



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

## An Overview of COMSATS' Activities in 2017



Bangladesh



China



Colombia



Egypt



The Gambia



Ghana



Iran



Jamaica



Jordan



Kazakhstan



Korea DPR



Morocco



Nigeria



Pakistan



Palestine



Philippines



Senegal



Somalia



Sri Lanka



Sudan



Syria



Tanzania



Tunisia



Turkey



Uganda



Zimbabwe



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**(Excerpted from COMSATS’ Annual Report 2017)**



**Commission on Science and Technology for  
Sustainable Development in the South  
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## ACTIVITIES OF COMSATS' STATUTORY BODIES

*The Coordinating Council of COMSATS comprises the Heads of its 21 International S&T Centres of Excellence. The Council meets once annually to decide on matters relating to the membership of the Network, in consultation with the Consultative Committee. The Council also approves the programmes and budget of the COMSATS' Network, as well as makes rules for governing its own procedures.*



### 20<sup>th</sup> Meeting of COMSATS Coordinating Council (May 14-15, 2017, Cairo, Egypt)

COMSATS Coordinating Council held its 20<sup>th</sup> meeting on May 14-15, 2017 in Cairo, Egypt, which was hosted by COMSATS Centre of Excellence in the country National Research Centre (NRC). The Centre also holds the Chairpersonship of the Council, by virtue of which the Centre's President Prof. Dr. Ashraf Shaalan chaired the meeting. The two-day meeting had participation from 14 Centres of Excellence of COMSATS belonging to Bangladesh, China, Egypt, Ghana, Kazakhstan, Nigeria, Pakistan, Sri Lanka, Sudan, Senegal, Tanzania, Tunisia and Turkey. Officials from COMSATS Secretariat and officials of partner international organizations, UNESCO and TWAS also participated in the meeting.

The meeting was inaugurated on 14<sup>th</sup> May 2017 in a graceful ceremony by His Excellency Prof. Khaled Kassem, Senior Assistant Minister for Strategic Plans and Supporting Systems, Ministry of Higher Education and Scientific

Research, Arab Republic of Egypt.

The Council Meeting comprised three technical sessions spread over two days. The participants deliberated on a 13-point agenda.

#### Major Outcomes of the Council Meeting

Among the major outcomes of the meeting were:

- Induction of Al-Quds University, Palestine, in COMSATS' Network;
- Offers of technical cooperation and scholarships among Network members in a number of fields;
- Reconstitution of Technical Advisory Committee by induction of suitable members in TAC;
- Renewed commitment of the Council Members towards COMSATS' programmes and assurance of enhanced participation;
- Approval of financial matters and administrative actions.





## 2<sup>nd</sup> Meeting of COMSATS' Technical Advisory Committee (November 15, 2017, Trieste, Italy)

The Technical Advisory Committee deliberates on matters affecting technical programmes and international collaborations of COMSATS with a special focus on improving the efficacy of COMSATS' Network. COMSATS held the second meeting of its International Technical Advisory Committee on 15<sup>th</sup> November 2017, in Italy. The meeting was hosted by The World Academy of Sciences (TWAS).

The TAC members that attended the meeting were: Dr. Sabah AlMomin, Kuwait; Prof. Huadong Guo, China; Dr. Jalila Ben Salah Abbes, Tunisia; Prof. Dr. Yin Li, China; Prof. Sahalu B. Junaidu, Nigeria; and Prof. Dr. Amal AlAboudi, Jordan; while Dr. Richard Catlow, United Kingdom; and Prof. Dr. Sok Ching Cheong, Malaysia, participated through video-conferencing. The Committee members encouraged COMSATS Secretariat to facilitate the expansion of the Network through induction of renowned R&D Centres from the South and the North. TAC also advised COMSATS to facilitate upgradation of existing Centres of Excellence through financial and technical support. The members also encouraged COMSATS to initiate new programmes and projects, which are of significance in achieving the Sustainable Development Goals (SDGs), for

the benefit of the Member States.

## 41<sup>st</sup> Meeting of COMSATS Management Committee

The COMSATS Management Committee assists the Executive Director's Secretariat in implementation of policy decisions taken by the Coordinating Council and other organs of COMSATS; recommends programmes and budget of COMSATS; monitors financial activities of COMSATS; evaluates rules and regulations of COMSATS Secretariat; and deliberates upon other administrative issues. COMSATS Management Committee held its 41<sup>st</sup> meeting under the chairmanship of Executive Director COMSATS, Dr. S. M. Junaid Zaidi, on 2<sup>nd</sup> March 2017.

The three major agenda items of the meeting, which needed immediate attention of the members, were:

- defining proper structure of the organization;
- enhancement of annual budget; and
- induction of new staff members to strengthen the Secretariat.

A major decision of the Management Committee meeting was the unanimous nomination of four members of Board of Governors of CIIT for a term of 3 years.

## MAJOR SECRETARIAL ACTIVITIES

COMSATS Secretariat performs secretarial functions for both the Commission and the Network of Centres of Excellence. It is responsible for holding regular meetings of the statutory bodies and following up 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 and members of academia and scientific community across the world. Other core activities of the Secretariat relate to: pooling and managing financial resources; enhancing membership of COMSATS and its Network; and disseminating information to the stakeholders.



### Enhancement of Membership of COMSATS' Commission

- Turkey became 25<sup>th</sup> and Somalia became 26<sup>th</sup> Member State of COMSATS. By virtue of the state membership, both the countries will be represented at the Heads-of-State level Commission and the Ministerial level Consultative Committee of COMSATS.
- Efforts to realize Afghanistan, Argentina, Azerbaijan, Belarus, Bosnia Herzegovina, Brazil, Cuba, Indonesia, Iraq, Kenya, Malaysia, Maldives, Mauritius, Myanmar, Nepal, Oman, Qatar, Romania, South Africa, Tajikistan, Thailand, Turkmenistan, Uzbekistan, Vietnam, and Yemen's state membership continued during 2017.

### Enhancement of Membership of COMSATS' Network

- Al-Quds University, Palestine, became the 21<sup>st</sup> member of COMSATS Network of International S&T Centres of Excellence during the 20<sup>th</sup> Coordinating Council Meeting held in Cairo, Egypt. The Certificate of Membership was issued from COMSATS to University on 31<sup>st</sup> May 2017.
- As a result of COMSATS active follow-up through correspondence and interactions with focal points in these countries, Tianjin Institute of Industrial Biotechnology (TIB) from China, and National University of Science and Technology from Zimbabwe expressed their willingness to join COMSATS' Network of Centres of Excellence.







