotechnology Institute of TUBITAK MAM and the Turkish Ministry of Agriculture and Forestry developed "AFLAMAM Immuno-Affinity Columns for Aflatoxin Analyses" from natural resources.
- TUBITAK MAM's Materials Institute Underwater Acoustic Laboratory (SAL) manufactured Turkey's first Active Sonar System for submarines (composed of transducers, power and electronic units) for the first time in Turkey. The integration and acceptance procedures of the Sonar System have been completed on two submarines and the systems have been commissioned.

Capacity-building activities and project meetings held during 2019 at TUBITAK included:

- Workshop on Tools and Indicators to Assess Black Sea's Environmental Status (June 2019);
- Turkey's Chemical Industry R&D Needs Workshop (June 2019);
- Pharmacology Meeting to facilitate exchange of foresights on innovations in pharmaceutical sciences;





- Turkey's Chemical Industry R&D Needs Workshop (June 2019); and
- Workshop on cooperation between TÜBİTAK-MAM and SAHA İstanbul (December 2019) Meeting of ERNETMED Project (November 2019).

Production Institute launched BS Standard Tests on “Non-metallic” and “Stainless Steel” Products. The standard test for non-metallic products relate to evaluation and reporting of suitability of non-metallic materials and products for use in contact with water intended for human consumption.

TÜBİTAK MAM's Environment and Cleaner



## INTERNATIONAL VISITS OF SECRETARIAT OFFICIALS

*Officials of COMSATS Secretariat undertake international visits to strengthen and expand the membership of COMSATS and its Network of S&T Centres of Excellence, participate in international meetings and develop partnerships and cooperative mechanisms with relevant institutions in different countries.*



### Ghana

Over the calendar year 2019, three visits to Ghana were made in January, September and October, to seek the Chairperson's guidance, facilitate relevant decision making and necessary actions from his office.

In January 2019, a delegation led by the Executive Director COMSATS, Dr. S. M. Junaid Zaidi, visited the Republic of Ghana. The main aim of this visit was to seek guidance of the Honorable Nana Addo Dankwa Akufo-Addo (President of Ghana and incumbent Chairperson of COMSATS) for COMSATS' programmes in his capacity as Co-chair of Sustainable Development Goals (SDGs) Advocates. Dr. Zaidi was accompanied by Prof. Dr. Ashraf Shaalan, Advisor to the President of National Research Centre (NRC), Egypt, and Chairperson of COMSATS Coordinating Council; Prof. Dr. Orkun Hasekioglu, Executive Vice President, Scientific and Technological

Research Council of Turkey (TUBİTAK), Turkey; Ambassador (R) Shahid Kamal, Advisor, COMSATS Secretariat; and Mr. Nisar Ahmad, Deputy Director (Systems), COMSATS Secretariat, Islamabad. Dr. Zaidi made a presentation highlighting COMSATS' ongoing programmes and future aspirations having a bearing on the socio-economic uplift of the developing countries. In connection with His Excellency's vision for Ghana's progress and development, Dr. Zaidi offered COMSATS' platform for initiating specific projects in Ghana in accordance with the country's needs and priorities. The President was also briefed on COMSATS' Centre for Climate & Sustainability (CCCS). After discussion on these and other matters, H.E. Akufo-Addo showed appreciation for COMSATS' undertakings and achievements and reiterated his commitment towards strengthening scientific cooperation among developing countries.





On January 8, 2019, COMSATS' delegation called upon H.E. Prof. Dr. Kwabena Frimpong Boateng, Minister for Environment, Science, Technology and Innovation (MESTI) at his office in Accra Ghana. Matters discussed during the meeting, also attended by senior officials from Ghanaian government and Council for Scientific and Industrial Research (CSIR), COMSATS Centre of Excellence in Ghana, included: Meeting with the Hon. President of Ghana; COMSATS' current and future proposed activities; MESTI's participation in COMSATS' programmes; Nomination of Mr. Oliver Boachie (Special Advisor to the Minister) as COMSATS' Focal person for COMSATS at MESTI; Participation of CSIR in Coordinating Council; and Setting up an institution in Ghana. The Honourable Minister pledged his Ministry's support towards COMSATS' programmes.

On January 08, 2019, the COMSATS' delegation met with Dr. Eugene Owusu, Special Advisor to the President on the Sustainable Development Goals (SDGs). Among other points of discussions, it was emphasized that participation of Ghana in the COMSATS' Centre for Climate & Sustainability would be a valuable source of strength for COMSATS.

