

# COMSATS

Paving the Way for Sustainable Development  
through Science & Technology



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



# COMSATS

Paving the Way for Sustainable Development  
through Science & Technology

December 2022



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



**"Scientific  
thought and  
its creation  
is the  
common  
and shared  
heritage of  
mankind"**

**Dr. Abdus Salam  
(1926-1996)  
Nobel Laureate  
and Founding  
Father of  
COMSATS**

# CONTENTS

01	MESSAGE FROM THE EXECUTIVE DIRECTOR	01
02	INTRODUCTION	03
03	HISTORICAL BACKGROUND	04
04	MEMBER STATES	06
05	OBJECTIVES	08
06	ORGANIZATIONAL STRUCTURE	09
07	THRUST AREAS	13
08	FLAGSHIP PROJECTS	14
09	INTERNATIONAL PROGRAMMES AND ACTIVITIES	19
10	INTERNATIONAL COOPERATION	27
11	INFORMATION DISSEMINATION	29
12	FINANCES	31

## Paving the Way for Sustainable Development through:

**1** Promotion of Science, Technology and Innovation as a means to fast track socio-economic development

**2** Mobilization of Scientific and Technological Resources through South-South Cooperation

**3** Capacity-Building of Member States through a Network of S&T Centres of Excellence

## MESSAGE FROM THE EXECUTIVE DIRECTOR

The idea of human development has evolved for the better over decades to include other dimensions culminating in an all-encompassing concept of Sustainable Development. Since the idea started being popularized in 1980s and well into the third decade of the 21st century, the globe has seen and continues to see different dimensions of growth.



Digital revolution has brought a swifter change in the world affecting the narrative of growth far quickly than the industrial revolutions of the 20th Century. Transcending the Hobbesian idea of security, the world has experiences welcome shifts towards cooperation and mutual co-existence, especially after Cold War. Cooperation in science has also evolved from technical cooperation in big labs to finding cooperative solutions to global problems, while also increasing inter-disciplinarity between hard and social sciences. Hopes of better future and fast delivery on various targets aimed to build a sustainable, green and peaceful world becomes plausible, despite concurring regional conflicts and tensions. However, true realization of such aims is possible only through inclusive approach to development is adopted. Besides, interconnectedness and complexity of global issues further requires mobilization of different actors in the spirit of achieving development goals through a multi-stakeholder approach. In the similar vein, the scope of various forms of development cooperation, including South-South Cooperation and Triangular Cooperation, need to be broadened if concrete and practical solutions to global challenges are to be found.

The Commission on Science and Technology for Sustainable Development in the South (COMSATS), whose genesis is drawn from the idea of creating

a pool of scientific resources for developing countries to jointly meeting their challenges, also takes on the bigger challenge of creating, more than ever, effective networking opportunities, promoting transfer of knowledge and technology, and mobilizing financial resources to help achieve development along three pillars of sustainable development – environmental, social and economic.

COMSATS is focused on fostering efforts for socio-economic development in its Member States – a development that is S&T-led, sustainable in true sense of the word, and is based on mutual interests. COMSATS is an apex forum with political backing and policy foresight from a Heads of State-level Commission and ministerial Consultative Committee, as well as a Network of S&T/ R&D and higher education institutions sharing scientific and technological expertise in areas most relevant to developmental needs. Based on a mutual benefit and interdependence, COMSATS' cooperation horizons are gradually growing beyond the South. All countries and institutions sharing COMSATS' vision of a stronger and more developed South are welcome to join the organization's mission.

With full commitment, COMSATS Secretariat would continue to play its due role for realizing the vision of its forefathers. This document is intended to provide a succinct yet comprehensive overview of the organization and its activities to all stakeholders, based on which they would hopefully feel encouraged to support the organization's operations.

**Ambassador Dr. Mohammad Nafees Zakaria**  
Executive Director COMSATS

## INTRODUCTION

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) is an intergovernmental organization striving for the sustainable socio-economic uplift of the developing countries through judicious use of science and technology. It is an apex forum of the developing countries having Heads-of-State/ Government of the Member States as Commission members. South-South cooperation is the major mechanism adopted by the organization to achieve its objectives. Hon. Nana Addo Dankwa Akufo-Addo, President of Republic of Ghana, is the incumbent Chairperson of COMSATS. As stipulated in the International Agreement of COMSATS, the Secretariat of the organization is permanently located in Islamabad, Pakistan.



**Chairperson of COMSATS**  
**Hon. Nana Addo Dankwa Akufo-Addo**  
President of Republic of Ghana

## HISTORICAL BACKGROUND

The idea of establishing a high-level Commission on Science and Technology as an apex body for countries of the South was conceived by Pakistani Nobel Laureate, Prof. Dr. Abdus Salam, in view of the increasingly widening gap of scientific knowledge and expertise between the North and the South leading to persistent disparities of economic strengths. Establishment of COMSATS was based on the understanding that sustainable socio-economic development in the South cannot be achieved without building and sustaining indigenous capacities in science and technology, and that the strengthening of South-South and North-South cooperation is necessary for the generation and sustenance of such capacities.

Prof. Salam's enthusiasm and personal contacts motivated a number of Heads of State/Government of developing nations to join hands for the establishment of the Commission. The then Prime Minister of Pakistan, H.E. Mrs. Benazir Bhutto, agreed to the proposal of Prof. Salam and gave her consent to host the Foundation Meeting of COMSATS on 4<sup>th</sup> and 5<sup>th</sup> October 1994, in Islamabad, Pakistan. The Meeting was organized by the then Ministry of Science and Technology (MoST), Government of Pakistan, in collaboration with the Third World Academy of Sciences (TWAS) (now known as The World Academy of Sciences) and the Third World Network of Scientific



H.E. Ms. Benazir Bhutto, the then Prime Minister of Pakistan, at the foundation meeting of COMSATS (1994)



Organizations (TWNSO) (renamed as the Consortium on Science, Technology and Innovation for the South (COSTIS)). COMSATS was given the mandate to work for science-led socio- economic uplift of the developing countries through appropriate applications of science and technology.

