



Chairperson COMSATS, President of Ghana, hosted high-level meeting of COMSATS attended by two Presidents, a VP and seven Ministers (page 08)

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From the Executive Director's Desk

The beginning of the year 2020 has been grim and tormenting with COVID-19 posing a momentous and historical challenge at global level. As the death tolls rose and the sufferings and hardships of people intensified, states, communities and international organizations grappled with turning the tide and gearing up the systems to respond to the unprecedented situation. COVID-19 soon evolved from epidemic to pandemic bringing more misery and pain at a massive scale. The deadly virus has exposed the inadequacy of the health related infrastructure and of disaster preparedness, driving home the urgent need to not only reform the systems but address the existing structural issues. Although COVID-19 has been called the 'equalizer', the sufferings of the poor and deprived communities get accentuated due to several limitations and constraints.

Among the COMSATS' member states, it is especially painful that COVID-19 affected some with greater intensity. The Organization's valued member China was afflicted with the deadly virus first. China's efficient handling of the crisis has been inspirational firm resolve and demonstrably good preparedness of the Government to combat it with full force. Other member states, Iran, Pakistan, Turkey and Jordan, are experiencing the onslaught of the disease while other members of the COMSATS' fraternity are also tackling the problem with the hindsight of those that have already experienced the

outbreak. Our hearts go out to all those who have been victims of this disease. We express our solidarity with the governments and peoples of COMSATS' member states and the global community at large.

The COVID-19 outbreak has put to test economic infrastructures catering to the five P's of UN's 2030 Global Agenda; 'peace' and 'prosperity' of this 'planet' and its 'people' and 'partnerships', while also presenting a plethora of opportunities for the last one of these. The pandemic has called for urgent action on grand scales for reorienting the health systems and digital coverage as well as for scientists and medical experts all over the world to cooperate on understanding the future trends and solutions. International cooperation in Science, Technology and Innovation (ST&I) has never been more pertinent, relevant and urgent.

ST&I-led sustainable development is the need of the hour that necessitates more and faster innovative approaches and solutions. COMSATS Secretariat urges all the institutions in member countries, especially the focal points Centres of Excellence, to gear up their initiatives and efforts in contributing towards this endeavor.

Hopefully, we would be reporting success of such initiatives as news of success stories in the future issues of the Newsletter harbingering safer times very soon. For now, it is hoped that the contents of this issue come as good tidings for the readers.

HIGHLIGHTS FROM COMSATS SECRETARIAT

International Cooperation

Sepuluh Nopember Institute of Technology (ITS), Indonesia

A two-member delegation from the Sepuluh Nopember Institute of Technology (ITS), Indonesia, visited Pakistan, from 29th January – 1st February 2020, with a view to explore opportunities of collaboration with COMSATS' Network members in Pakistan, i.e., COMSATS University Islamabad (CUI), Islamabad, and the International Centre for Chemical and Biological Sciences (ICCBS), Karachi. Apart from visits to the afore-mentioned Centres, the delegates, Prof. Bambang Pramujati (Vice Rector-IV of Research, Innovation, Cooperation, and Alumni at ITS) and Dr. Sri Fatmawati (Assistant Professor at Department of Chemistry, ITS) held important meetings at COMSATS Secretariat and Embassy of Indonesia in Islamabad.

During the meeting held at COMSATS Secretariat, Executive Director COMSATS, Dr. S. M. Junaid Zaidi, briefed the delegation about the role that COMSATS is playing for bringing the developing countries of the South at par with the North through effective utilization of S&T. He highlighted some of COMSATS' initiatives in this context and shared the organization's future

aspirations regarding establishment of high-tech centres and laboratories in its member states in collaboration with their governments and international partner organizations.

Moreover, Dr. Zaidi pointed out the key benefits of joining COMSATS' Network as its Centre of Excellence that include participation in COMSATS' international programmes in different areas of sustainability. He also invited ITS to avail various opportunities of scholarships/ fellowships available within COMSATS' Network and encouraged the Institute to offer some for COMSATS' member states. Further during the meeting, Mr. Tajammul Hussain, Advisor (Programmes), noted the potential of collaboration that exists between ITS and other COMSATS' Centres in the area of electric vehicles. Mr. Farhan Ansari, Sr. A. D. Programmes and Coordinator COMSATS' Network, indicated that the organization is facilitating the scientific community of its Member States for building capacities in various cross-cutting areas, including Artificial Intelligence, Internet of Things, and robotics.

Under COMSATS' collaboration with the Alliance of International Science Organizations (ANSO), China, ITS was invited to submit proposals for collaborative research in areas of

environment, agriculture and food security, health and wellbeing, and green technology from the platform of COMSATS. Prof. Pramujati was appreciative of COMSATS' programmes and initiatives and expressed keen interest in cooperating with COMSATS and its Network in areas of mutual interest.

On 31st January 2020, the Indonesian delegation visited COMSATS University Islamabad (CUI), Islamabad, and held a meeting with the officials of the University's International Office. Apart from Mr. Ali Tawab Baloch (Head International Office) and his team, the meeting was attended by Prof. Dr. Sajid Qamar, Head of Physics Department; and Dr. Shurjeel Wyne, Head of Electrical and Computer Engineering Department of CUI.