On January 9, 2019, COMSATS' delegation

attended an interactive session at CSIR. During the session, a comprehensive presentation was made by Dr. Agyeman Victor, Director General CSIR, about the functions and activities of the Institute and its R&D organizations. Later, in a meeting with Dr. Victor, following matters were discussed: Nomination of COMSATS' Focal Person at CSIR; CSIR's participation in the forthcoming meeting of COMSATS Coordinating Council; and Prospects of future collaboration. Mr. Surv Daniel Asenso-Gyambibi, Director, Building and Road Research Institute (BRRI) of CSIR was nominated as the new Liaison Officer for COMSATS at CSIR.

A meeting was also held with Prof. S. Kwame Offei, Pro-Vice Chancellor of the University, during the January 2019 visit.

## September 2019

Later in September, Dr. S. M. Junaid Zaidi visited Accra to make consultations and seek guidance from the Chairperson and other Ghanaian Government officials with regard to organizational matters of 4th General Meeting and Accra Forum. During the meeting with the Chairperson, the Executive Director informed him of COMSATS' activities since the January meeting, especially with regard to the General Meeting and Accra Forum, and the efforts

being made to enhance the Membership of the Commission. The Executive Director delineated on the concept of Accra Forum that had developed since the last meeting. Further dynamics and format of the General Meeting and Accra Forum, as well as the budget and other administrative arrangements for the meetings were also discussed. Dr. Zaidi presented relevant documents for further action.

### October-November 2019

A two-member delegation of COMSATS, comprising Mr. Nisar Ahmad, Deputy Director (Systems) and Mr. Farhan Ansari, Sr. Assistant Director (Programmes), visited Accra, Ghana, in connection with preparations for the 4th General Meeting of COMSATS and Accra Forum on Science and Technology for Sustainable Development. During the visit, Ghanaian officials were consulted on the organization of the two events, which were inevitably postponed. The decision was formalized in a meeting of the Sub-Committee of Planning constituted by MESTI for organizing the events. Availing the opportunity, the delegation also held a meeting with Maj. Gen. (R) Waqar Ahmed Kingravi, High Commissioner of Pakistan in Nigeria (concurrently accredited to Ghana)

and briefed him about the status of preparation for the afore-mentioned meetings. Moreover, on special invitation from Dr. Eugene Owusu, Special Advisor to the President of Ghana on the SDGs, COMSATS' delegation participated in the launch of Global Sustainable Development Report 2019, entitled "The Future is Now: Science for Achieving Sustainable Development" held on 31st October 2019, at the United Nations Information Centre, Accra, Ghana.

### Sri Lanka

During the reporting period, two visits to Sri Lanka were undertaken. The February visit especially focused on sensitization and strengthening cooperation with Sri Lanka institutions, including COMSATS' Focal Point, the Ministry of Science, Technology and Research (MoSTR), and Centre of Excellence in the country, Industrial Technology Institute (ITI), while the December visit also included participation in ITI's biennial congress, among other activities.

Dr. S. M. Junaid Zaidi, Executive Director COMSATS, accompanied by Mr. Farhan Ansari, Sr. Assistant Director (Programmes), visited Sri Lanka from 24th to 26th February





2019. A meeting with His Excellency Sujeewa Senasinghe, Federal Minister for MoSTR was held on 25th February 2019. The Minister was appreciative of COMSATS' programmes and expressed keen interest in establishing working relations with the Organization. Dr. Zaidi endorsed the Minister's proposal for the establishment of Science and Technology University in Sri Lanka and affirmed COMSATS' support towards this project.

Later a meeting was held with Mr. Amal Dias, Chairman, ITI, to explore possibilities for enhancing participation of ITI in COMSATS' scientific programmes. A visit to research facilities of ITI presented to COMSATS' delegation the potential that the Institute offers for cooperation. Also during the visit, a meeting was held with Pakistani High Commissioner in Colombo, H.E. Maj. Gen. (R) Shahid Hashmat. During a visit to Sri Lanka Institute of Nanotechnology (SLINTEC), possibilities were explored for initiating trilateral projects in medicine involving SLINTEC and two of COMSATS' Centres of Excellence in Pakistan, CUI and ICCBS.