The Prime Minister of Pakistan was elected as the first Chairperson of COMSATS during the Foundation Meeting. The Chairpersonship was later rotated to President of Republic of Ghana during the 2nd General Meeting of the Commission (16-17 April 2012, Islamabad, Pakistan). The President of Ghana, Hon. Nana Addo Dankwa Akufo-Addo, was re-elected as the Chairperson during the 3<sup>rd</sup> General Meeting of the Commission (27-28 October 2015, Accra, Ghana).

## MEMBER STATES

Currently, COMSATS comprises of 27 developing countries located in the continents of Africa, Asia and Latin America. These countries have diverse social, cultural, economic, political, and educational backgrounds, and also differ greatly in their scientific and technological potentials. Membership of COMSATS is open to all developing countries.



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



Yemen



Zimbabwe

### Geographical Location of COMSATS Member States (flags) and Centres of Excellence (pins)



**COMSATS Secretariat Building in Islamabad**



## OBJECTIVES

COMSATS has the following mission and objectives:

- To sensitize the countries in the South to the centrality of science and technology in the development process, to the adequate resource-allocation for research and development, and to the integration of science and technology in the national and regional development plans;
- To support the functioning and activities of the Network of International Science and Technology Centres of Excellence for Sustainable Development in the South, established at the foundation meeting of the Commission;
- To support other major initiatives designed to promote indigenous capacity in science and technology for science-led sustainable development, and to help mobilising long-term financial support from international donor agencies and from Government/Institutions in the North and the South to supplement the financing of international scientific projects in the South;
- To provide leadership and support for North-South and South-South cooperative schemes in education, training and research, such as the proposal to set up programmes of scholarships for research at Centres of Excellence in the South; and
- To support the relevant programmes and initiatives of major scientific organizations working for the development and promotion of science and technology in the South.



Chairperson  
Consultative Committee  
**Mr. Ghulam Muhammad Memon**  
Federal Secretary, Ministry of Science &  
Technology, Pakistan

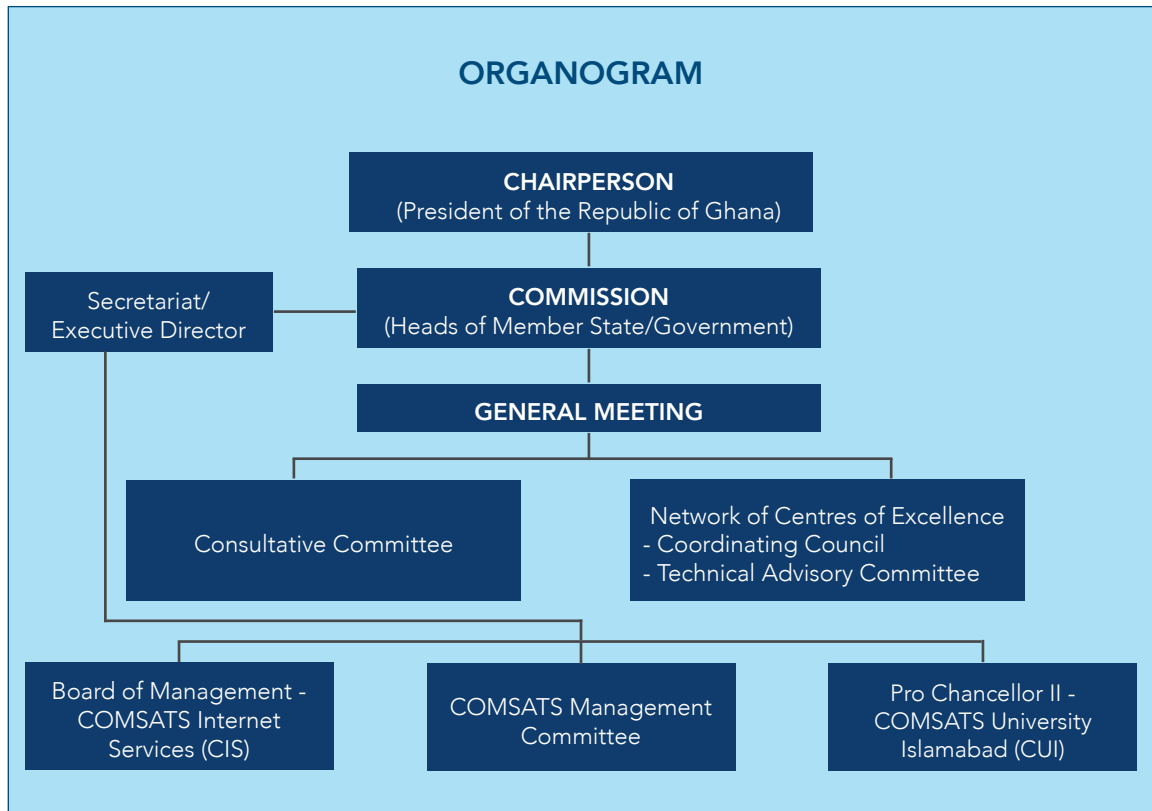


Chairperson  
Coordinating Council  
**Prof. Dr. Ashraf Shaalan**  
Former President, National Research  
Centre (NRC), Egypt

## ORGANIZATIONAL STRUCTURE

COMSATS' operations are undertaken through a simple but effective organizational structure that is comprised of the following statutory bodies:

- a) The General Meeting of the Commission;
- b) The Consultative Committee;
- c) The Network of International Science and Technology Centres of Excellence for Sustainable Development in the South; and
- d) The Secretariat of the Commission.