## Follow-up of the Decisions of the 20<sup>th</sup> Council Meeting

- The Coordinating Council advised COMSATS Secretariat to continue with the efforts for inducting more Centres of Excellence in order to expand and enhance the technical and scientific activities of COMSATS' Network. In this regard, the Mohammed V University (Morocco) was engaged. Moreover, the Tianjin Institute of Industrial Biotechnology (China) was nominated for induction in COMSATS' Network of Centers of Excellence.
- The Coordinating Council desired to activate and strengthen other organs of COMSATS, i.e., the Consultative Committee and Technical Advisory Committee by holding regular meetings to facilitate networking and collaboration among different Member States and Centres of Excellence. Accordingly, the 2<sup>nd</sup> meeting of TAC was held in Trieste, Italy, on 15<sup>th</sup> November 2017.
- The Council encouraged all Centres of Excellence to benefit from the scholarship/fellowship programmes of TWAS. In this regard, TWAS has been requested to provide relevant information and details for Ph.D scholarships/post-doctoral fellowships.
- As per the offer made by TWAS for COMSATS' Member States and Centres of Excellence to participate in training courses in Science-policy/diplomacy for scientists and diplomats, COMSATS Secretariat is encouraging Member Countries and Centres of Excellence to benefit from the offer.
- COMSATS Secretariat also invited the Member States and Centres of Excellence to benefit from the offers of scholarships made by the Centres of Excellence.
- An important outcome of the meeting was a consensus on regularly organizing workshops on repair and maintenance of scientific instruments to enhance Science and Technology capacity. The latest effort made in this regard was organization of National Training Workshop on Repair and Maintenance of Scientific Engineering Equipment on 2<sup>nd</sup>-6<sup>th</sup> October 2017 at KazNU, Almaty, Kazakhstan.

## Disbursement of Annual Membership Contribution (AMC)

- COMSATS pursued rigorously the matter of improving the inflows of Annual Membership Contribution. As a result the organization received grants from four member states including China, Pakistan, Kazakhstan and Sudan.

## ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

*A group of twenty-one R&D institutions from different developing countries, predominantly COMSATS' Member States, is affiliated with COMSATS to its Network of International S&T Centres of Excellence. The Network Members serve as COMSATS' technical resources for South-South cooperation in line with their mandates for programmes of scientific research and development.*



A glimpse of some activities of the Centres of Excellence is given below:

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

- KazNU held an online Conference on International Scientific Methodical, titled 'New trends in development of Arabic Studies'.
- The University signed a cooperation agreement with European Organization for Nuclear Research (CERN) on 13<sup>th</sup> September 2017.
- The Universities of Russia and Kazakhstan signed a treaty titled 'Green bridge through generations' on 9<sup>th</sup> November 2017.

### **Al-Quds University (AQU), Palestine**

- Al-Quds University, Palestine, joined

COMSATS Network of Centres of Excellence as its 21<sup>st</sup> member during the 20<sup>th</sup> Coordinating Council Meeting.

- The University in collaboration with eCampus University, Italy, co-organized the first international conference titled "Bridging the future: the Women's perspective" on 2<sup>nd</sup> December 2017 in Naples, Italy.

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

- During the reporting period, BCSIR published 121 research papers in different journals. Twenty one technologies for commercialization were developed and 11 patents obtained.
- Seventy two national and international seminars, symposia and conferences on





R&D were organized.

- The Council provided training to 423 professionals on different scientific equipment.
- In 2017, scientists of BCSIR supervised 182 M.Sc theses of students from different universities.
- Events held during 2017 include
  - Symposium on 'Environmental Chemistry for Securing Water Quality' (30<sup>th</sup> July 2017).
  - Exhibition on Science and Technology and a seminar on "Biomass for Greener World" (19<sup>th</sup> - 21<sup>st</sup> January 2017) was organized by Pulp and Paper Research Division of BCSIR Laboratories, Dhaka.

### COMSATS Institute of Information Technology (CIIT), Pakistan

- In 2017, a total of 127 research projects, 117 travel grant applications and 7 seminar/workshops were approved. Eleven US, one UK and four Pakistani patents filed and four patents (3 US and 1 Pakistani) accepted.
- Forty five international students (including 26 Ph.Ds, 10 Postdoctoral, 6 MS, 2 Undergraduate and 1 Senior Visiting Researcher) were enrolled.
- Important visitors were received from Thailand, Afghanistan, France, China, Australia, United Kingdom, Jordan, Japan,

Turkey, the Gambia, Somalia, Kingdom of Saudi Arabia, Yemen, and Pakistan. These included diplomats, ambassadors, academicians and other important personalities.

- Some events that took place at CIIT during the reporting period included:
  - International Seminar on 'Environmental and Climate Change' (May 9, 2017);
  - 10<sup>th</sup> Technomoot consisting of seminars, symposia, and exhibitions (May 9-10, 2017);
  - 9<sup>th</sup> South Asian International Conference on 'Today's vision, tomorrow's reality' (August 23- 25, 2017);
  - International conference on Environmentally Sustainable Development 2017 (August 26-27, 2017);
  - Sustainable Urban Development-SUD 2017 (October 25-26, 2017);
  - 15<sup>th</sup> Frontiers of Information Technology Conference (FIT-2017) (December 17-22, 2017).

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

- The Crops Research Institute (CRI) of the Council for Scientific and Industrial Research (CSIR) released four new yam varieties, namely Afaase Adepa, Afaase Hoodenfoo, Afaase Biri and Afaase





Soanyinto. The new varieties, which have been tried and evaluated for over 10 years, are said to be very nutritious, high yielding and pest resistant.

- Governing Council for Scientific and Industrial Research (CSIR), Accra, Ghana, was inaugurated on 18<sup>th</sup> July 2017.

## EMBRAPA Agrobiologia, Brazil

EMBRAPA Agrobiologia organized a number of capacity-building activities during the year 2017. These include:

- A field day on cowpea for the farmers of Paty do Alferes.
- EMBRAPA Academic Hackathon in Seropédica, Rio de Janeiro.
- 5<sup>th</sup> Global meeting of Alliance for Mountains at the United Nations Headquarters for Agriculture was held on 12<sup>th</sup> December 2017 in Rome. During the meeting, the Mountains 2018 was launched for protection of land.
- Two courses were conducted on collection and management of forest seeds in conservation units.

Some of the research activities carried out in the reporting period were:

- A study on the use of material as cheap as

cardboard to control weeds by crowning, pizza boxes were used for recovery of pastures.

- Development of bacterial inoculant that promotes biological, nitrogen fixation resulting increase in cowpea productivity by up to 33 percent.
- The EMBRAPA Agrobiologia's Johanna Döbereiner Biological Resource Center (CRB-JD) was inaugurated in Rio de Janeiro.
- A research group of EMBRAPA Agrobiologia on food security was founded.

During the reporting period researchers from Ghana visited EMBRAPA Agrobiologia, Brazil on November 27, 2017, to learn about the process of inoculant production and benefits of Rhizobium inoculant technology for small-holding vegetable farmers.

## Industrial Research and Consultancy Centre (IRCC), Sudan

- IRCC established and operationalized a Soybean Processing Pilot Plant at its premises. The plant is a part of a project 'Supporting Food and Nutrition Security in Sudan through Soybean'.
- A delegation from the UNIDO, Vienna, visited IRCC on 16<sup>th</sup> December 2017 in connection with R&D cooperation







in Cleaner Production in Sudan. The visit concluded with an Agreement on the Resource of Efficiency and Cleaner Production in the Republic of Sudan.