Visiting Sri Lanka for participation in ITI's biennial Research Symposium held in Colombo in December 2019, COMSATS' delegation met Hon. Thilanga Sumathipala, State Minister of Technology & Innovation. The Executive Director informed him about collaboration between COMSATS and Sri Lanka, and the former's various projects including COMSATS University Islamabad. The State Minister appreciated the programmes and activities of COMSATS and its contributions towards socioeconomic development of the member countries. Speaking during the meeting, the Pakistani High Commissioner in Sri Lanka assured his full support for facilitating collaborations between COMSATS and the government of Sri Lanka.



## China

Engagements in China pertained to the 22nd Coordinating Council Meeting hosted by one of COMSATS' Centres of Excellence in China, the Tianjin Institute of Industrial Biotechnology (April 2019) and sideline meetings, as well as participation in joint capacity-building event (July 2019).

On the sidelines of the 22nd Meeting of COMSATS Coordinating Council (Chapter 1), a delegation of COMSATS Secretariat and COMSATS University Islamabad (CUI) visited the Tianjin University of Science and Technology (TUST) and Embassy of Pakistan in Beijing, China. After reciprocal briefings, possibilities of cooperation in areas of mutual interest were discussed, including initiating faculty/ student exchange between TUST and COMSATS Centres of Excellence, and cooperation and support under BRI. On 19th April 2019, the delegates also met with H.E. Mr. Masood Khalid, Ambassador of Pakistan to China, to seek Embassy's support towards COMSATS' collaborative activities with China.

From July 14 to 18, 2019, a two-member delegation of COMSATS comprising of Mr.



Tajammul Hussain, Advisor (Programmes), and Gen (R) Muhammad Tahir, Advisor (China Desk), visited China to attend two international scientific events on atmospheric aerosol and climate change, organized by ICCES, China. They also held meetings to help reinforce ongoing collaboration with COMSATS' focal point and Centres of Excellence in China. They met the senior officials of the Bureau of International Cooperation – Chinese Academy of Sciences (CAS), and the International Centre for Climate and Environment Sciences (ICCES), China. Discussions were made on bilateral international programmes tailored to meet the scientific needs of COMSATS' member states. Other points of discussion included:

- Replication of China-Pakistan Science Center (ESC) in other member states of COMSATS;
- CUI's collaboration with the University of Chinese Academy of Sciences (UCAS) and University of Science and Technology of China (USTC) for short-term visits, mutual exchanges and various collaborative programmes;
- COMSATS' member states and Centres of Excellence participation in CAS President's International Fellowship Initiative (PIFI)

and ANSO fellowship and scholarship program.

## Colombia

A delegation of COMSATS Secretariat, led by Ambassador (R) Fauzia Nasreen, Advisor (SDGs), visited Bogota, Colombia, from 1st to 6th September 2019. The delegation comprised of Ms. Huma Balouch (Senior Assistant Director Programmes) and Mr. Laeeq Hassan Jaswal (Manager Strategic Partnerships). Former Chairperson COMSATS Coordinating Council, Dr. Eduardo Posada who is the director of COMSATS Centre of Excellence in Colombia, International Centre of Physics (CIF), facilitated the delegation for most of their engagements within Colombia, which included the following meetings.

During a meeting with her, Ms. Maria Piedad Villaveces, Executive Director of Colombian Association for the Advancement of Science (CAAS) showed great interest in replicating COMSATS University Islamabad (CUI) model in Colombia.

A meeting with Dr. Enrique Ferero, President Colombian Academy of EXACT, Physical and Natural Sciences, resulted in identification



of following areas for bilateral cooperation: telehealth, climate education and curricula development. Dr. Ferero also offered his support for setting-up of COMSATS' Regional Office in Bogota.

COMSATS' officials also visited Focal Point in Colombia, COLCIENCIAS and met Ms. Sonia Esperanza Monroy and other members of COLCIENCIAS' international office. It was communicated that under Colombia's Development Plan (2018-2022) COLCIENCIAS is being upgraded to Ministry (to be renamed as MINCIENCIAS).

Discussions on matters of mutual interest were made with Dr. Luz Teresa Gomez (Vice Rector of Research) and Prof. Melba Libua Cardenas (Director of Office of External Affairs) at National University of Colombia.

## Tunisia

A two-member delegation of COMSATS visited Tunisia in connection with the International Workshop on "Agriculture, Food Security and Biotechnology: Role of ICTs", held from 4th to 6th November 2019. The delegation comprised of Mr. Tajammul Hussain, Advisor Programmes, and Mr. Babar Sultan, Protocol Officer. On the sidelines of the event, the delegation held important meetings.