### a) The General Meeting

The Commission, currently comprising of Heads of State/Government of COMSATS' twenty-seven member countries, is the apex body of the organization that formulates the overall policy and provides political support of the Member States for the working of the organization.

The first General Meeting of the Commission was held in 1994 that led to the establishment of COMSATS itself. Since then, two more General meetings have been held in Islamabad (April 2012), and Accra (October 2015), respectively. The members may appoint nominees to attend the meeting of the Commission, which is to be held at least within a period of three years. The intergovernmental Agreement stipulates the election of a new Chairperson from among the Member States every three years on rotation basis.



### b) The Consultative Committee

The Consultative Committee of COMSATS comprises of the national “Focal Points”, which are the designated relevant Ministries of Member States of COMSATS. The Focal Point of the Member State hosting COMSATS Secretariat is the ex-officio Chairperson of the Committee. The Committee is empowered to make decisions on all matters affecting the Commission and the Network in the light of policy guidelines adopted by the General Meeting.

### c) **The Network of International S&T Centres of Excellence**

COMSATS' major source of scientific and technological strength stems from its Network of International S&T Centres of Excellence. The Network was established during the Foundation Meeting of COMSATS with the objective of assisting the countries of the South to build and sustain a critical mass of world-class scientists and technologists and to utilize their expertise for expediting science-led sustainable development. COMSATS' Network currently comprises of 24 reputed scientific research/academic institutions from the South. These Centres of Excellence have outstanding scientific capacity to participate in the exchange of scientific know-how and sharing of technologies. COMSATS' Member States have been greatly benefiting from the Network through capacity-building activities, such as short and long trainings; seminars, workshops and symposia; postgraduate scholarships; faculty and expert-exchange; technical meetings; and other joint scientific programmes linked to socio-economic development.

The Network consists of the following Organs:

#### i) **The Coordinating Council**

The Coordinating Council comprises of the Heads of COMSATS' Centres of Excellence. The Council makes rules and regulations governing its own procedures, and approves the programmes and budget of the Network and the Secretariat. The Council meets annually.





Second Meeting of COMSATS Technical Advisory Committee, Trieste, Italy (November 2017)

## ii) The Technical Advisory Committee

COMSATS Technical Advisory Committee comprises of 10 internationally renowned experts. The nominations for this Committee are made by The World Academy of Sciences (TWAS) and approved by the Coordinating Council. The Committee provides expert advice and technical foresight for various programmes and activities of the Network, in view of the rapidly changing global environment, expanding technological frontiers and new challenges for South.

## d) The Secretariat

Permanently based in Islamabad (Pakistan), COMSATS Secretariat performs the function of being the Secretariat to the Commission and the International Network of S&T Centres of Excellence.

The Secretariat is headed by an Executive Director, appointed by Prime Minister of Pakistan. The Executive Director is assisted by a Management Committee for decision making on the technical, administrative, financial and policy matters of the Secretariat. The Executive Director is the Secretary to the Commission, the Consultative Committee and the Coordinating Council. The incumbent also chairs the Board of Management of COMSATS Internet Services (CIS), Pakistan, and the Board of Governors of COMSATS University Islamabad (CUI), Pakistan.

## THRUST AREAS

Information and Communication Technologies (ICTs)

Internet Security

Natural Products Sciences

Agriculture, Food Security and Biotechnology

Climate Change and Environmental Protection

Nanotechnology

Materials Science

Mathematical Modeling

Science Diplomacy

Renewable Energy Technologies

S&T Policy and National Innovation Systems

Sustainable Development Goals (SDGs)

Telehealth and Pandemic Response

## FLAGSHIP PROJECTS

In the early years of its operations, COMSATS launched three projects in the host country of its Secretariat. These projects involved provision of reliable Internet services, high-quality education in information technology, and utilization of Internet as a means of delivering healthcare services. These pioneering initiatives, two of which have become full-fledged institutions, are designated as 'Flagship Projects' of COMSATS.

### COMSATS University Islamabad (CUI), Pakistan

Realizing the importance of high-quality IT education in the process of creating 'Information Society', COMSATS Institute of Information Technology (CIIT) was established by COMSATS as a project in 1998. The Institute has since become a major public-sector university, COMSATS University Islamabad (CUI), with fully functional campuses in 7 cities of Pakistan that offer more than 100 graduate and postgraduate programmes in 22 academic departments.

CUI has quite a vibrant and robust internationalization agenda both in order to benefit from and to extend to others the fruits of education, research and international



COMSATS University Islamabad, Islamabad Campus

engagement across the globe.

In the newly announced international rankings, CUI has yet again secured a position as one of the leading institutions for higher education. According to TIMES Higher Education (THE) world universities rankings 2022, CUI has been placed among 801-1000 world best universities.

The Institute has been ranked among 1001-1200 world best universities as per QS World Universities Rankings 2022 and 137th in QS Asian Universities Rankings 2022. CUI offers scholarships to students from COMSATS' Member Countries, for studies at its various campuses.

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



## COMSATS Internet Services (CIS), Pakistan

COMSATS Internet Services (CIS) is the pioneer Internet Service Provider (ISP) of Pakistan operating since 1996. It has operations in 19 cities of the country. CIS is a diversified ISP offering a number of core and value-added services. At present, CIS offers nine different branded services known as 'The Colors of CIS'. These include: Tornado™ (Wireless links), Comspeed™ (Fiber connectivity), and Hawaii™ (domain, hosting, and VPS); and value-added services: Hurricane™ (On-demand broadband), Prism™ (Website development), Viacon™ (Video-conferencing), Comtrain™ (IT training), and Commeeting™ (Web conferencing). CIS has customers all over the country including individuals, government organizations, private enterprises, foreign missions, and educational institutions.