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

- The two major research sections of the ITI, Sri Lanka, Food Technology Section and Herbal Technology Section resumed their operation in January 2017.
- A joint research project with the Medical Faculty of University of Sri Jayawardanapura, Sri Lanka, on bioactivity studies of *Eclipta prostrata* and another project carrying out clinical trials on *Coccinia grandis* with Medical Faculty, University of Ruhuna, Sri Lanka, also commenced during the year.
- Project to develop a National Mercury Release Inventory for the industrial sector was also initiated during January 2017.
- ITI provided technical services during the reporting period pertaining to:
  - paper and printing ink used in text books,
  - rice samples to check toxicity,
  - analysis of pesticides residues, Sudan dyes, Histamine and antibiotic residues by GCMS-MS, and
  - noise, vibration, air and water quality.
- During 2017, ITI organized 9 and participated in 20 capacity-building activities.
- Two international collaborative research projects during the year were also initiated: A collaborative research with Korean Food Research Institute on Biological activity evaluation system assistant project for nutraceutical applications of Sri Lankan native plants; and An Indo – Sri Lanka Research Programme.
- Fourteen research articles were published.

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

- During 2017, Prof. Dr. M. Iqbal Choudhary, Director ICCBS, was appointed as a member of the National Commission for Science and Technology (NCST).
- The American Heart Association (AHA),





United States, awarded “Paul Dudley White International Science Team Award” to three ICCBS scientists for their poster presentation.

- Pakistan’s first Sino-Pakistan Ethnomedicine Research Center was inaugurated at ICCBS on 10<sup>th</sup> February 2017.
- A Research and Development Centre of the pharmaceutical company, The Searle Company Limited (TSCL) was inaugurated at ICCBS Technology Park and Technology Incubation Centre.
- ICCBS obtained following accreditations and certifications during the reporting period
  - ISO 17043:2010 Accreditation for IAC, ICCBS
  - ISO 9001:2015 Standard Certification
- The Centre inked a number of agreements of cooperation, with important institutions from China, Palestine, South Africa, and Pakistan.
- The capacity building events organized by ICCBS in 2017 include:
  - Three-day workshop on ‘Next Generation DNA Sequencing Data Analysis’ (March 27-29, 2017);
  - 6<sup>th</sup> International Symposium-cum-Training Course on Molecular Medicine and Drug Research (November, 6-9, 2017);

## International Centre for Climate and Environment Sciences (ICCES), China

- ICCES developed a CAS Earth system model and climate forecast system to help find solutions to climate and environmental challenges confronting developing countries.
- The Centre organized/co-organized and participated in various capacity-building activities. Covering a variety of topics including climate change, environmental challenges, oceanic and atmospheric administration, disaster prevention, and seasonal and decadal prediction.

South-South Cooperation was facilitated with visits to and from institutions from the South, which include: COMSATS Institute of Information Technology, Pakistan; Sri Lanka; Tajikistan Academy of Sciences, China; and International Centre of Physics (CIF), Colombia. Prof. Zhaohui Lin, Director of ICCES, visited the National Research Center (NRC), Egypt, from May 16-17, 2017 and signed a Memorandum of Understanding between ICCES and NRC.

- The Centre completed thirty-year numerical experiments on ensemble hind casting of IAP-AGCM 4.1, evaluated (Preliminary) the model’s forecasting ability of summer climate anomaly and days of extreme high

temperature in China.

- Headway was made improving real-time numerical climate prediction system and research on predictability and forecasting methodology.
- The Center also made progress on the development of ocean circulation and land surface models and developed a new module for plant establishment in the dynamic global vegetation IAP-DGVM,
- On May 16, 2017, World Meteorological Organization (WMO) awarded its 61<sup>st</sup> International Meteorological Prize (IMO) to Prof. Qing-Cun Zeng, founding director and member of ICCES of Sciences.
- The Institute of Atmospheric Physics, Chinese Academy of Sciences was given the lead of CAS' newly developed Earthlab.

### National Mathematical Centre (NMC), Nigeria

NMC organized a few capacity-building activities including:

- A competition for Mathematics students from Universities across the Nigeria (1<sup>st</sup> to 6<sup>th</sup> April 2017); and
- A three-day Conference of 'Mathematical Sciences Students Association' of Nigerian Tertiary Institutions (17<sup>th</sup>-21<sup>st</sup> April, 2017).

NMC initiated collaboration with Professor Nkechi Agwu, Carnegie and an African Diaspora Fellow on Ethno-Mathematics under a capacity building framework in Science, Technology, Engineering and Mathematics (STEM).

Prof. Dr. Moiz-ud-din Khan, Chairperson of the Department of Mathematics, COMSATS Institute of Information Technology (CIIT), Islamabad, Pakistan, was hosted during his three day visit to the Centre 11-13 September, 2017. It helped open avenues of collaboration between CIIT and NMC.

### National Research Centre (NRC), Egypt

- The researchers obtained a patent for the new compound, which includes microorganisms that could increase wheat yields in arid and semi-arid regions by as much as 68 percent. The new compound would contribute to increasing wheat productivity by making it possible to plant wheat in completely arid lands.
- On 8<sup>th</sup> January 2017, Mr. Ahmed Soud, Chief Executive, Egyptian Environmental Affair Agency; and Dr. Ashraf Shaalan, President, National Research Center signed a cooperation protocol for conservation of Environment. The protocol targets promotion of technical and applied research capacity in conservation and protection of environment.

### Royal Scientific Society (RSS), Jordan

During 2017, the RSS officials received a number of international awards and recognitions, including.

- The Director-General of UNESCO, Ms. Irina Bokova, honored Princess Sumaya bint Hassan of Jordan (President RSS) with the title of 'UNESCO Special Envoy for Science for Peace' (2017-2019).



- Her Royal Highness was also awarded a Chancellor's Citation by Chancellor Nicholas Dirks.
- Dr. Muhammad Saidam, Chief Scientist, RSS, was among 15 eminent scientists and experts to work as 'Team of Global Experts to Serve UN', with the various branches of the United Nations to compile comprehensive reports with the aim of giving policy-makers necessary data and information on sustainable development.

The World Science Forum 2017 was organized by the Royal Scientific Society of Jordan (RSS), in collaboration with the United Nations Educational, Scientific, and Cultural Organization (UNESCO); Hungarian Academy of Sciences (MTA); American Association for the Advancement of Science (AAAS); World Academy of Sciences (TWAS); European Academies Science Advisory Council (EASAC); International Council for Science (ICSU); Inter-Academy Partnership (IAP); International Social Science Council (ISSC); and Science Counsellor representatives of the G77. Held from 7<sup>th</sup> to 10<sup>th</sup> November 2017, the Forum gathered 3000 leaders from 140 countries. There were 15 thematic sessions, 150 organizations represented, 22 special sessions, and a number of side events.

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

- The TIRDO Energy Division acquired state-of-the-art equipment (including CHS Analyzer and Bomb Calorimeter Parr 6400) for analyzing the quality of coal (and other energy materials).
- A Greener Casava processing system was developed by TIRDO, which consists of a grating machine with a pressing unit, a hybrid solar-biogas tunnel drying system for cassava grits, yeast fermentation system for bioethanol production and bacteria fermentation system for production of oligosaccharides, and anaerobic digester for biogas production.
- TIRDO scientists brought out 13 publications during 2017.