Meeting Prof. Hedi Bel Hadj Salah, President of the University of Monastir, COMSATS' officials invited him to visit COMSATS Secretariat, COMSATS University Islamabad (CUI) as well as other renowned universities/institutions of Pakistan and other COMSATS' member states in order to explore opportunities of cooperation in the areas of mutual interest.

H.E. Mr. Muhammad Hassan, Ambassador of Pakistan, was met in his office. Pleased to learn

about COMSATS' activities, His Excellency highlighted some key areas, including ICTs, Biotechnology, Nanotechnology, and Artificial Intelligence, in which Tunisia and other member countries of COMSATS could further collaborate. He also proposed jointly establishing a technology park in Tunisia. Later during the day, COMSATS' officials visited CERTE and met with its Director General, Prof. Ahmed Ghrabi. Discussions with Prof. Ghrabi touched upon creating a Network of institutions working in the field of water resources; joint capacity-building events with other members of COMSATS' Network; and Tunisia availing scholarships offered by other COMSATS' Centres of Excellence.

## Hungary

A two-member delegation of COMSATS comprising of Engr. Qaiser Nawab, Assistant Director, Programmes, and Engr. Fiaz-ur-Rehman Khattak, Senior Web Developer, participated in the World Science Forum (WSF) 2019, held at Budapest, Hungary, from 20th to 23rd November 2019. This year's forum themed "Science, Ethics and Responsibility" was organized in collaboration with WSF partner organizations, including International Science Council (ISC), Inter-Academy Partnership (IAP), European Academies Science Advisory Council (EASAC), American Association for the Advancement of Science (AAAS), the World Academy of Sciences (TWAS), and the United Nations Educational Scientific and Cultural Organization (UNESCO). With over 1100 participants, the 50 sessions of the four-day event covered various topics ranging from education, research, water science, food systems to leadership, democracy, Science Communication, and Science Diplomacy.



## SPECIAL ASSIGNMENTS

COMSATS undertakes special assignments, such as conducting scientific studies, undertaking pilot projects, or implementing educational programmes. Other than CUI, two COMSATS flagship projects, COMSATS Internet Services and COMSATS Telehealth, continue their operations and are being overseen by COMSATS Secretariat. The administration related to graduate students from Member States studying at CUI is also a special assignment of the Secretariat. Some of these foreign students after thorough evaluation were engaged to facilitate in COMSATS' operations.



### COMSATS Telehealth (CTH)

In 2019, COMSATS Telehealth remained committed to transforming healthcare, specifically by improving access to care and making it work better through Telemedicine. COMSATS Telehealth has successfully managed to sustain the Telehealth service by utilizing its own resources with providing benefits to a large number of patients, especially women.

#### Access to Care

CTH provided medical opinions and checkups to patients in five rural Telehealth clinics. Two new rural Telehealth Clinics were established: BHU Pind Sawika in Jhelum District (inaugurated by H.E. Mr. Fawad Chaudhry, Federal Minister for Science and Technology, Government of Pakistan on 26th August 2019) and one established by Baluchistan Research and Development Foundation (BRDF)/Dr Najma Ghaffar Hospital (DNGH) in Jhal

Magsi. Around 3,000 patient consulted doctors through COMSATS Telemedicine in the year 2019. Three clinics in Quetta, Gawadar and Jhelum are currently serving all female outpatient teleconsultation needs through female physicians at Telehealth Centre in CIS Islamabad, while in other two clinics at Gokina and Jhal Magsi both male and female patients benefitted from the service.

#### Learning and Professional Development

Under the Memorandum of Understanding signed in November 2018, COMSATS and Pakistan Allergy Asthma and Immunology Society (PAAIS) conducted an online training in the basic knowledge of diagnosis and treatment of allergic diseases. The training comprised of series of five sessions that started on 17th January 2019. Participants from a total of 13 Telehealth clinics, including COMSATS' BHU Telehealth clinics in Gawadar, Quetta, Mardan, Mansehra, Sawabi and Gokina; Dr Najma Ghaffar Hospital Telehealth clinics





in Quetta and Jhal Magsi and the Health Centres of Human Development Foundation in Mardan, Islamabad, Zhob and Tando Adam Khan connected online through COMSATS Telehealth platform for the online workshop.