CIS is also executing Telehealth project through a Network of Telehealth clinics. The Network comprises of a number of Telehealth clinics which have been functioning and successfully operating by means of rural Basic Health Units (BHUs) located in the vicinities of Jhelum and remote areas of Balochistan province of Pakistan. All these clinics are fully equipped with the latest digital diagnostic equipment including vital sign monitor, digital stethoscope, examination camera, ultrasound probe and ENT scope. These clinics are further linked with CIS Telehealth Center Islamabad through live video conferencing for medical/specialist consultation. More than 100,000 patients have been examined through the system.

CIS is also collaborating with federal and provincial government institutions of Pakistan for establishment and maintaining Telehealth facilities at selected BHUs in their respective areas.

([www.comsats.net.pk](http://www.comsats.net.pk))



## COMSATS Telehealth (CTH)

COMSATS Telehealth (CTH) is another example of the significant achievements made by COMSATS over the years, whereby the socio-economic benefits are being passed on to the marginalized communities of the remote and inaccessible areas of Pakistan. Main objectives of COMSATS Digital Health/Telehealth Programme are to:



- Promote the use of latest ICTs to improve access to better healthcare for the marginalized communities;
- Utilize COMSATS' experience in telehealth and replicate its services in other parts of Pakistan and other Member States; and
- Build the capacity of healthcare professionals serving marginalized communities in remote areas.

Since the pilot phase of its Digital Health Programme in Gujar Khan (2001), COMSATS has been actively playing its role in the development of Telehealth in Pakistan through service provision and advocacy. Full scale Telehealth services through COMSATS Internet Services are now being provided in various areas of Pakistan, especially remote areas of Balochistan Province (like Mastung, Jafarabad, Washuk etc) and Jhelum. More than 100,000 patients have benefitted from the tele-consultations given by doctors and specialists under this programme.

In addition to tele-consultations, capacity-building of the doctors in rural areas, medical professionals and other stakeholders in Digital Health (specifically Telehealth) is one of the key features of CTH activities. In order to further the support of COMSATS Digital Health activities, a web-portal to maintain and transfer patient data has been developed by COMSATS' eHealth team. This is the first of its kind web-based software in Pakistan.

Awareness and advocacy of telehealth has been the mainstay of COMSATS Telehealth. It has built partnership with organizations such as International Development Research

Centre (IDRC), Canada; Government of Pakistan; IT Board of KPK Government; National Disaster Management Authority (NDMA); Yaran-e-Watan Initiative; Human Development Foundation (HDF); People's Primary Health Initiative (PPHI); Baltistan Health and Education Foundation (BHEF); and eHealth Association of Pakistan (eHAP) for its Digital Health activities. The programme serves as a source of inspiration for many Digital Health projects throughout Pakistan and played a significant role during the Pandemic.

[www.ehealthcomsats.com](http://www.ehealthcomsats.com)).



CTH caters to a number of issues relating to Global Health Paradigm including Mental Health

## INTERNATIONAL PROGRAMMES AND ACTIVITIES

The South-South and North-South cooperation programmes of COMSATS are in various cross-cutting themes, including information and communication technologies (ICTs), environmental sciences, nanotechnology, biotechnology, renewable energy technologies, internet security, mathematical modelling, telemedicine, repair and maintenance of scientific instruments, etc.

Key programmes and projects of COMSATS relate to the following:

### 1. Sustainable Development

COMSATS' original mission, aims and objectives envisaged on its inception directly pertain to UN's inclusive development agenda, such as MDGs and later the 2030 Global Agenda popularly known as the Sustainable Development Goals (SDGs). Resting on SDGs' advocacy and their integration, as far as possible in the ongoing activities, COMSATS has remained cognizant of its catalyst role in the realm of sustainable development objectives. For meaningful realization and achievement of the SDGs, COMSATS is aligning its plans and activities increasingly for the accomplishment of goals and targets relevant to its mandate. In this regard, recent activities that transpired from this focus related to water and climate crises, sustainable agriculture, leadership, and health.



Such events result in creating awareness, harnessing available potential and gaining support for relevant interventions and decisions, thus aiding the overall process for achieving the goals, as well as bringing forward possible solutions for addressing relevant challenges.



## 2. Capacity-Building Events

COMSATS has been organizing and sponsoring a number of capacity-building events in various themes of S&T of direct relevance to the socio-economic needs of its Member States. These events are organized in collaboration with various international partner organizations and Centres of Excellence. Some of the recent events organized by COMSATS are listed below:

- Third International Training Course on Industrial Synthetic Biotechnology (online), 12th-23rd December 2022
- International Webinar on Digital Health, the New Normal: Innovation and Acceptance in Africa, 7th December 2022
- World Science Day for Peace and Development 2022, 16th November 2022, Islamabad, Pakistan
- Experts Roundtable Meeting: Setting the Scene in Terms of National Priorities, Opportunities and Challenges to Boost Bankable Climate Change Projects, 16th November 2022, Shareem El Shiekh, Egypt
- Mentoring and Coaching for the Identification and Preparation of Bankable Climate Change Adaptation & Mitigation Projects, 13th - 16th November 2022, Cairo, Egypt
- Fifth Term of ANSO-BIDI School for Innovation and Entrepreneurship, Sustainable Development and Leadership Enhancement (2022), 9th November 2022, Beijing, China
- An Interactive Dialogue on Multi-stakeholder and Integrated Approach to Climate Resilience Finance, 9th