## TUBITAK Marmara Research Centre (MAM), Turkey

TUBITAK MAM continued its efforts for South-South and North-South Cooperation in 2017. Some interactions in this regard were with a delegation from Pakistan Meteorological Department (PMD), Consul General of Slovak Republic in Istanbul, Chief Scientific Adviser of





British Foreign Ministry, Consulate General of the United Kingdom, President of Palestinian Higher Council for Innovation and Excellence (HCIE), Director of Qatar National Research Fund, Director Qatar Foundation, and senior officials from National Nuclear Energy Agency of Indonesia, Indonesian Institute of Sciences (LIPI), Institute for Research and Community Services (LPPM), Diponegoro University and Islamic Development Bank (IDB)

TÜBİTAK MAM hosted a meeting of the Country Consultants of The Republic of Turkey Prime Ministry Investment Support and Promotion Agency (ISPAT) in countries, including USA, Germany, United Arab Emirates, China, France, Spain, Japan, Korea, United Kingdom and Saudi Arabia on 28<sup>th</sup> November 2017.

Collaborations were sought/strengthened with Netherlands Organization for Applied Scientific Research (TNO) and CERN. A “Cooperation Framework Agreement” was signed with the latter in Switzerland.

During 2017, TUBITAK MAM participated in and organized a number of activities for capacity-building of human resource in science and technology related to water challenges, strengthening cooperation, nuclear power plants, restoration of heritage and renewable energy.

After having catered to requests from China, TUBITAK MAM is now providing test and analysis services to the United States of America. The number of the countries served has reached 17, subsequent to the “implantation and sub-acute toxicity test” requests from the private sector of the USA.

TÜBİTAK MAM developed a starch-added flour to help check the ever increasing rates of obesity and diabetes in Turkey. The new products “Starch-added Diet Flour” and “Starch-added

Diabetic Flour” were introduced at Halal Expo 2017, Turkey.

## University Cheikh Anta Diop (UCAD), Senegal

On 4<sup>th</sup> December 2017, Michel Seck, a PhD student at the Department of Mathematics and Computer Science, UCAD, developed a software named ‘Simula’ that helps the teachers of secondary and higher level education in preparing lessons and correcting the exercises.

## Water Research and Technologies Centre (CERTE), Tunisia

During 2017, CERTE conducted research in number of fields including: hydro-geophysics and geostatistics; hydrogeology modeling; geology, geochemistry and mineralogy; water resources modeling and climate change impact; sanitary engineering, toxicity; new approaches, and techniques; application of membranes ; phyto-remediation; disinfection of wastewater; and rural sanitation.

CERTE organized the following two international events:

- Atlas Geo-resource International Congress (AGIC);
- International Conference on Advanced oxidation processes.

The officials from CERTE also participated in 3 other international events.

CERTE also increased its partnership in several internationally funded bilateral and multilateral projects with PHC-UTIQUE, France; TRIFOLD, Germany; CMPTM, Morocco; European Union Horizon 2020; and German Academic Exchange Service (DAAD), Germany.



## STRENGTHENING TRIANGULAR COOPERATION: COLLABORATIONS WITH NATIONAL AND INTERNATIONAL ORGANIZATIONS

*COMSATS has been endeavouring 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 through its Centres of Excellence for sustainable socio-economic development of the Member States. These partnerships aim at complementing COMSATS' programmes focusing on capacity-building of S&T community in developing countries. The horizons of the cooperation in this regard are being broadened to the North to augment the organization's efforts for strengthening triangular cooperation.*



### Institutions in United Kingdom

In order to enhance the cooperation with the institutions of United Kingdom, officials from COMSATS Secretariat visited UK and held meetings with officials of Lancaster University, Universities UK International (UUKi), Commonwealth Secretariat, Association of Commonwealth Universities (ACU), and British Council.

As a follow-up, delegates from the British Council comprising of Mr. John McGovern, Consultant at British Council UK; Ms. Liz Dempsey, Advisor at British Council Manchester; and Mr. Hamza Salim, Project Manager at British Council Pakistan, visited COMSATS Secretariat

on 11 December 2017.

On the invitation of the Commission, Dr. John Kirkland, former Head of the Association of Commonwealth Universities (ACU) visited COMSATS Secretariat on a four-day visit on December 11, 2017, with a view to provide informed inputs for re-aligning COMSATS' programmes for a better impact.

### United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

COMSATS signed an MoU with UNESCAP on 20<sup>th</sup> December 2017. Dr. S. M. Junaid Zaidi, Executive Director, COMSATS, and



Dr. Shamshad Akhtar, Executive Secretary, UNESCAP, signed the MoU on behalf of their respective organizations. The MoU entails collaboration in joint research, events, capacity-building, and strengthening the COMSATS Network of Centres of Excellence. The cooperation also involves exchanging comprehensive thought leadership, cooperation platforms as well as technical and advisory services; to support member countries in exploiting the potential of STI for sustainable development.

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

During 2017, COMSATS and ISESCO jointly organized five capacity-building events, in Pakistan, Nigeria, Kazakhstan, and the Gambia, on food security, applications of ICTs, maintenance of scientific equipment, viruses and vaccines, and internet security. Over 580 scientists, engineers, technicians and industry professionals benefitted from the events.

### International Centre for Genetic Engineering and Biotechnology (ICGEB), Italy

COMSATS enhanced its efforts to collaborate

with ICGEB, Italy. Senior officials of COMSATS held a meeting in ICGEB. The two sides agreed on initiating Joint Fellowship Programmes in respective Member States. It was agreed that the calendar of scientific events and annual meetings would be shared by the two organizations and sponsorship and/or travel grants would be provided to scientists belonging to common Member States. The officials also nominated reference personnel to identify areas of collaboration and possibilities for joint programmes and agreements as well as follow-up the initiatives taken in this regard.

### Oman National Computer Emergency Readiness Team (OCERT)

On 2<sup>nd</sup> November 2017, a Protocol of Cooperation was signed between COMSATS and the Oman National Computer Emergency Readiness Team (OCERT) for cooperation in areas of cyber security and computer emergency response. As agreed in the Protocol, both sides will collaborate for the following activities:

- Joint research and development projects;
- International conferences, training and workshops;
- Exchange of experts and researchers; and
- Exchange of information and technical expertise.





## The European Union

In line with COMSATS' efforts to expand the scope of its programmes and international partnerships, a delegation from European Union (EU), Pakistan, visited COMSATS Secretariat on 28th August 2017, including Ms. Anne Marchal, Charge d'Affaires, EU, Pakistan, and Mr. Husnain Iftakhar, Senior Economist. It was suggested to have consultations and high-level meetings with senior officials of EU to further explore avenues of cooperation between the two organizations. Ms. Marchal believed that EU-COMSATS partnership could be useful given that due channels are utilized and right resources mobilized in the regional office and EU HQ in Brussels.

## Interactions with Host Country, Pakistan

- On March 15, 2017, the Federal Minister for Science and Technology, Government of Pakistan, H.E. Rana Tanveer Hussain, hosted a dinner to introduce the newly appointed Executive Director COMSATS to the diplomatic community of Member and potential member states in Islamabad, as well as senior government functionaries of Pakistan.
- On 3<sup>rd</sup> October 2017, H. E. Mr. Dostain

Khan Domki, the Honorable Minister of State for Science and Technology and Ms. Yasmin Masood, Federal Secretary, Ministry of Science and Technology, visited COMSATS Secretariat.