Dr. Azeema Fareed, Principal Medical Officer and CTH focal person at COMSATS Secretariat, participated as an invited speaker in the “National Stakeholder Workshop on Developing a National Digital Health Strategy”, held from 26th – 27th September 2019, in Islamabad.

With a purpose of creating awareness and interest in telehealth to address the dearth of relevant HR, CTH also hosted two study tours of the MS Health informatics students from the COMSATS University Islamabad. Groups of more than 10 students visited the Telehealth Centre in May and November 2019.

### Health Camp

CTH organized an online medical camp in collaboration with Fauji Fertilizer Company (FFC) and Global Institute for Healthcare Quality (GIHQ) in Ahmadpur Lumma, a town near Rahim Yar Khan District of Pakistan.

Types of cases presented in the medical camp	
Illness	Percentages
Nutritional deficiency	40%
Worm infestation	2%
Derma Cases	5%
Urological Cases	4%
Chronic Liver Diseases	2%
Respiratory Problems	18%
Gynae & Obs Cases	3%
Hypertension Issues	10%
Diabetes Mellitus	8%
Constipation	3%
Arthritis	5%

The medical camp was organized as part of COMSATS’ Silver Jubilee celebrations, on 9th and 10th December 2019. The two-day camp served around two hundred patients from the area seeking medical attention for variety of ailments, including respiratory infections, skin problems, joint pains, hypertension and diabetes.

### COMSATS Internet Services (CIS)

Established in 1996, COMSATS Internet Services (CIS) is the pioneer Internet Service Provider (ISP) of Pakistan. CIS’ affairs are managed by a Board of Management (BoM) headed by Dr. S.M. Junaid Zaidi, Executive Director COMSATS. The managerial team is currently working under the guidance of Mr. Nasir Jamal Khan, Chief Operating Officer.

CIS has nine core services known as ‘The Colors of CIS’. This includes TornadoR (Wireless broadband), Hawaii™ (Domain, hosting, and VPS) and COMSpeed™ (Optical Fiber Connectivity). CIS’ value added services include Hurricane™ (On-demand broadband), Prism™ (Website development), Viacon™ (Video conferencing), COM meeting™ (web Conferencing Service) and COMSATS Innovation, IOT. CIS ComClinic™ is a brand name, under which CIS delivers Telehealth service to the people living in underdeveloped and far flung areas of Pakistan. All these processes and procedures are ISO9001:2008 certified.

CIS has well-equipped data centers in Islamabad, Lahore, Faisalabad & Karachi that offer variety of services, including Virtual Private Servers, Domain Registration, Website Hosting, Co-location of Server’s and Rack’s space to customers.

Websites were developed and maintained for many prominent Pakistani organizations and institutions, including Pakistan army, Pakistan



navy, Nova Technologies, Universal Service Fund. Many useful software applications were developed in Java and .Net that can be used by customers in the billing system, helpdesk system and purchasing management system.

CIS Internet of Things has introduced SMART 'One Click' use of Renewable Energy and developed Net Metering solutions with real-time reports. Other IoT applications by CIS pertain to: Soil Moisture Detection for Agriculture and Horticulture; Surveillance System development.

Technical trainings have been imparted to more than 2000 IT professionals and students over the last twenty-three years. These training courses include conferences CCNA, CCNP, Microsoft Office, Linux Administration, Window TM Administration, ONO recording Hardware, ITIL TM V3 Foundation, PMP TM, Web Development, Java Development and .Net Development.

CIS' bandwidth grew from 3.5 GBPS in 2018 to more than 5 GBPS in 2019. CIS has established two new nodes in Bahawalpur & Abbottabad, and several new PoPs.

During 2019, CIS participated in various capacities in events pertaining to Education, Marketing, Business, Industry, and IT.

## COMSATS Science Diplomacy

While COMSATS' all major operations and activities pertain to Science Diplomacy, some specific activities during the reporting period are as follows.

### Cooperation with Pakistan's Foreign Office's Science Diplomacy Wing

Under a cooperative arrangement recently forged between COMSATS and the Science Diplomacy wing of the Pakistani Ministry of Foreign Affairs, the two organizations are planning to co-organize a Science Exhibition in collaboration with relevant partners and institutions in Pakistan, including the Higher Education Institution of Pakistan and COMSATS University Islamabad.