During the meeting, presentations were made by both CUI and ITS officials followed by discussions on research commercialization and establishment of various research centres. The two parties agreed to initiate collaboration with regard to students and faculty exchanges and establishing bilateral linkages between respective international offices. The delegates were also shown around various campus facilities including Junaid Zaidi Library.

ITS' delegation also called on His Excellency Mr. Iwan Suyudhie Amri, Ambassador of Indonesia to Pakistan. During the meeting, held at the Embassy of Indonesia in Islamabad, the Ambassador was apprised of the newly established relationship between COMSATS and ITS and the Institute's potential cooperation with ICCBS and CUI.

United Nations Development Programme (UNDP)

Following the announcement of holding the 4th General Meeting and



Accra Forum (later postponed due to corona outbreak), COMSATS and the its Chair holding Government of Ghana received encouraging response from international organizations, particularly from the UN agencies including UNDP, UNOSSC, UNESCAP, etc., which expressed their interest in supporting the events.

Discussions in this regard took place with UNDP's Mr. Abdullah Alkulaib, Regional Specialist, Regional Bureau for Africa, Country Oversight Team; and Ms. Ronata, over a video conference, on 8th January 2020. From COMSATS' side, Dr. S.M. Junaid Zaidi, Executive Director; Ambassador Shahid Kamal, Advisor; Mr. Nisar Ahmad, Deputy Director; and Mr. Farhan Ansari, Senior Assistant Director (Programmes) attended the meeting.

During the meeting, Dr. Zaidi and Ambassador Kamal shed light on the objectives, expected level of participation, and anticipated outcomes of the Accra Forum. They considered the participation and support of the relevant agencies of UN crucial for realizing the objectives of the event. The UNDP officials took keen interest in the event, and expressed willingness to cooperate with COMSATS and the Government of Ghana in this regard. The two sides also discussed the specific areas of science and technology to be covered by the event.

Mr. Abdullah Alkulaib informed COMSATS' officials about UNDP's Accelerator Lab project, which focuses on scaling up the grass-root technologies for facilitating the development of countries of the South. Bearing potential for cooperation between the two organizations, the project is active in 50 countries, including 30 in African region.

UNDP Country Office in Ghana later reached out to the Government of Ghana for possible facilitation.



European Union Delegation to Pakistan

H.E. Ms. Androulla Kaminara, Ambassador of the European Union to Pakistan, visited COMSATS Secretariat on 20th February 2020. Her Excellency was accompanied by Ms. Anne Marchal, Deputy Head of Mission at the European Union Delegation to Pakistan.

Ms. Kaminara was acquainted with COMSATS' international programmes and initiatives, including COMSATS Centre for Climate and Sustainability (CCCS). It was informed that with the aim to promote research and innovation-led economic growth in its Member States, COMSATS aspires to set-up regional hubs in cutting-edge areas of science and technology. Dr. Zaidi also highlighted the role being played by COMSATS' Centres of Excellence for the materialization of such projects.

Ms. Kaminara considered it important to prioritize academic linkages in a country's policies. Emphasizing the importance of capacity building of the scientists and technicians, she considered programmes, such as Horizon 2020 of European Union (EU), important. She informed that

digitalization would be the focus of next Horizon programme of EU for which discussions are currently ongoing at EU Secretariat.

She expressed interest to work with CCCS Network member states to help attract funding and generate sustainable solutions for addressing climate crisis. She also shared the details of EU's Research and Innovation Staff Exchange (RISE) and Cofund programmes, from which COMSATS' Member States can benefit.

Engagements with Diplomatic Missions in Islamabad

Federal Republic of Somalia

Dr. S.M. Junaid Zaidi, Executive Director COMSATS, met with the Ambassador of Federal Republic of Somalia to Pakistan, Her Excellency Khadija Mohamed Almahzoumi, at the latter's office in Islamabad, on 13th January 2020.

During the meeting, the Ambassador was briefed about COMSATS' programmes including scholarships and fellowships. She was informed that in order to increase access to quality higher education and promote



cross-culture experiences among its Member States, COMSATS provides scholarships/fellowships through its international Centres of Excellence to students and researchers belonging to its twenty-seven Member States. A number of post-graduate scholarships/post-doctoral fellowships are available at COMSATS Centres of Excellence in Pakistan (COMSATS University Islamabad and International Center for Chemical and Biological Sciences), Kazakhstan (Al-Farabi Kazakh National University) and Egypt (National Research Centre).

Somalia, which is member to COMSATS since December 2017, was invited to benefit from such opportunities to help build and sustain scientific capacities that could facilitate sustainable growth in the country.

It was also established during the meeting that COMSATS would facilitate strengthening of higher education sector of Somalia. In this regard, it was proposed that a delegation comprising of Vice Chancellors and/or senior officials from universities in COMSATS' Member States could visit Somalia for a first-hand review of the sector to make informed recommendations.

Ambassador Ms. Khadija Mohammad Almahzoumi was appreciative of COMSATS' efforts for the advancement of science and education in the developing world. She expressed willingness to benefit from the various programmes of COMSATS, including scholarships, and to further cooperation in the area of higher education.