- Dr. Zaidi, hosted a hi-tea for senior scientists and experts from different institutions related to science and technology on 29<sup>th</sup> March 2017. To seek their inputs for improving the future projects and programmes of COMSATS.
- On April 21, 2017, an honorable Member of National Assembly, Government of Pakistan, Ms. Tehmina Daultana, visited COMSATS Secretariat.
- On July 18, 2017, the Executive Director COMSATS hosted a luncheon for the leadership of the Pakistani Universities at the premises of COMSATS Secretariat.

## Institute of Peace and Diplomatic Studies (IPD)

On 22<sup>nd</sup> June 2017, a Memorandum of Understanding was signed between COMSATS and the Institute of Peace and Diplomatic Studies (IPD), Islamabad, Pakistan. The cooperation that continued under the agreement led to strengthening COMSATS membership campaign.





## STRENGTHENING SOUTH-SOUTH COOPERATION: MEETINGS WITH OFFICIALS FROM THE SOUTH

*One of the functions of COMSATS is to support major initiatives designed to promote indigenous S&T capacities of the Member States through synergies among relevant Governments/Institutions in the North and the South. Dignitaries, officials and delegations from a number of developing countries are engaged on regular basis to establish and promote linkages to strengthen South-South cooperation in a number of fields, including education, training and research.*



### Meetings with Diplomats of Member States

During 2017, meetings were arranged with the foreign diplomats and dignitaries in Islamabad to sensitized them on COMSATS' undertakings and future aspirations. The foreign diplomats and dignitaries were briefed about the scope, mission and mandate of the Organization. These included:

- Ambassador of Palestine, H. E. Mr. Walid Abu Ali (27<sup>th</sup> March 2017);
- Ambassador of Syria, H. E. Mr. Radwan Loutfi (3<sup>rd</sup> April 2017);
- Vice President, TUBITAK MAM, Turkey, Dr. Murat Makaraci (29<sup>th</sup> May 2017);
- The First Secretary, Chinese Embassy in Islamabad, Mr. Jia Wei (12<sup>th</sup> June 2017);
- Ambassador of Jordan, H. E. Mr. Nawaf Khalifa Ibrahim Saraireh (14<sup>th</sup> June 2017);
- Ambassador of Tunisia, H. E. Mr. Adel Elarbi (15<sup>th</sup> June 2017);
- Ambassador of Sudan, H. E. Mr. Tageldin Elhadi Eltahir (19<sup>th</sup> June 2017);
- Ambassador of Palestine, H. E. Mr. Walid Abu Ali (7<sup>th</sup> July 2017);
- Minister for Science and Technology, China, H.E. Prof. Wan Gang (8<sup>th</sup> July 2017);
- High Commissioner of Bangladesh, H. E. Mr. Tarik Ahsan (11<sup>th</sup> July 2017);
- Permanent Secretary, Ministry of Higher Education, Research, Science and Technology (MHERST), The Gambia, H.E. Mr. Yaya Sireh Jallow (14<sup>th</sup> September 2017);
- Ambassadors of Tunisia, H. E. Mr. Adel Elarabi, and Somalia, H. E. Mrs. Khadija Mohamed Almakhoum (2<sup>nd</sup> October 2017);
- Ambassador of Morocco, H. E. Mr. Mohamed Karmoune (27<sup>th</sup> November 2017);
- President, Scientific and Technological Research Council of Turkey (TUBITAK), H. E. Prof. Dr. Ahmet Arig Ergin (12<sup>th</sup> December 2017)

## 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 exploring their potential for becoming COMSATS' member states. 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:

- High Commissioner of Malaysia, H.E. Dato' Dr. Hasrul Sani Mujtabar (19<sup>th</sup> June 2017);
- Ambassador of Uzbekistan, H. E. Mr. Furkat A. Sidikov (2<sup>nd</sup> August 2017);
- Ambassador of Turkmenistan, H.E. Mr. Movlamov Atajan Nurlyevich (2<sup>nd</sup> August 2017);
- Ambassador of Kyrgyz Republic, H. E. Erik Beishembiev (4<sup>th</sup> August 2017);
- Ambassador of Vietnam, H. E. Mr. Nguyen Xuan Luu (18<sup>th</sup> August 2017);
- Ambassador of Yemen, H. E. Mr. Mohammed Motahar Alashabi (18<sup>th</sup> August 2017);
- Ambassador of Azerbaijan, H. E. Mr. Ali Alizada (21<sup>st</sup> August 2017);
- High Commissioner of South Africa, H. E. Mr. Mpendulo Jele Kumalo (24<sup>th</sup> August 2017);
- Ambassador of Tajikistan, H. E. Mr. Sherali S. Jononov (30<sup>th</sup> August 2017);
- Ambassador of Cuba, H. E. Mr. Gabriel Tiel Capote (22<sup>nd</sup> September 2017);
- High Commissioner of Kenya, H. E. Prof. Julius K. Bitok (27<sup>th</sup> September 2017);
- Deputy Head of Mission, Afghanistan, H. E. Mr. Zardasht Shams (31<sup>st</sup> October 2017);
- Ambassador of Azerbaijan, H. E. Mr. Ali Alizada (3<sup>rd</sup> November 2017);
- Ambassador of Nepal, H. E. Ms. Sewa Lamsal Adhikari (24<sup>th</sup> November 2017);
- Ambassador of Argentina, H. E. Mr. Ivan Ivanissevich (24<sup>th</sup> November 2017);
- High Commissioner of Pakistan to Australia, H. E. Mrs. Naela Chohan (29<sup>th</sup> December 2017);
- Ambassador of Brazil, H. E. Mr. Claudio Raja Gabagli (12<sup>th</sup> April 2017).



## INTERNATIONAL VISITS OF SECRETARIAT OFFICIALS

*The senior officials of COMSATS Secretariat undertake international visits from time-to-time 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 (May 2017)

A three-member delegation of COMSATS headed by Ambassador (R) Fauzia Nasreen, Advisor as COMSATS Headquarters visited Accra, Ghana from 21<sup>st</sup> to 24<sup>th</sup> May 2017. Other officials accompanying her were Mr. Nisar Ahmad and Mr. Basit Rehman. The purpose of the visit was to strengthen relations with the country hosting the Chair of COMSATS through interactions with its partner institutions within the country. In this regard, meetings were held at COMSATS' focal point, Ministry for Environment, Science, Technology and Innovation (MESTI) and COMSATS Centre of Excellence in the country, the Council for Scientific and Industrial Research (CSIR). Important discussions and exchanges took place especially pertaining to the Chairperson's office and future activities of COMSATS.

### Nigeria (July 2017)

Mr. Farhan Ansari, Sr. Assistant Director (Programmes), COMSATS Secretariat, visited Abuja, Nigeria, from 24<sup>th</sup> to 28<sup>th</sup> July 2017, in order to represent COMSATS while jointly organizing the 4th International Workshop on 'Applications of ICTs in Education, Healthcare and Agriculture' (25<sup>th</sup> to 27<sup>th</sup> July 2017, Abuja, Nigeria). Also important meetings were held with the Federal Minister for Science and Technology, Government of Nigeria; and the Director, National Mathematical Centre (NMC), Nigeria.