### Seminar on Science Diplomacy

COMSATS in collaboration with the OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH), Science Diplomacy Division of the Ministry of Foreign Affairs (MoFA), and Pakistan Academy of Sciences (PAS), organized a Seminar on Science Diplomacy at COMSTECH Secretariat Islamabad, on 27th November 2019. The Seminar attracted members of the diplomatic community, civil society, public and private sector organizations, think tanks and academia.

### Participation in 3rd Meeting of the FPCCI Bioeconomy Committee held on 27 July 2019

The Executive Director COMSATS, and Ambassador Fauzia Nasreen, Advisor (SDGs) participated in 3rd Meeting of the Federation of Pakistan Chambers of Commerce and Industry's Bioeconomy Committee held in Islamabad on 27 July 2019. They highlighted the need for linkages between universities and industry/business community to spur green



economic growth and cutting edge technology for enhancing the potential of the private sector which the business community was best placed to acquire. The nexus between energy, environment, food security and health was also underscored.

Other undertakings included:

- Talk on “Air Pollution in Pakistan” in Commemoration of the Earth Day 2019 (22nd April 2019)
- Talk on South-South Cooperation Day and Bilateral cooperation between Pakistani and Chinese Institutions (12th September 2019)
- Talk on Denmark’s Green Transition and Sustainable Practices (25th September 2019)

## Scholarships and Sponsorships

COMSATS University Islamabad (CUI), Pakistan, has a long standing offer of 100 postgraduate scholarships, with complete fee waiver, lately.

Twelve students are availing these scholarships and are enrolled in MS and PhD programmes. Five CUI-ICTP post-graduate scholarships (Masters of Science in Mathematics) have also been offered to the students belonging

to COMSATS’ member countries. Four nominations from Nigeria and Tanzania are under review. A student from Pakistan is availing this opportunity, while two more candidates belonging to Syria and Iran have been accepted for three of the five post-graduate scholarships at Al-Farabi KazNU.

A Nigerian researcher is availing the one postdoctoral fellowship offered by the Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh. NRC, Egypt, and ICCBS, Pakistan, are offering 05 short-term (1-2 months) postdoctoral fellowships and five (05) scholarships annually for member states.

Moreover, sponsorships amounting to US\$ 31500 for a number of different activities were given to beneficiaries from China, Ghana, Iran, Jamaica, Kazakhstan, Palestine, Pakistan, Nigeria, Sri Lanka, and Sudan.

## Foreign Interns

Started in 2017, the Foreign Interns programme of COMSATS concluded at the end of the calendar year 2019. PhD students from Cameroon, Ethiopia, Nepal, and Nigeria had been engaged for a number of activities aiding COMSATS Secretariat operations during this time. The last batch of these interns was bid farewell on 31st December 2019.



## PUBLICATIONS AND INFORMATION DISSEMINATION

*Information dissemination is done through a bimonthly Newsletter, COMSATS' official website and other publications, apart from other promotional material. From time to time, COMSATS also collaborates with different institutions to bring out joint publications. Dissemination of important information through electronic and social media aides this activity throughout the year.*



During 2019, the 11th Volume of COMSATS Newsletter was successfully completed and 5 issues of the 10th volume were brought out, thus completing 65 issues of this important information dissemination tool.

The standard sections covering the activities of COMSATS Secretariat and Centres of Excellence covered major news and developments. 'Special Section' part covered 22nd Coordinating Council Meeting; and international events on various aspects of SDGs and ICTs.

Articles with themes Special Economic Zones; Digital Health; Bioeconomy; Science Diplomacy served as means to disseminate important information on these topics. Further devoted sections on scientific breakthroughs and S&T and development related news from Member States helped create awareness on potential of science for socio-economic development.

The Newsletter is widely distributed to all the

member countries, COMSATS' Centres of Excellence and other related organizations. Present and past issues of COMSATS Newsletter are available for viewing and downloading at the following URL: [http://comsats.org/?page\\_id=150](http://comsats.org/?page_id=150).