Following-up the meeting at the Embassy of Somalia, H.E. Ms. Almahzoumi along with Mr. Abdi Ibrahim Hassan, First Secretary at the Embassy of Somalia, visited COMSATS Secretariat, on 21st January 2020.

Building on the discussions of the earlier meeting, Dr. Zaidi highlighted the potential areas of mutual cooperation in S&T whereby Somalia can benefit and the country's collaborations with other countries strengthened. Dr. Zaidi proposed the idea of establishing a top-class R&D center in the field of Information Technology in Somalia, which may focus on precision agriculture, e-agriculture, early warning systems for floods and droughts, and e-education. The afore-mentioned Centre may extend its operations to research on climate change vulnerabilities, agricultural productivity, apart from skill development and

training resources.

The Ambassador expressed interest in the idea and discussed the financial and technical aspects of the afore-mentioned IT Centre. In this connection, it was agreed that the proposal from COMSATS will be forwarded to the Government authorities as well as private sector of Somalia by Embassy. The potential options of support from international donor organizations in this regard shall also be explored.

The Ambassador took keen interest in the COMSATS' Telehealth Programme and discussed the possibility of its replication in Somalia, in order to strengthen the healthcare sector of the country, by benefitting from emerging trends in Information and Communication Technology. The Ambassador was invited to visit the Telehealth facilities housed at COMSATS Internet Services.

The two sides also discussed the 25 post-graduate scholarships for Somali students for studies at COMSATS University Islamabad (CUI) in various disciplines.

Republic of Tunisia and Ukraine

The Executive Director COMSATS, Dr. S.M. Junaid Zaidi, made a courtesy call on H.E. Mr. Borhene El Kamel, newly appointed Ambassador of Tunisia to Pakistan, and H.E. Mr. Volodymyr Lakomov, Ambassador of Ukraine to Pakistan, in their respective offices in Islamabad, on 21st January 2020.

The brief meetings with the Ambassadors were mainly aimed at apprising them of COMSATS' programmes, linkages at national and international level, on-going projects and future initiatives as well as to seek the patronage of their Excellencies' offices for building and furthering the cooperation avenues between



COMSATS and their countries.

Tunisia, it was informed, is one of the eighteen founding members of COMSATS, and has participated in and benefitted from various scientific programmes of COMSATS, including scholarships, capacity-building events, and scholarly exchanges.

Ukraine's good standing in the field of Information Technology was presented as a potential link of cooperation for COMSATS that has made a mark in the domain over the years.

A key point of discussion during the meeting with the Tunisian Ambassador was cooperation in higher education sector which transpired from the briefing by Dr. Zaidi on COMSATS' Scholarship Programme. COMSATS' Network offers scholarships/fellowships to students and researchers of COMSATS' Member States with a view to increase access to quality higher education and promote cross-culture experiences.

Federal Republic of Germany

On 23rd January 2020, H.E. Mr. Bernhard Schlagheck, Ambassador of Germany to Pakistan, called on Executive Director COMSATS, Dr. S.M. Junaid Zaidi, and other senior COMSATS' officials, at COMSATS



Secretariat. The meeting held with the German Ambassador was aimed at building cooperation with Germany for seeking patronage and broadening COMSATS' international activities within the framework of triangular cooperation and United Nations 2030 Global Agenda.

During the meeting, Dr. Zaidi briefed the Ambassador about COMSATS' S&T-related engagements with different institutions and state-owned scientific departments in its Member States. H.E. Mr. Schlagheck was also apprised of COMSATS' initiatives in the field of health, ICTs, higher education and climate change as well as recent engagements with international bodies such as UNOSSC and Commonwealth.



H.E. Mr. Schlagheck lauded COMSATS for its innovative approach to bring about sustainable development in the Global South. Further during the meeting, support of the Ambassador's office was sought for the following proposals:

- Establishment of top-class research centres in COMSATS' Member States in contemporary areas with the support of German institutions and development agencies.
- Placement of German expert(s) on secondment at COMSATS Secretariat for consultancy and advice on COMSATS' regional and international programs. In this connection, it was informed that experts from China and Nigeria are already on board.

Lectures and Talks

Discussion Forum on Sino-Pak Agriculture Cooperation

A roundtable dialogue on "Sino-Pak Agriculture Cooperation – Way Forward" was held at COMSATS Secretariat, on 20th January 2020. The forum highlighted the ongoing Sino-Pak Agriculture Cooperation during the second phase of China Pakistan Economic Corridor (CPEC).



In his keynote address, Dr. Gu Wenliang, Agricultural Commissioner at the Embassy of People's Republic of China in Islamabad, underscored the need to promote cooperation in agriculture sector to help produce better crop varieties and agricultural products, and building green corridor. He opined that current GDP contribution of agriculture sector of Pakistan (i.e., 24% approx.) can be enhanced through effective business-to-business partnerships. Furthermore, Dr. Gu noted the prospects of collaboration between the Chinese Academy of Sciences (CAS) and Pakistan Agriculture Research Council (PARC) for policy formulation.

Mr. Hassan Daud, CEO of the Board of Investment from KPK and former Project Director, CPEC in Planning Commission, Government of Pakistan, emphasized promoting co-branding and co-marketing of agro-based products and livestock. Speaking on the occasion, Dr. Muhammad Azeem, Chairman, PARC, deliberated on Pakistan's standing in agriculture and outlined the potential avenues of cooperation between Pakistan and China. He urged increase in crop varieties, developing research infrastructure and providing training facilities to researchers and farmers alike.