### The United Kingdom (August 2017)

A delegation from COMSATS Secretariat led by the Executive Director COMSATS, Dr. S. M. Junaid Zaidi, visited the United Kingdom from 5<sup>th</sup> to 13<sup>th</sup> August 2017. The delegates held successful meetings with officials from Universities UK International; Lancaster





University; Commonwealth Secretariat; High Commission of Pakistan in UK; Association of Commonwealth Universities; and British Council London. The officials that were met pledged to provide support to COMSATS for its projects and activities in Member States.

### Thailand (July 2017)

A three-member delegation of COMSATS comprising of Mr. Bilal Chouhan, Director (A&E); Mr. Laeeq Hassan Jaswal, Assistant Professor; and Mr. Shahzad Ahmed, Manager (IR), visited Bangkok, Thailand, from 16 to 23 July 2017. The visit was undertaken to attend training on “Excellence in Change and Impact Evaluation” jointly organized by International Development Research Centre (IDRC) and Sustainable Development Policy Institute (SDPI) and United Nation Economic and Social Commission for Asia and the Pacific (UNESCAP). The training was meant for productive learning experience and interaction with technical experts, speakers and participants from other think tanks and policy institutions. The training facilities were provided by UNESCAP office in Bangkok.

### Malaysia and Thailand (October 2017)

A delegation of COMSATS comprising of Prof. Dr. Qaisar Abbas, Director, CIIT-Lahore; Dr. Abdus Sattar Abbasi, Head, Centre of Islamic

Finance, CIIT-Lahore; and Mr. Shahzad Ahmed, Manager (International Relations), CIIT, Islamabad, visited Malaysia and Thailand. The purpose of the visit included follow-up of the matter accession of Malaysia and Thailand to COMSATS as member states; attending Kuala Lumpur Islamic Finance Forum (KLIFF-2017); meetings at International Centre for Education in Islamic Finance (INCEIF), International Islamic University Malaysia, University Putra Malaysia, High Commission of Pakistan in Malaysia, and Ministry of Science Technology and Innovation in Malaysia; participation in Disaster Resilience Week at United Nations Economic and Social Commission for Asia Pacific (UNESCAP), Bangkok; and meetings at Ministry of Science and Technology, Bangkok, Thailand.

### The Gambia (October 2017)

Ms. Huma Balouch, Senior Assistant Director (Programmes) COMSATS, undertook a visit to Sere Kunda, the Gambia, from 10<sup>th</sup>-12<sup>th</sup> October 2017 with an objective to represent COMSATS and make necessary organizational arrangements at the jointly organized first International Congress on Viruses and Vaccines in Tropical Areas. Ms. Balouch also held a meeting with the Vice President of the Republic of the Gambia, and higher officials of Medical Research Council (UK) unit in the Gambia, to discuss matters of mutual interest.





### Oman (November 2017)

A five-member delegation of COMSATS Secretariat visited the Sultanate of Oman from 31<sup>st</sup> October to 2<sup>nd</sup> November 2017, in connection with signing a Protocol of Cooperation with Oman National Computer Emergency Readiness Team (OCERT). Besides the MoU signing, the delegation held meetings with the Ambassador of Pakistan in Oman and officials of Sultan Qaboos University, Oman. The officials also participated in Young Leaders Forum.

### Italy (November 2017)

A four-member delegation of COMSATS headed by Dr. S. M. Junaid Zaidi, Executive Director COMSATS, and comprising of Mr. Tajammul Hussain, Advisor (Programmes); Dr. Kamran Jahangir, Advisor (TAC); and Mr. Farhan Ansari, Senior Assistant Director (Programmes) visited Trieste, Italy in order to participate in the 2<sup>nd</sup> Meeting of COMSATS' Technical Advisory Committee. On the sidelines of the TAC meeting the delegates visited ICGEB Headquarters in Italy.

### China (December 2017)

A four-member delegation of COMSATS

headed by the Executive Director COMSATS, Dr. S. M. Junaid Zaidi, visited People's Republic of China from 16<sup>th</sup>-22<sup>nd</sup> December 2017. The delegation met Chinese authorities and Heads of various scientific institutions with the agenda to further strengthen the relationship in research and innovation between China and COMSATS. The purpose of the visit was to meet the senior officials of Chinese Ministry of Science and Technology (MoST); Ministry of Commerce; Chinese Academy of Sciences (CAS); International Center for Climate and Environmental Sciences (ICCES); and Tianjin Institute of Industrial Biotechnology (TIB).

### Kazakhstan (December 2017)

Mr. Farhan Ansari, Sr. Assistant Director (Programmes), COMSATS Secretariat, visited Almaty, Kazakhstan, from 19<sup>th</sup> to 23<sup>rd</sup> December 2017, in order to perform the following tasks:

- To represent COMSATS in a co-organized event, 7<sup>th</sup> International Workshop on 'Internet Security: Enhancing Information Exchange Safeguards,' and
- To hold a meeting with the Rector and Vice Rector, Al-Farabi Kazakh National University (KazNU), Kazakhstan.

## S&T EVENTS ORGANIZED WITH COMSATS SUPPORT

*Capacity-building activities are an important feature of COMSATS' programmes aimed at strengthening South-South Cooperation. The organization has been regularly organizing scientific events in areas of crucial importance to strengthen scientific linkages; build indigenous capacities; and promote S&T as a tool for development. These events provide a useful platform to the members of the scientific community, development experts, donor and development agencies, and the decision-makers in particular from Member States, to share their views and experiences on contemporary issues of importance for S&T-led socio-economic development.*



The events organized during 2017 included:

- Conference on Agriculture, Food Security and Biotechnology, Islamabad, Pakistan (26<sup>th</sup>-27<sup>th</sup> April 2017);
- International Workshop on Applications of ICTs in Education, Healthcare and Agriculture, Abuja, Nigeria (25<sup>th</sup>-27<sup>th</sup> July 2017);
- Forum on 2030 Sustainable Development Agenda for Sustainable Development, Islamabad, Pakistan (12<sup>th</sup> September 2017);
- National Workshop on Repair and Maintenance of Scientific, Engineering Equipment in Universities, Research Institutions and Small Scale Industries, Almaty, Kazakhstan (2<sup>nd</sup>-6<sup>th</sup> October 2017);
- International Congress on Viruses and Vaccines in Tropical Areas, Sere Kunda, Gambia (11<sup>th</sup>-12<sup>th</sup> October 2017); and
- International Workshop on Internet Security: Enhancing Information Exchange Safeguards, Almaty, Kazakhstan (19<sup>th</sup>-23<sup>rd</sup> December 2017).