November 2022, Sharm El Sheikh, Egypt (on the sidelines of COP27 – Green Zone)

- CCIB Workshop on 'Green Biomanufacturing of Bio-based Chemicals', 28th October 2022, Beijing, China
- Workshop on Engaging University Faculty for Mental Health Wellbeing of Youth, 25th October 2022, Islamabad, Pakistan
- Webinar on South-South Cooperation and Climate Diplomacy, 21 September 2022
- CCIB Workshop on Green Biomanufacturing of Bio-based Materials, August 31, 2022, China
- Webinar on Industry 4.0 driven Climate-Smart Agriculture: Challenges and Opportunities for Developing Countries, 24 August 2022
- CCIB Workshop on 'Bioenergy: a Road to Carbon Peaking and Carbon Neutrality', 14<sup>th</sup> June 2022, China
- Webinar on 'South Views on Post-2020 Global Biodiversity Framework', 24<sup>th</sup> May 2022
- Fourth Term of ANSO-BIDI School for Innovation, Sustainable Development and Leadership Enhancement, 4<sup>th</sup> May 2022, China
- CCIB Workshop on 'Crop Microbiome and Sustainable Agriculture', 13<sup>th</sup> April 2022, China
- Webinar on Building Climate Resilient Health Systems in the Global South, 6<sup>th</sup> April 2022

### 3. Science Diplomacy

COMSATS has been engaged in advocacy of Science at all levels through its different organs, activities of COMSATS Secretariat as well as other number of means. However, COMSATS Science Diplomacy programme was formally institutionalized in 2015 after an MoU with The World Academy of Sciences (TWAS). The recent launch of the COMSATS' Science Diplomacy Programme is a new approach towards addressing needs of scientists, diplomats, journalists and policy-makers to build peace among nations using scientific knowledge and principles for allowing informed decision making.

The programme entails a COMSATS' Science Ambassador Scheme, a series of lectures on Science contributing to International Diplomacy, Discussion forums on contemporary issues affected by science and other capacity building activities in the planes of Science popularization, advocacy, and diplomacy.



Participants of Talk on "UNFCCC Kyoto Protocol and Beyond" organized under COMSATS' Science Diplomacy Programme

### 4. International Thematic Research Groups (ITRGs)

COMSATS' ITRGs are undertaking joint research projects in various fields of science and technology, in order to jointly address the common issues and challenges facing socio-economic development of the Member States. These groups comprise of research



scientists belonging to COMSATS' Member States and other developing countries. The six ITRGs have the following themes: (i) Information and Communication Technologies (led by CUI-Pakistan); (ii) Agriculture, Food Security and Biotechnology (led by University of Khartoum and IRCC-Sudan); (iii) Natural Products Sciences (led by ICCBS-Pakistan); (iv) Climate Change and Environmental Protection (led by ICCES-China); (v) Mathematical Modeling (led by NMC-Nigeria); and (vi) Renewable Energy (led by IROST-Iran). Apart from joint projects, COMSATS' ITRGs provide a platform for expert-exchange and sharing of laboratory resources among the member institutions. Moreover, opportunities of short-term training are provided to the group members in order to build their capacity in the target area and enable them to perform their research assignments more effectively. In the case of ITRG meetings, expert-exchange and short-term trainings, the international travel expenses of the group members are covered by COMSATS, while local hospitality is provided by the host institution.

## 5. Postgraduate Scholarships and Post-doctoral Fellowships

A number of postgraduate scholarships are offered through COMSATS' platform to students and researchers of COMSATS' Member Countries to study at Organization's Centres of Excellence. In addition, as part of COMSATS' expert-exchange programme, scientists of the developing countries are offered fellowships to work at any Centre of Excellence for short-term academic/research activity in relevant fields of S&T. Students from The Gambia, Jordan, Nigeria, Palestine, and Sudan have been benefitting from

these scholarships and fellowships.

At present, hundred (100) postgraduate and two (02) PhD scholarships are available at CUI, Pakistan, and KazNU, Kazakhstan, respectively. Moreover five (05) short-term postdoctoral fellowships and five (05) fellowships are available at NRC, Egypt and ICCBS, Pakistan, respectively. Long-term (1-2 years) and short-term (less than 6 months) fellowships for foreign scholars for collaborative research are also available at TIB, China. COMSATS Centres of Excellence in China, ICCES and TIB are also offering postgraduate scholarships and postdoctoral fellowships under PIFI Programme.

## 6. Short-term Training Programmes

With a view to build capacity of the scientific institutions of Member States, scientists and technicians are provided short-term hands-on trainings on a particular instrument at relevant Centres of Excellence.

## 7. Institution-Building

Scientific institution-building has been a strong suit of COMSATS, since quite early after its inception. Two such success stories are in the host country: an ISP (COMSATS Internet Services) and a higher education institution in IT (COMSATS University Islamabad).

A Karachi-based institution, COMSATS-COMSTECH-MTM-IT Centre (1999) and one in Syria, Syrian-COMSATS-COMSTECH Information Technology Centre (2001), were also established later, in the fields of Information Technology. The working scope of the Centre in Syria encompasses training in software and hardware, e.g., development of networking software, Internet applications and e-commerce.



To provide an institutional platform for coordination, facilitation, advocacy, and regional and international collaboration in Climate Change, COMSATS has set up a Network of over a dozen COMSATS Centre for Climate & Sustainability (CCCS) in its member states, including Bangladesh, Colombia, China, Egypt, The Gambia, Ghana, Iran, Jamaica, Jordan, Kazakhstan, Nigeria, Pakistan, Palestine, Sri Lanka, Sudan, Syria, Tanzania, Tunisia, Turkey, and Uganda.