The dialogue was attended by research

scholars, various stakeholders from enterprises, academicians, diplomats, and members of the civil society.

Lecture on BRI and its Implications on Sustainable Development in Pakistan

COMSATS and the Global Think Tank Network organized the first lecture under their joint Distinguished Guest Lecture Series on 15th January 2020. Senior Advisor at Flint Global and a former Europe Minister of Portugal, Mr. Bruno Macaes delivered the lecture on "Belt and Road Initiative and its implications on sustainable development in Pakistan". His areas of interest and expertise include technology, life sciences and financial services sectors on EU politics and policy, Brexit and EU-China relations.



The lecture was attended by a number of officials from academia, COMSATS Secretariat and GTTN, including Dr. S. M. Junaid Zaidi, Executive Director COMSATS; Mr. Owais Ahmad Ghani, Former Governor for Balochistan & KPK; Dr. Shoaib Suddle, Pakistan's Former Federal Tax Ombudsman; Dr. Akram Sheikh, Chairman of the Board – GTTN and former Federal Minister/Deputy Chairman Planning Commission of Pakistan; Mr. Amer Hashmi, President & Member of the Board – GTTN; Ms. Najma Pirzada, Managing Editor Global Village Space Publications; Mr. Ghalib Iqbal, Ex. Ambassador to France; Dr. Saifullah Awan, National University Science and Technology; Dr. Ansar Rajput, Capital University; and Ms. Shaheen Rasul, GTTN.

In his lecture, Mr. Macaes explored various dynamics of BRI relating to the economic, commerce and geo-political aspects of this grand project. It was delineated that the project is set to form new value chains involving major parts of Asia. BRI, it was noted, is going to improve China's access to world markets, create more complex value chains and achieve international standards by creating and retaining technological advantage. The ambitious project is going to be major influencer of geo political scenario of the world by establishing a global network of



influence. China, especially through BRI, is making new global markets by means of high-tech industry, with inclusion of a number of developing countries. On global scale, BRI is significant because of the trade volume available in Asia and Europe.

The Q&A session resulted in discussions on creation of more value chains and systems. Human resource of China was considered an important contributor to its thrust, as well as its GDP and technological advancement.

Other aspects discussed during the session were role of Europe in BRI, risks related to the project, technology absorption and adaptation, geopolitical changes, foreign policy, internationalization of Chinese currency, and terms of technology transfer. The environmental aspects of BRI were also touched upon. CPEC, it was observed, has become a major framework for economic policies environment for future years.

In his concluding remarks, Dr. Zaidi appreciated the new activity under COMSATS and GTTN collaboration in the form of the lecture series. He hoped to work out new projects and programmes under the said collaboration that would be mutually beneficial for BRI and COMSATS' member states.

Lecture on Importance and Challenges to Universities

A lecture on "Ranking and Universities – Importance and Challenges" was jointly organized by COMSATS, the Inter University Consortium for the Promotion of Social Sciences Arts and Humanities (IUCPSS) and the International Center for Training and Development (ICTD) at COMSATS Secretariat, Islamabad, on 3rd January 2020.

Delivered by Prof. Syed Sohail Hussain Naqvi (Rector of University of Central Asia – Kyrgyzstan and former Executive Director of the Higher Education Commission of Pakistan), the lecture had the participation of Vice Chancellors from the public and private sector universities, senior academicians, and several former employees of Higher Education Commission (HEC).

In his opening remarks, Dr. S.M. Junaid Zaidi, Executive Director COMSATS, highlighted the challenges faced by academia in Pakistan and suggested devising strategies for better accommodating intellectuals and skilled workforce in the country, particularly in the backdrop of China Pakistan Economic Corridor (CPEC).

In his lecture, Prof. Naqvi discussed various ranking parameters used by the global ranking organizations. He

remarked that institutional rankings apart from teaching and research are also important for standing out with respect to academic excellence.

Interactive Session on University Ranking & Quality Assurance

An informational session on the ranking and quality assurance of universities was jointly organized by COMSATS' International Centre for Training & Development (ICTD), the Inter University Consortium for the Promotion of Social Sciences Arts and Humanities (IUCPSS) and the Applied Higher Education Singapore, at COMSATS Secretariat, on 18th February 2020.

The session panelists included Ms. Mandy Mok, Chief Executive Officer and faculty member at Applied HE Singapore; Prof. Herman Surjono, Dean Faculty of Engineering, Universitas Negeri Yogyakarta, Indonesia; Mr. Pieter E. Steck, Chief Analyst at Applied HE Singapore; Dr. Rauf I Azam, Pro-Rector of University of Lahore; and Dr. Syed Tahir Hijazi, Vice Chancellor of MY University, Islamabad. Thirty participants from various universities of Pakistan attended the session.

The participants were also acquainted with the membership criterion that puts in place certain KPIs.