## SPECIAL ASSIGNMENTS

*For the benefit of its Member States, COMSATS undertakes special assignments, such as conducting scientific studies, undertaking pilot projects, or implementing educational programmes. Two of the COMSATS' flagship projects have been successfully transformed into full-fledged institutions, i.e., COMSATS Institute of Information Technology (covered in earlier section) and COMSATS Internet Services (CIS), while a third project on tele-health is being expanded. The administration related to graduate students from Member States studying at CIIT is also one of the special assignments of the Secretariat. Some of the foreign students after thorough evaluation have been engaged to facilitate in COMSATS' operations.*



### COMSATS Tele-Health Programme (CTH)

COMSATS initiated efforts to reach out to its member states for joint collaborations in tele-health. In order to share the experiences and lessons, and to seek collaborations in the field of tele-health, mapping of tele-health and related projects of COMSATS' Centres of Excellence and relevant organizations has been started. Some developments include:

- COMSATS joined hands with Shaheed Zulfiqar Ali Bhutto Medical University (SZABMU), Pakistan Institute of Medical Sciences (PIMS) for establishing an e-health system at PIMS hospital, Islamabad, linking patients at far-flung areas with medical practitioners at the hospital.

- During the reporting period, COMSATS agreed to join hands with a medical facility at Muzaffarabad, Midlands Doctors Medical Institute (MDMI), in order to establish a tele-health set-up at MDMI health facility and link it to overseas medical specialists.

One of the components of COMSATS Tele-Health is being executed at COMSATS Internet Services (CIS) as a project titled "Establishment of TeleHealth Clinics Network". The project comprises of a network of 13 rural telehealth clinics, that are functional and successfully operating at rural Basic Health Units (BHUs) located in the vicinity of Islamabad, Rawalpindi, Peshawar, Swabi, Lahore, Multan, Khairpur, Quetta, Musakhail, and Gwadar.



## COMSATS Internet Services

Currently, CIS is operating in 17 cities and has more than 10,000 customers of organizations from public and private sector.

During the year 2017, six meetings of Board of Management of CIS were held under the chairmanship of Dr. S.M. Junaid Zaidi, Executive Director COMSATS. An important decision of the Board meeting was appointment of Mr. Jamshed Masood as the Chief Executive Officer (CEO).

CIS offers eight brands of core services, which form 'The Colors of CIS'. These included Wireless broadband, Domain, hosting, and VPS and Optical Fiber Connectivity. The value added services include Hurricane™ (On-demand broadband), Prism™ (Website development), Viacon™ (Video conferencing), and COM meeting™ (web Conferencing Service). CIS also offers social services in the form of ComClinic™ (Tele-health service).

CIS Tele-Health clinic network comprising of 13 rural Tele-Health clinics has been operating successfully at Rural Basic Health Units (BHUs) located in the remote areas of Pakistan.

CIS Islamabad has initiated an e-education project in collaboration with Universal Service Fund (USF), Islamabad.

In 2017:

- CIS expanded its operations in Rawalpindi/ Islamabad area by establishing base stations/ CIS offices at Tarnol, BaraKahu, and PWD Colony and also expanded its services from Lahore to Okara and Hasilpur.
- A Node at Toba Tek Singh has been established by CIS, Faisalabad.

Punjab Information Technology Board (PITB) project won last year by CIS is being executed successfully in Attock, Bahawalpur, Jehlum, Sargodha, and Okara (50 BHUs connectivity and support).

## COMSATS Graduate Scholarship Programme

Ten doctoral/post-doctoral scholarships are available for international students from COMSATS' member countries at the International Centre for Chemical and Biological Sciences (ICCBS), Karachi, while Bangladesh Council for Scientific and Industrial Research (BCSIR), Bangladesh; International Centre for Climate and Environmental Sciences (ICCES), China; and National Research Centre (NRC), Egypt, have also agreed to provide access to their labs and facilities and engage researchers from other member countries through post-doctoral fellowships.

## COMSATS Foreign Interns Programme

During 2017, 18 foreign students serve at COMSATS Secretariat under the new Foreign Interns Programmes of COMSATS. The interns were assigned to select three countries each and establish contacts with in the top universities/ institutions of the selected countries in areas of Science and Technology for possible collaboration on scientific research activities with COMSATS and its Centers of Excellence.



## PUBLICATIONS AND INFORMATION DISSEMINATION

*Information dissemination through publications is an important mechanism of outreach for COMSATS, which is done through four major tools: bimonthly Newsletter, bi-annual journal 'Science Vision', COMSATS' Series of S&T Publications and COMSATS' official website, apart from other promotional material. From time to time, COMSATS also collaborates with different institutions to bring out joint publications.*

### COMSATS Newsletter

By the end of 2017, a total of 53 issues of the newsletters have successfully kept the stakeholders abreast of COMSATS' activities and aspirations, among other things. The year 2017 saw five issues of Volume 9 and one of volume 8 printed.



### Annual Report 2016

COMSATS Annual Report 2016 was finalized in early April 2017 with a completely new outlook duly covering COMSATS activities, including those of its Centres of Excellence.

### Mid-Year Report 2017 (January to June 2017)

The activities of COMSATS Secretariat and its Network of International Science and Technology Centres of Excellence in the first half of year 2017 were documented in a Mid-Year report.

### COMSATS' Journal 'Science Vision' (Volume 21)

Volume 21 (1&2) of Science Vision was also

published during the reporting period. The composite Volume included 7 papers on different themes.

### COMSATS' Series of Publications on Science and Technology (16): International Symposium on Light and Life – Proceedings

The 16<sup>th</sup> book of the series covering the proceedings of the International Symposium on 'Light and Life' held to observe UNESCO's International Year of Light and Light-based Technologies was published and distributed.

### Profiles of COMSATS Centres of Excellence (Brief)

In order to provide ready information on COMSATS Network, to stimulate important relevant collaborations, brief profile compilation of the network of COMSATS' Centres of Excellence was developed.



### COMSATS' Website and other Informational Material

As an important repository of all information on COMSATS, the official website of COMSATS was kept updated with fresh information on various undertakings and related aspects of the organization.

## FINANCIAL AFFAIRS

*COMSATS Secretariat manages annual grant by the Government of Pakistan for meeting the recurring expenditure of the Secretariat besides Annual Membership Contributions received from COMSATS' Member States, as well as COMSATS Endowment Fund.*

The Government of Pakistan, being the host country of COMSATS Secretariat, is meeting the running costs of COMSATS Secretariat under an international agreement. Currently, the Government of Pakistan annually contributes PKR 40.00 million towards the running costs of COMSATS Secretariat.

M/s. HLB IJAZ TABUSSUM & CO., Chartered Accountants were engaged to conduct audit of accounts for the financial year ended on June 30, 2016. The Auditors' Report and Audited Financial Statements for the year ended on June 30, 2016, were approved by the Coordinating Council of COMSATS during its 20<sup>th</sup> meeting held on May 14-15, 2017, in Cairo, Egypt. During the year 2017, COMSATS received

Annual Membership Contributions (AMC) from four Member States, Pakistan, China, Kazakhstan and Sudan.

Annual Membership Contribution - 2017	
Country	Amount (US\$)
Pakistan	20,000
China	20,007
Kazakhstan	20,000
Sudan	3,000
Total	63,000



## LIST OF FOCAL POINTS IN COMSATS' MEMBER STATES

### **H.E. Mr. Yeafesh Osman**

Minister  
Ministry of Science and Technology  
Dhaka, Bangladesh.

### **H.E. Prof. Wan Gang**

Minister  
Ministry of Science and Technology,  
Beijing, China.

### **Dr. César Ocampo**

Director General  
The Administrative Department of Science,  
Technology and Innovation - COLCIENCIAS  
Bogotá D.C., Colombia.