COMSATS in collaboration with the American Institute of Pakistan Studies (AIPS) has also established an International Centre for Training and Development (ICTD). The Centre provides trainings by foreign experts in areas of climate change, intellectual property rights, higher education and leadership, and energy policy.

In collaboration with its Centre of Excellence in China, the Tianjin Institute of Industrial Biotechnology (TIB), COMSATS has also established COMSATS Joint Centre for Industrial Biotechnology (CCIB) to serve as a comprehensive, integrated, open and shared platform to promote industrial biotechnology cooperation and bio-industry development among COMSATS Member States.

## **8. Web-portals**

Cognizant of the need for having easily accessible digital resource of the ongoing research activities for S&T cooperation, COMSATS embarked upon the programme of developing information gateways in collaboration with its partner organizations. The programme aims to facilitate and foster scientific and institutional networking and to bring about socio- economic development. In 2006, COMSATS in collaboration with ISESCO, developed the web-portal 'IWSN' — the Islamic World Science Net ([www.icpsr.org.ma](http://www.icpsr.org.ma)). To make the portal more useful and enhance its scope, French version of the portal was developed and launched in 2012. The portal was maintained till 2016.

In 2001, COMSATS provided its technical expertise to UNIDO for the development of 'Industrial Information Network (IIN)', a web-portal that aimed to provide one-window operation to small and medium enterprises (SMEs) for business-to-business transactions. The expertise and experience thus gained by COMSATS can be extended to other member countries on request.

## **9. Incentivizing Research and Development**

COMSATS is a privileged partner of Khwarizmi International Award of IROST, Iran, since

2000. The aim to support this initiative over the years is encouraging and motivating best practices and achievements in science and technology. Every year, COMSATS sponsors the cash award and certificates of the first and second prize winners of the Award.

## 10. Distinguished Professorship Scheme

COMSATS' Distinguished Professorship Scheme aims to build capacity of R&D organizations and universities of Member States through invited lectures delivered by invited group of renowned scientists and professors. In this regard, the travel cost of the visiting professor is borne by COMSATS while local hospitality is provided by the host institution.

## INTERNATIONAL COOPERATION

For the benefit of its Member States, COMSATS maintains close links with world renowned S&T institutions and international organizations working in various areas relevant to socio-economic development and institution building. The size and scope of COMSATS' international cooperation varies from national to regional to international levels. The usual mode of such cooperation is the sponsorship of projects, on-job trainings, workshops, post-graduate education scholarships, expert visits, as well as technical consultancies. The international cooperation is facilitated through bilateral



Diplomatic engagements with member and non-member states help sensitize the stakeholders on COMSATS' mission and activities related to its mandate

and multilateral Memoranda of Understanding (MoU), Agreements and Letters of Intent. Presently, there are over 67 MoU signed with a number of national/international collaborators. Horizons of these collaborations are being expanded to the North and avenues of cooperation are being explored with the European Union and institutions in the UK, such as Association of Commonwealth and British Council, as well as other UN development arms, such as UNESCAP.

Among others, COMSATS has strong working relations with the following organizations:

- Abdus Salam International Centre for Theoretical Physics (AS-ICTP);
- Alliance of International Science Organizations (ANSO);
- American Institute of Pakistan Studies (AIPS);
- Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre);
- Chinese Academy of Sciences (CAS);
- Commonwealth Secretariat;
- European Commission (EC);
- International Centre for Genetic Engineering and Biotechnology (ICGEB);
- International Development Research Centre (IDRC);
- Islamic Educational, Scientific and Cultural Organization (ISESCO);
- OIC Standing Committee on Scientific and Technological Cooperation (COMSTECH);
- Organisation of Islamic Cooperation (OIC);
- Oman National Computer Emergency Readiness Team (OCERT);
- Pacific Islands Development Forum (PIDF);
- South Centre;
- The World Academy of Sciences (TWAS);
- University of Sustainability;
- United Nations Development Programme (UNDP);
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP);
- United Nations Educational, Scientific and Cultural Organization (UNESCO);
- United Nations Industrial Development Organization (UNIDO);
- United Nations Office for South-South Cooperation (UNOSSC).

## INFORMATION DISSEMINATION

The main repository of information about COMSATS is its website, [www.comsats.org](http://www.comsats.org). COMSATS strongly believes in timely dissemination of credible scientific and technological information to its Member States and other interested international organizations. In addition, useful information about scientific events, scholarships, financial support opportunities for technical projects, etc., is regularly circulated to the concerned organizations to facilitate their work. COMSATS regularly publishes a bi-monthly Newsletter, which, inter alia, contains up-to-date information on the undertakings of COMSATS Secretariat, COMSATS Member States and Centres of Excellence, important scientific and technological developments from around the globe and announcements of S&T related international conferences and symposia, fellowship/scholarships opportunities for developing countries scientists.

COMSATS' scientific journal, 'Science Vision', features research and review articles having a focus on the impact of science and technology on sustainable socio-economic development. Another important set of publications brought out from time-to-time



by COMSATS is the 'COMSATS' Series of Publications on Science and Technology'. COMSATS has produced in this Series a number of compilations of original and research-based articles on a number of S&T issues relating to sustainable socio-economic development. Proceedings of COMSATS' national and international events, having the focus of promoting Science & Technology and highlighting policy matters and best practices, are now included in this Series.

COMSATS now has a devoted page on UNOSSC website giving a number of agencies and development sector organization from around the world access to COMSATS' programmes.