SPECIAL SECTION: COMSATS HIGH-LEVEL BREAKFAST MEETING, ADDIS ABABA, ETHIOPIA

COMSATS has been taking its central agenda of international cooperation for Sustainable Development and establishing the supremacy of Science and Technology in development agenda of the countries to relevant international fora. This helps create awareness about the organization's mandate and operations, explore opportunities of international cooperation with institutions/organizations based on similar mandates, and garner support of governments for keeping commitments stipulated in its statutes, including expansion of membership.

Honourable Nana Addo Dankwa Akufo-Addo, President of Ghana and Chairperson of COMSATS, hosted a High-Level COMSATS Meeting in Addis Ababa, Ethiopia, on 9th February 2020, on the side-lines of 33rd African Union (AU) Summit Meeting. This was a Ghana event – one of the side events involving the AU Member States, including Mali, Equatorial Guinea, Seychelles, Ethiopia, Nigeria, and Uganda.

The Summit, held from 21st January to 10th February, had the theme "Silencing the Guns: Creating Conducive Conditions for Africa's Development". Silencing the Guns is a commitment towards the realization of Africa's Agenda 2063, in particular creating

"In the 25 years of its existence, COMSATS has played a lead role in cultivating an enhanced culture of scientific and technological co-operation amongst its members, through capacity building, education and research and development"

Hon. Nana Addo Dankwa Akufo-Addo, President of Ghana

peace within the continent to achieve development.

The main agenda of the High-Level Breakfast Meeting was the fourth General Meeting of the Commission and Accra Forum on Science and Technology for Sustainable Development, which are scheduled to be held in the second quarter of this year. Additionally, through this meeting, COMSATS aimed at sensitizing participating high-level officials about its international programmes designed to meet the scientific and technological needs of its member states with the purpose to achieve economic and social development at large. Briefing on developments regarding the undertakings of COMSATS

Coordinating Council and COMSATS Centre for Climate and Sustainability (CCCS) was also the part of the Meeting.

Presided over by the Honourable President of Ghana, the meeting was attended by two Presidents, a Vice President, and seven Ministers. The following Excellencies and officials also graced the occasion with their presence:

- H. E. Muhammadu Buhari, President of Nigeria;
- H.E. Isatou Touray, Vice President of Gambia;
- H.E. Dr. Elioda Tumwesigye, Minister of Science, Technology and Innovation, Uganda;
- H. E. Mr. Patrick Achi, Minister/ Secretary General to the President, Republic of Ivory Coast;
- Mr. J.H. Mupamhanga, Deputy Chief Secretary, Office of the President of Zimbabwe;
- Hon. Shirley Ayorkor Botchwey (MP), Minister for Foreign Affairs and Regional Integration, Ghana;
- H. E. Geoffrey Onyeama, Minister of Foreign Affairs, Nigeria;
- H.E. Mr. Alan Kyerematen Minister of Trade and Industry, Ghana;
- H.E. Mr. Ambrose Dery, Minister of Interior, Ghana;
- Dr. Eugene Owusu, Special Advisor





reposition the Commission to support the collective drive for development, leveraging science, technology and innovation. He was confident that COMSATS is well situated to help foster greater partnerships to advance science and technology for the development of Africa. He considered the work of the organization important for the application of science and technology for the development of Africa and invited more African countries to join COMSATS' Commission.

On the occasion, Dr. Zaidi highlighted the significance of promoting greater collaboration with countries in Africa and underscored the need to increase COMSATS' membership in Africa. He informed that COMSATS has initiated several programmes in capacity-building, grant of scholarships, and assisting in establishing S&T-related interventions in member countries. He also highlighted the new initiatives taken by COMSATS in the areas of climate change, sustainable development and fostering partnerships with the United Nations, Commonwealth, European Commission, and international and regional organizations in addressing developmental challenges.

Heading COMSATS' body that represents COMSATS' International Centres of Excellence, Prof. Ashraf Shaalan briefed the participants about

to the President of Ghana on the SDGs;

- H.E. Asghar Golo, Ambassador of Pakistan to Ethiopia; and
- H.E. Mrs. Amma A. Twum-Amoah, Ambassador of Ghana to Ethiopia.

appreciated the support extended by the Government of Pakistan to COMSATS for its contribution in assisting developing countries in the field of science and technology. His Excellency informed that the purpose of the meeting was to ensure that Member States recommit themselves to COMSATS' mission, and to

"The pivotal role science and technology play in development is well acknowledged. Together with innovation, they have become the new currency for development. Science and technology hold the key to finding sustainable economic, social and environmental solutions to the many problems that confront us. And these problems are shared – from Algeria to Zimbabwe, and from Benin to Tanzania, we face common problems."

Hon. Nana Addo Dankwa Akufo-Addo, President of Ghana

"We are concentrating on encouraging our students, at the primary and post primary levels, to love and study more of science related subjects rather than arts, political science and history,"

H.E. Muhammadu Buhari, President of Nigeria

The Secretary to COMSATS Commission, Executive Director COMSATS, Dr. S. M. Junaid Zaidi was also present during the meeting. Other officials representing COMSATS included Chairperson of its Coordinating Council, Prof. Ashraf Shaalan; Advisor to the President of the COMSATS' focal point in Turkey, Scientific and Technological Research Council of Turkey (TÜBİTAK), Prof. Dr. Orkun Hasekioğlu; Advisor (Climate Change) at COMSATS, Amb. (R) Shahid Kamal; and Deputy Director (Systems) COMSATS, Mr. Nisar Ahmad.