### **H.E. Dr. Khaled Abdel Ghaffar**

Minister  
Ministry of Higher Education and Scientific  
Research  
Cairo, Egypt.

### **H.E. Dr. Badara Joof**

Minister  
Ministry of Higher Education, Research,  
Science and Technology  
Kotu, The Gambia.

### **H.E. Prof. Dr. Kwabena Frimpong Boateng**

Minister  
Ministry of Environment, Science, Technology  
and Innovation  
Accra, Ghana.

### **H.E. Dr. Syed Zia Hashemi**

Minister  
Ministry of Science, Research and Technology  
Tehran, Iran.

### **Hon. Dr. Andrew Wheatley**

Minister  
Ministry of Science, Technology, Energy and  
Mining  
Jamaica, West Indies.

### **Dr. Khaled Elshuraydeh**

Secretary General  
Higher Council for Science and Technology  
(HCST)  
Amman, Jordan.

### **H.E. Mr. Sagada Yerlan Kenzhegalievich**

Minister  
Ministry of Education and Science  
Astana, Kazakhstan.

### **Mr. Jang Chol**

President  
State Academy of Sciences  
Pyongyang, Korea, D.P.R.

### **H. E. Mr. Mohamed Hassad**

Minister  
National Education, Vocational Training,  
Higher Education and Scientific Research  
Rabat, Morocco.

### **Dr. (Mrs.) Amina M.B. Shamaki**

Permanent Secretary  
Federal Ministry of Science & Technology  
Abuja, Nigeria.

### **Ms. Yasmin Masood**

Federal Secretary  
Ministry of Science and Technology  
Islamabad, Pakistan.

### **H.E. Dr. Sabri Saidam**

Minister  
Ministry of Education and Higher Education  
Ramallah, Palestine

### **Hon. Fortunato T. De La Peña**

Secretary  
Department of Science and Technology  
(DOST)  
Manila, Philippines.

**Hon. Mary Teuw Niane**

Minister  
Ministère de l'Enseignement Supérieur, des  
Universités, des Centres Universitaires  
Dakar, Senegal.

**H.E. Mr. Abdi Dahir Osman**

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

**Hon. Susil Premajayantha**

Minister  
Ministry of Science, Technology and Research  
Battaramulla, Sri Lanka.

**H. E. Dr. Tahani Abd Allah Atia**

Minister  
Ministry of Science and Communications  
Khartoum, Sudan.

**H.E. Dr. Atef Nadav**

Minister  
Ministry of Higher Education  
Damascus, Syria.

**H.E Prof. Makame M. Mbarawa**

Minister  
Ministry of Communication, Science and  
Technology  
Dar es Salaam, Tanzania.

**H.E. Prof. Slim Khalbous**

Minister  
Ministry of Higher Education and Scientific  
Research  
Tunis, Tunisia.

**H.E. Prof. Hasan Mandal**

President  
The Scientific and Technological Research  
Council of Turkey (TUBITAK)  
Ankara, Turkey

**Dr. Peter Ndemere**

Executive Secretary  
Uganda National Council for S&T  
Kampala, Uganda.

**Hon. Prof. Jonathan Moyo**

Minister  
Ministry of Higher and Tertiary Education,  
Science and Technology Development  
Harare, Zimbabwe.





## LIST OF HEADS OF CENTRES OF EXCELLENCE

### **Mr. Md. Faruque Ahmed**

Chairman  
Bangladesh Council of Scientific and Industrial  
Research (BCSIR)  
Dhaka, Bangladesh.

### **Dr. Gustavo Ribeiro Xavier**

Director General  
Embrapa Agrobiologia  
Rio de Janeiro, Brazil.

### **Prof. Lin Zhaohui**

Director  
International Centre for Climate and  
Environment Sciences (ICCES)  
Beijing, China.

### **Prof. Dr. Yanhe Ma**

Director General  
Tianjin Institute of Industrial  
Biotechnology (TIB)  
Tianjin, China

### **Dr. Eduardo Posada F.**

Director  
International Centre of Physics (CIF)  
Bogotá, Colombia.

### **Prof. Dr. Ashraf Shaalan**

President  
National Research Centre (NRC)  
Cairo, Egypt.

### **Prof. Dr. Victor Agyeman**

Director General  
Council for Scientific and Industrial Research  
(CSIR)  
Accra, Ghana.

### **Dr. Fathollah Moztarzadeh**

President  
Iranian Research Organization for Science &  
Technology (IROST)  
Tehran, Iran.

### **Mr. Charles N. Grant**

Director General  
International Centre for Environmental and  
Nuclear Sciences (ICENS)  
Kingston, Jamaica.

### **HRH Princess Sumaya bint El Hassan**

President  
Royal Scientific Society (RSS)  
Amman, Jordan.

### **Prof. Dr. G. M. Mutanov**

Rector  
Al-Farabi Kazakh National University (KazNU)  
Almaty, Kazakhstan.

### **Prof. Stephen E. Onah**

Director/Chief Executive  
National Mathematical Centre (NMC)  
Abuja, Nigeria.

### **Prof. Dr. Raheel Qamar**

Rector  
COMSATS University Islamabad (CUI)  
Islamabad, Pakistan.

### **Prof. Dr. M. Iqbal Choudhary**

Director  
International Center for Chemical and  
Biological Sciences (ICCBS)  
Karachi, Pakistan.

### **Prof. Dr. Imad F. S. Abukishek**

President  
Al-Quds University  
Abu Dis, Palestine

### **Prof. Ibrahima Thioub**

Rector/President of the Assembly  
of the Université Cheikh Anta Diop  
of Dakar (UCAD)  
Dakar, Senegal.

**Dr. G.A.S. Premakumara**

Director/CEO  
Industrial Technology Institute (ITI)  
Colombo, Sri Lanka.

**Dr. Widad Hassan Abdel Halim Hassan**

Director General  
Industrial Research and Consultancy  
Centre (IRCC)  
Khartoum, Sudan.

**Dr. Maher Suleiman**

Director  
Higher Institute for Applied Science and  
Technology (HIAST)  
Damascus, Syria.

**Prof. Mkumbukwa Madundo Angelo  
Mtambo**

Director General  
Tanzania Industrial Research and  
Development Organization (TIRDO)  
Dar-es-Salaam, Tanzania.

**Prof. Ahmed Ghrabi**

Director General  
Water Research and Technologies Centre of  
Borj-Cedria (CERTe)  
Soliman, Tunisia.

**Dr. Orkun Hasekioglu**

President  
TÜBİTAK Marmara Research Center (MAM)  
Gebze Kocaeli, Turkey.







BCSIR-Bangladesh



Embrapa Agrobiologia-Brazil



ICES-China



TIB-China



CIF-Colombia



NRC-Egypt



IROST-Iran



ICENS-Jamaica



RSS-Jordan



KazNU-Kazakhstan



NMC-Nigeria



ICCB-Pakistan



CUI-Pakistan



AQU-Palestine



UCAD-Senegal



ITI-Sri Lanka



IRCC-Sudan



HIAST-Syria



TIRDO-Tanzania



CERTE-Tunisia



TÜBİTAK MAM-Turkey

## COMSATS Secretariat

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