Some important publications brought out during the year included:

- COMSATS Work on Sustainable Development Goals (October 2019) ([http://comsats.org/wp-content/uploads/2020/02/COMSATS-Work-on-SDGs\\_Booklet\\_October2019.pdf](http://comsats.org/wp-content/uploads/2020/02/COMSATS-Work-on-SDGs_Booklet_October2019.pdf))
- Telehealth Flyer ([http://comsats.org/wpcontent/uploads/2020/02/TeleHealth\\_Flyer.pdf](http://comsats.org/wpcontent/uploads/2020/02/TeleHealth_Flyer.pdf))
- Summary of COMSATS Activities (1994-2019)
- COMSATS Centre for Climate and Sustainability - Brochure ([http://comsats.org/wp-content/uploads/2019/07/Flyer\\_CCCS.pdf](http://comsats.org/wp-content/uploads/2019/07/Flyer_CCCS.pdf))
- Accra Forum Flyer





- Profiles of COMSATS' Network of International S&T Centres of Excellence (January 2019) ([http://comsats.org/Publications/Profile\\_of\\_COEs\\_January\\_2019.pdf](http://comsats.org/Publications/Profile_of_COEs_January_2019.pdf).)

The official website of COMSATS was kept updated with information on various undertakings and related aspects of the organization. The information made available on the website included: announcements, news and reports of all major happenings of the organization; new and updated information material; and updated contact information of members of major organs of COMSATS.

As part of its advocacy of science and relevant issues, COMSATS engages with the local print media by means of important messages and information on the organization. Three major events of this sort had the participation of COMSATS: 70th Anniversary of People's Republic of China (October 01), World Science Day (November 10) and 144th birth Anniversary of Quaid-e-Azam (December 25).

A special supplement was also issued on 25th Anniversary of COMSATS highlighting organization's major achievements, scientific programmes in the developing region as well as international outreach. COMSATS also published over 20 articles in local journals featuring its various projects and initiatives and highlighting the impact and implications of development-related issues in the Global South. Furthermore, around 10 special articles were published in newspapers as part of COMSATS Silver Jubilee celebrations.

COMSATS' official Twitter ([twitter.com/COMSATS\\_en](https://twitter.com/COMSATS_en)) and Facebook pages (<https://www.facebook.com/COMSATSoofficial/>) highlighted recent developments, scientific breakthroughs, success stories and best practices for achieving sustainability by all means. During the calendar year 2019, the number of followers on COMSATS' Twitter and Facebook pages increased by 23 and 10 percent, respectively. Additionally, modalities are being worked out to launch the official Instagram page of the Organization in the upcoming year.



## FINANCIAL AFFAIRS

*The major source of financing operations of COMSATS Secretariat is annual contribution of the Government of Pakistan towards running cost of COMSATS Secretariat. The other member states of COMSATS pay Annual Membership Contribution (AMC) towards COMSATS on voluntary basis. The AMC received from member states is kept as 'Trust Money' and is spent on activities related to the respective country. In order to have a regular source of financing technical programmes, COMSATS Secretariat created an Endowment Fund of US\$ 10.00 million in the 2nd General Meeting of COMSATS, held on 16-17 April 2012 in Islamabad, Pakistan.*

The Government of Pakistan, being the host country, funds the running costs of COMSATS Secretariat. The Government of Pakistan also pays an Annual Membership Contribution (AMC) towards COMSATS. During the financial year 2019, the Government of Pakistan paid Rs. 40.00 million towards running costs of COMSATS Secretariat and US\$ 20,000/- as Annual Membership Contribution (AMC).

During the reporting period, COMSATS received Annual Membership Contributions (AMC) from five (05) member states as shown in the table.

Since creation of COMSATS' Endowment Fund during the 2nd General Meeting of COMSATS held on 16-17 April 2012 in Islamabad, Pakistan, the Government of Pakistan has issued US\$ 0.1 million equivalent to PKR 10 million out of the total commitment of US\$ one million (PKR 100.00 million). The contributions received so far have been invested in the National Bank of Pakistan and total current worth of the fund is Rs. 15.016

Country Name	Contribution for the period (s)	Amount (US\$)
China	2019-20	50,540
Jamaica	2017-18, 2018-19 & 2019-20	60,000
Nigeria	2017-18 & 2018-19	40,000
Pakistan	2018-19	20,000
Sri Lanka	2018-19	20,000
<b>Total</b>		<b>190,540</b>

million, as on June 30, 2019.

The auditors' report for the financial year ended on June 30, 2018 was approved by the Coordinating Council of COMSATS in its 22nd meeting held on 16-17 April 2019, in Tianjin, China. The accounts for the financial year that ended on June 30, 2019, have been audited by M/s HLB IJAZ TABUSSUM & Co., Chartered Accountants.

# COMSATS

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### Successful





## COMSATS' Centres of Excellence



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