Hon. Nana Addo while opening the Meeting underscored the role COMSATS is playing in advocacy of science and technology as an important tool for peace and progress in the developing countries. His Excellency opined that COMSATS is well-positioned to support 'Agenda 2063: The Africa We Want' to deliver on sustainable development. He



the activities of COMSATS Coordinating Council, especially in capacity-building in ICTs, renewable energy, agriculture, food security, biotechnology, material sciences, natural products sciences and climate change, especially through institutional arrangements. Ambassador Shahid Kamal briefed the meeting on the new initiative of establishing COMSATS' Centre for Climate and Sustainability (CCCS), which has 15 COMSATS' member states.

During the interactive discussion session, the Honourable President of Nigeria appreciated the work done by COMSATS and affirmed that Nigeria recognizes the centrality of science and technology in the development process and will ensure adequate resource allocation for research and development. He added that technology is aiding Nigeria's advancement in critical sectors of the economy. He noted that his administration was conscious of the relevance of science and technology in national development and as such has a ministry dedicated to the sector, which is headed by a scientist.

Foreign Minister of Nigeria and Minister for Science & Technology of Uganda, expressed interest in seeking assistance of COMSATS with regard to improving the state of science and technology education in African schools, increasing capacity development efforts and forging closer cooperation with COMSATS' Centres of Excellence.

Contributing to the open discussion at the meeting, Governor Mr. Benedict Bengiushuye Ayade of Cross River State, who was part of the Nigeria's delegation to Ethiopia, suggested that COMSATS should align its Network operations related to education, training and research for specific fields and vocations of S&T to better contribute to national and regional development.

Concluding the meeting, the Honourable Chairperson of COMSATS called for intensifying cooperative activities of COMSATS in priority areas to strengthen capacities in meeting UN Sustainable Development Goals. He invited highest level representation by COMSATS' member states as well as other countries from the developing

world to attend COMSATS' General Meeting.

The high-profile meeting presided over by one of the most prominent figures of Africa reflects the eminence that COMSATS has achieved in the developing countries, especially Africa.

Sideline Meetings in Addis Ababa

On the sidelines of the Summit, COMSATS' delegates held important meetings with the President of Ghana and participating officials with a view to exploring prospects of collaboration in S&T as well as to enhance COMSATS' programmes further to the African region. In depth discussions were held regarding the prospects of participating COMSATS' African Member States and COMSATS' membership expansion to Africa.

The Ghanaian President while noting the opening of Pakistan's resident diplomatic mission in Ghana, stated that he is keen to strengthen relations between Ghana and COMSATS host country, Pakistan. He was appreciative of the support extended by the Government of Pakistan to COMSATS and expressed intent to visit COMSATS host country, Pakistan. He also expressed desire to invite the Prime Minister of Pakistan, H.E. Mr. Imran Khan, to visit Ghana.

Also present in the meeting, the Foreign Minister of Ghana expressed interest in visiting Pakistan to deepen cooperation in various sectors.

Dr. Zaidi also held meetings with the following high-level officials from COMSATS' non-member states so as to apprise them of COMSATS' mandate and to encourage them to join COMSATS. These included:

- H. E. Mr. Patrick Achi, Minister/ Secretary General to the President,



- Republic of Ivory Coast,
H.E. Mr. Exemo Sr. D. Armando
Dougan Champion, Vice Minister
at the Presidency and Director
Science, Equatorial Guinea.

During the meetings, Their Excellencies were given briefings on COMSATS' structure, activities and international programmes in various fields of science and technology. Besides, Dr. Zaidi also acquainted them with COMSATS' international linkages and the benefits and obligations of joining COMSATS including the various scholarship opportunities available with COMSATS'

Network for its Member States, multilateral research opportunities as well as scientific exchanges.

The Ministers were appreciative of COMSATS' undertakings and pledged to take up membership matter with their respective governments.

Another meeting was held with H.E. Mr. Dawit Afework, Director General at the Ministry of Foreign Affairs of Ethiopia, on 10th February 2020 at his office. Welcoming the COMSATS' delegation at his office, Mr. Afework briefed them about the significance of AU Summit's



theme: "Silencing the Guns" and its relevance to Agenda 2063 of Africa.

Taking note of COMSATS' programmes and the membership offer, Mr. Afework assured that the matter of membership would be duly taken up with the relevant authorities. On the occasion, Amb. Shahid Kamal encouraged the Director General to participate in the forthcoming Accra Forum which will provide a platform to developing countries to explore and advance collaboration in S&T for sustainable development of the region. He also extended felicitations to Ethiopian Prime Minister for winning the Nobel Peace Prize 2019.

The meeting ended with a cordial note and with the handing over of COMSATS' information material including membership document to the Director General.

Major outcomes of the Addis Ababa Meetings

- Strengthened Membership Campaign; Offers of State membership extended in person to high level officials of Ethiopia, Ivory Coast, Equatorial Guinea, and Eswatini;
- Improved Presence in Africa, with President of Ghana's strong international portfolio and 12 African countries as COMSATS' members, the meeting has resulted in building new inroads on the international cooperation front;
- Stronger Networking and Projection; the meeting was widely covered in African media, harnessing due recognition for COMSATS' mandate, and activities in Africa and the organization's potential for more development activities and regional and international cooperation in Africa.