Additionally, a devoted web-page "Corona and Sustainable Development" was developed by COMSATS to serve as a repository of information on the pandemic with respect to elements and entities relevant to COMSATS as well as to showcase the relevant strength and developments at COMSATS' Centre of Excellence and the rest of the world. ([http://comsats.org/?page\\_id=6712](http://comsats.org/?page_id=6712))

Some of the titles published by COMSATS are:

- COMSATS' Work on Sustainable Development Goals (October 2019)
- Profiles of COMSATS' Network of International S&T Centres of Excellence (January 2019);
- South-South and Triangular Cooperation - COMSATS' Experience (February 2019);
- Report on 'Seminar on SDGs Implementation: the Collaboration among Universities (December 2018);
- Report on 'Seminar on Sustainable Development Goals: The Role of Universities' (July 2018);
- Profiles of COMSATS' Network of International S&T Centres of Excellence (October 2017);
- Proceedings of International Symposium on Light and Life (December 2016);
- An Introduction to COMSATS Coordinating Council and the Network of Centres of Excellence (August 2016);
- COMSATS-TWAS Excellence in Science: International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal (May 2016);
- One Hundred Reasons to be a Scientist (Urdu Translation) (January 2016);
- AS-ICTP: 50 Years of Science for the Future - Views from Islamabad (September 2015);
- COMSATS-TWAS Excellence in Science: Centro Internacional de Física (CIF), Bogota, Colombia (October 2013);

- COMSATS-NAM S&T Centre 'Nanotechnology in the Edge of Convergence' (May 2013);
- Policies and Strategies for Successful Implementation of Employment-Generating Programmes in Renewable Energies, Biotechnology, Agriculture, Environment and ICTs (September 2011);
- Challenges for Socio-economic Development in Pakistan: Role of Science and Technology (June 2010).

COMSATS in collaboration with TWAS is bringing out a series of publications titled 'Excellence in Science' based on profiles of its International S&T Centres of Excellence, in order to appropriately publicize their scientific potential and technical capacity. The series aims to identify and document the strengths and weaknesses of these institutions in order to put their scientific capacity to a better use in pursuance of South-South and North-South cooperation. Under this cooperation, institutional profiles of ICIMOD (2016), CIF- Colombia (2013) and ICCBS-Pakistan (2011) have so far been published. COMSATS has been cooperating with international organizations to bring out joint publications. Some of these include:

- Nanotechnology: In the Edge of Convergence, joint publication with NAM S&T Centre, India (May 2013);
- Profiles of Institutions for Scientific Exchange and Training in the South, joint publication with TWAS, Italy (2007); and
- Directory of Universities and Science and Technology Research Organizations in Islamic Countries, joint publication with ISESCO, Morocco (2006).

## FINANCES

The Secretariat of COMSATS was established in Islamabad through a generous grant and a building from the Government of Pakistan. Its recurring operational expenditure is also borne by the Government of Pakistan through annual funds. The Secretariat is authorized to receive Annual Membership Contributions (AMC) from the Member States on voluntary basis. These funds are kept by COMSATS Secretariat as Trust Fund of each contributing Member State and are utilized for the scientific and technical activities involving respective countries. The 'Statements of Accounts' of Member States are presented before the Management Committee, as well as the Coordinating Council during their meetings. The accounts also undergo annual external audit by the reputed firms. Efforts are being made to strengthen the COMSATS' Endowment Fund created in 2012 with support from all Member States.

## LIST OF FOCAL POINTS IN COMSATS MEMBER STATES



**H.E. Mr. Yeafesh Osman**  
Minister  
Ministry of Science and Technology  
Dhaka, Bangladesh.



**H.E. Mr. Wang Zhigang**  
Minister  
Ministry of Science and Technology,  
Beijing, China.



**H.E. Dr. Arturo Luna**  
Minister  
Ministry of Science, Technology and Innovation  
Bogotá D.C., Colombia.



**Prof. Dr. Mahmoud M. Sakr**  
President  
Academy of Scientific Research and  
Technology  
Cairo, Egypt.



**H.E. Prof. Pierre Gomez**  
Minister  
Ministry of Higher Education, Research, Science  
and Technology  
Kotu, The Gambia.



**H.E. Dr. Kwaku Afriyie**  
Minister  
Ministry of Environment, Science, Technology  
and Innovation  
Accra, Ghana.

*... List of Focal Points in COMSATS' Member States*



**H. E. Prof. Mohammad Ali Zolfigol**  
Minister  
Ministry of Science, Research and  
Technology  
Tehran, Iran.



**Hon. Daryl Vaz**  
Minister  
Ministry of Science, Energy and  
Technology  
Jamaica, West Indies.



**Hon. Dr. Abdullah Al-Mousa**  
Secretary General  
Higher Council for Science and  
Technology (HCST)  
Amman, Jordan.



**H.E. Mr. Askhat Aymagambetov**  
Minister  
Ministry of Education and Science  
Astana, Kazakhstan.



**Mr. Jang Chol**  
President  
State Academy of Sciences  
Pyongyang, Korea, D.P.R.



**H.E. Prof. Abdellatif Miraoui**  
Minister  
Ministry of Higher Education, Scientific Research  
and Innovation  
Rabat, Morocco.

*... List of Focal Points in COMSATS' Member States*



**Hon. Dr. (Sen.) Adeleke Olurunnimbe Mamora**  
Minister  
Federal Ministry of Science, Technology and Innovation  
Abuja, Nigeria.