SILENCING THE GUNS FOR PEACE AND DEVELOPMENT

Op-ed by Ambassador Fauzia Nasreen

The African Union (AU) which comprises 55 countries from the continent of Africa held its annual summit in Addis Ababa on 9 and 10 February 2020. The theme focused on tackling the problem of violence so that peace could usher in a period of sustainable development. "Silencing the Guns for Peace and Development" encapsulates the aspirations of the people of Africa for a peaceful environment. Peace and stability are intertwined with policies and strategies aimed at socio-economic betterment of the people – a desire which is shared by COMSATS with the AU. 12 of the Organization's member states and 07 scientific centres in the Network of Centres of Excellence are from Africa. The President of Ghana H.E. Nana Akufo-Addo is the current Chairman of the Commission which is a privilege as it provides an important perspective on the sustainable development issues. COMSATS and Africa have special relationship. At the Foundation meeting held in 1994 the support extended by the leaders from Africa generated momentum for collective response to the challenges of underdevelopment in the South.

In the last 25 years' journey of COMSATS, the member countries from Africa have been important partners of COMSATS and are a valuable source of guidance and advice. Prof. M. H. A. Hassan from Sudan has continued to provide intellectual impetus to the work of the scientific centres. As the former head of The World Academy of Sciences (TWAS) and now Life Member of the Coordinating Council of COMSATS, he has maintained interest in advancing the goals of the Commission. The leaders of COMSATS have also shown commitment to the actualization of the vision of creating peaceful societies and in promoting science, technology and innovation for sustainable socio-economic development of its member states.

Africa is a vast continent with multifarious development needs. The countries of Africa are striving to surmount the difficulties associated with human and material resource constraints, human resource development issues, capacity

building for combating the adverse effects of climate change, dire health concerns and food insecurity. COMSATS is conscious of its role in helping mitigate some of these challenges in its member states. Within its mandate and structural framework, programmes and various initiatives have been tailored to narrow the development gap through different means. Substantial space has been provided in the Organization's bodies to the African member countries to play a meaningful role and a leading part in steering research and development as well as capacity building, education and training. COMSATS continues to work towards more countries of Africa joining its fraternity thereby fostering harmony among the developing countries.

The 2020 Summit of the AU took place at a significant juncture. The regional and international organizations have shown prioritized inclination towards supporting the African continent in overcoming the development challenges. The United Nations' Secretary General, Antonio Guterres, who participated in the Summit highlighted a related aspect of the theme "Silencing the Guns" by drawing attention to human rights, gender equality, climate change and sustainable development. These, as he said, were at the "heart of the AU-led Agenda 2063 plan" as well. Under the Trilateral cooperation, various UN bodies, the European Union and the Commonwealth have allocated substantial resources for fortifying development activities. With its abundant resources both human and material the continent enjoys an important position in the realization of the 2030 Global Development Agenda in particular the Sustainable Development Goals (SDGs). The aim of eradicating inequality, poverty, hunger and of "leaving no one behind" is quintessentially relevant for a large continent like Africa.

In order to explore possibilities of wider interaction and engagement with African countries and the AU, COMSATS utilized the opportunity afforded by the 2020 AU Summit to hold a High Level meeting in Ethiopia with

the leaders of its member countries under the chairmanship of the President of Ghana. The President of Nigeria H.E Mohammad Buhari, Vice President of Gambia H.E Isaton Touray, Ministers and high officials from Nigeria, Ghana and other member states participated in the High Level Breakfast meeting. The delegation of COMSATS was led by the Executive Director, Dr. S. M. Junaid Zaidi. It included Prof. Ashraf Shaalan (Egypt), Chairperson COMSATS Coordinating Council and Prof. Dr. Orkun Hasekioglu, Advisor to President, Scientific and Technological Research Council of Turkey (TUBITAK). The President of Ghana in his capacity as the Chairman of the Commission apprised the participating leaders and officials about the previous and ongoing as well as future activities of the Organization.

The meeting of the Commission is expected to be held in the near future along with Accra Forum. The Forum will focus on science and technology's role in promoting the SDGs. Climate change is a cross cutting area which impacts sustainability in all the other areas impairing the people's resilience and the country's progress and prosperity. Moreover, the intergenerational impact has far reaching consequences for the survival of humanity given the extinction challenges calling for urgent actions.

The Addis Ababa High Level Meeting deliberated on some of these issues in the light of COMSATS' programmes and activities that include research and development in the important areas of climate change and environment, agriculture and food security, information and communication technologies and other areas.

The 2020 AU Summit provided an important opportunity to draw attention to the damaging impact of climate change as manifested in the locust attacks experienced by the coastal African states. The harmful effects of locust swarms have also been experienced in Pakistan. This is one area where the countries affected can collectively develop capacities in fighting the menace.



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SOME ACTIVITIES OF COMSATS' CENTRES OF EXCELLENCE

RSS-Jordan holds Second Meeting of MINARET Project

Under the umbrella of REGEND and MINARET projects, the Royal Scientific Society / National Energy Research Center (RSS/NERC) and the UN Economic and Social Commission for Western Asia (UN-ESCWA) organized a workshop on "Access to Finance for Municipalities – Nexus Thinking and Decentralization of Subnational Governments", from 28th – 30th January 2020.