**Dr. Ghulam Muhammad Memon**  
Federal Secretary  
Ministry of Science and  
Technology  
Islamabad, Pakistan.



**H.E. Prof. Mahmoud Abu Mowais**  
Minister  
Ministry of Higher Education and Scientific  
Research  
Ramallah, Palestine



**Hon. Dr. Renato U. Solidum, Jr**  
Secretary  
Department of Science and  
Technology (DOST)  
Manila, Philippines.



**Hon. Cheikh Oumar Anne**  
Minister  
Ministry of Higher Education, Research  
and Innovation  
Dakar, Senegal.



**H.E. Farah Sheikh Abdulqadir**  
Minister  
Ministry of Education, Culture and  
Higher Education  
Mogadishu, Somalia

*... List of Focal Points in COMSATS' Member States*



**H.E. Dr. Ramesh Pathirana**  
Minister  
Ministry of Industry  
Colombo, Sri Lanka.



**H.E. Prof. Mohammed Hassan Dahib**  
Minister  
Ministry of Higher Education and  
Scientific Research  
Khartoum, Sudan.



**H.E. Prof. Dr. Bassam Bashir Ibrahim**  
Minister  
Ministry of Higher Education and Scientific Research  
Damascus, Syria.



**Hon. Prof. Adolf Mkenda**  
Minister  
Minister of Education, Science & Technology  
Dodoma, Tanzania.



**H.E. Prof. Moncef Boukthir**  
Minister  
Ministry of Higher Education and Scientific  
Research  
Tunis, Tunisia.



**H.E. Prof. Dr. Hasan Mandal**  
President  
The Scientific and Technological Research  
Council of Türkiye (TUBITAK)  
Ankara, Türkiye

*... List of Focal Points in COMSATS' Member States*



**Dr. Martin Ongol**  
Executive Secretary (Acting)  
Uganda National Council for S&T  
Kampala, Uganda.



**Hon. Prof Dr. Khalid Ahmed Alwosabi**  
Minister  
Ministry of Higher Education and Scientific  
Research  
Mansoura, Yemen.



**Hon. Prof. Amon Murwira**  
Minister  
Ministry of Higher and Tertiary Education,  
Science and Technology Development  
Harare, Zimbabwe.

## LIST OF MEMBERS OF COMSATS NETWORK OF INTERNATIONAL S&T CENTRES OF EXCELLENCE



**Prof. Dr. Md. Aftab Ali Shaikh**  
Chairman  
Bangladesh Council of Scientific and  
Industrial Research (BCSIR)  
Dhaka, Bangladesh



**Dr. Cristhiane Oliveira da Graça Amancio**  
Director General  
Embrapa Agrobiologia  
Rio de Janeiro, Brazil.



**Prof. Lin Zhaohui**  
Director  
International Center 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. Hussein Darwish**  
Acting President  
National Research Centre (NRC)  
Cairo, Egypt.

*... List of Members of COMSATS Network of International S&T Centres of Excellence*



**Prof. Herbert Robinson**

Vice Chancellor  
University of The Gambia  
Serekunda, The Gambia



**Prof. Paul Pinnock Bosu**

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



**Prof. Dr. Mochamad Ashari**

Rector  
Sepuluh Nopember Institute of Technology  
(ITS)  
Indonesia.



**Prof. Hassan Zamanian**

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.

*... List of Members of COMSATS Network of International S&T Centres of Excellence*



**Prof. Dr. Zhanseit Tuimebayev**  
Rector  
Al-Farabi Kazakh National University (KazNU)  
Almaty, Kazakhstan.



**Prof. Promise Mebine**  
Director/Chief Executive  
National Mathematical Centre (NMC)  
Abuja, Nigeria.



**Prof. Dr. Muhammad Tabassam Afzal**  
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  
Jerusalem, Palestine

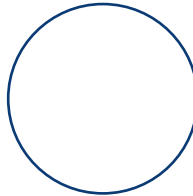


**Prof. Ahmadou Aly MBAYE**  
Rector/President of the Assembly of  
Université Cheikh Anta Diop de Dakar  
(UCAD)  
Dakar, Senegal

*... List of Members of COMSATS Network of International S&T Centres of Excellence*



**Dr. Radhika Samarasekera**  
Director General  
Industrial Technology Institute (ITI)  
Colombo, Sri Lanka.



**Dr. Itmad Awad Al-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 M. 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



**H.E. Prof. Hasan Mandal**  
President  
The Scientific and Technological Research  
Council of Türkiye (TUBITAK)  
Ankara, Türkiye

# Centres of Excellence



BCSIR-Bangladesh



Agrobiologia

Embrapa Agrobiologia-Brazil



ICCES-China



TIB-China



CIF-Colombia



NRC-Egypt



UTG-The Gambia



CSIR-Ghana



ITS-Indonesia



IROST-Iran



ICENS-Jamaica



RSS-Jordan



KazNU-Kazakhstan



NMC-Nigeria



CUI-Pakistan



ICCBS-Pakistan



AQU-Palestine



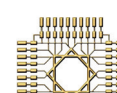
UCAD-Senegal



ITI-Sri Lanka



IRCC-Sudan



HIAST-Syria



TIRDO-Tanzania



CERTE-Tunisia



TÜBİTAK-Türkiye



**COMSATS Secretariat**

Shahrah-e-Jamhuriat, G-5/2, Islamabad, Pakistan

Ph: (+92-51) 9214515-7, Fax: (+92-51) 9216539

URL: [www.comsats.org](http://www.comsats.org), Email: [comsats@comsats.org](mailto:comsats@comsats.org)



[COMSATSofficial/](https://www.facebook.com/COMSATSofficial/)



[comsats\\_en](https://twitter.com/comsats_en)



[comsats\\_en](https://www.instagram.com/comsats_en)



[company/comsats](https://www.linkedin.com/company/comsats)



[COMSATSSecretariat](https://www.youtube.com/COMSATSSecretariat)