The workshop focused on sharing experiences, building capacities of relevant institutional bodies, and formulating gender mainstreaming and human rights-based strategies and action plans to support sub-national governments, municipalities and local institutions in accessing financial resources.

With over 150 participants, the event focused on setting the context for the nexus approach in the MENA region with regard to financial challenges and opportunities at municipal levels.

RSS-Jordan hosts Course on ISTQB Certified Tester-Foundation Level (CTFL)

From 19th January to 4th February 2020, the Royal Scientific Society (RSS), Jordan, hosted the ISTQB Certified Tester-Foundation Level (CTFL) training course conducted by the National Software Quality Assurance Centre (NSQAC), Jordan. Software developers and interested individuals were trained on software testing basics, role and importance of testing in software development life cycle (SDLC), testing process, testing types and techniques on different testing levels, as well as testing tools.

TÜBİTAK MAM-Turkey Exhibits its R&D Products

TÜBİTAK Marmara Research Center (MAM), Turkey, participated in the first Smart Cities and Municipalities Congress and Exhibition held under the auspices of the President of Turkey, from 15th -16th January 2020, at Ankara, Turkey.

The event provided a platform for cooperation and interaction among smart city technology producers, solution and service providers so as to establish an effective smart city ecosystem. TÜBİTAK MAM displayed its products including Fuel Cell Modules and Components, Lithium Ion Battery Samples, Trigen Project Fuels, Noise Maps and Noise Barriers, Dissolved Oxygen Sensor, National Flue Gas Analyzer (YEBA), Zero-Waste Approach in Treatment Sludge Management, Cavitation System, Smart City Sustainability Model, Environmental Label for Accommodation Facilities, Photovoltaic Solar Panel and Terahertz Imaging System.

Hydrogen and Electric Cars developed by TÜBİTAK MAM-Turkey

TÜBİTAK MAM in collaboration with

the National Boron Research Institute (BOREN), Turkey, has developed a new domestic car that is powered by an electric motor and hydrogen fuel. The car's hybrid engine allows it to travel up to 450 kilometers by utilizing electricity for 300 kilometers and hydrogen fuel for an extra 150 kilometers. The vehicle has zero emission value and accelerates to 100 kilometers in a very short time.

CUI-Islamabad Expands Cooperation in Academics

During the reporting period, COMSATS University Islamabad (CUI), Pakistan, hosted international delegations from China; Italy; United Kingdom; and the US.

During the meeting with the representatives of Coventry University, UK, possibilities for provision of scholarships to students and early career researchers at CUI were explored. Similar prospects were considered during the meetings with the delegates of University of Palermo, Italy and Harbin Engineering University, China. Besides, the representatives of the Centre for Climate Research and Development (CCRD), CUI, in a meeting with Dr. James Schauer, Science Envoy for Air Quality from the US State Department, discussed prospects



of establishing working relations for finding solutions to common challenge of air quality monitoring.

CUI-Islamabad Represented at EDEX Expo

Prof. Dr. Junaid Mughal, Chairman/In-charge Academics and Mr. Ali Tawab Baloch, Head International Office represented CUI at Sri Lanka's largest education exhibition and job fair, EDEX Expo, held from 17th – 19th January 2020, in Colombo.

On the sidelines of the Expo, CUI delegates held meeting with Dr. Radhika Samarasekera, the Director General of COMSATS' Centre of Excellence in Sri Lanka, the Industrial Technology Institute (ITI). The meeting was meant to exploring avenues of mutual cooperation in R&D. During the meeting, the DG was also informed about research and scholarship opportunities available at CUI for ITI faculty and students.

"Safefish" Project Launched by CSIR-Ghana

The Food Research Institute of CSIR has launched a "Safefish" project with the funding from the African Union and the European Commission. The project tends to improve Tilapia fish health which contributes 90.3% to the total aquaculture production. It will also focus on developing bacteriophage products for integrated fish disease management to minimize antibiotic use in fish production in Ghana.

The three-year project will involve various stakeholders in the Aquaculture sector in Ghana and Uganda especially small holder fish farmers including women that dominate the aquaculture sector in the two countries.

HIAS-Tyria holds Workshop on Nanotechnology Innovations

The Higher Institute for Applied Sciences and Technology (HIAS-Tyria), Syria, in collaboration with the Arab School for Science and Technology (ASST), the Higher Commission for Scientific Research in Syria (HCSR), the Atomic Energy Commission of Syria (AECS) and COMSATS organized a workshop on "Challenges and Innovations in Nanotechnology" from 18th – 19th December 2019, in Damascus, Syria. The Workshop was aimed at providing effective platform for networking among Syrian and international researchers to help create a roadmap for nanotechnology advancement in Syria.

During the two-day Workshop, the scientists from Iran and Pakistan discussed applications of nanotechnology in Functional Materials, Pharmaceuticals, Water Treatment, Membrane Technology, Medicine, Agriculture and Construction Materials, resulting in a number of relevant recommendations relating to enhancing cooperation, promoting investment in R&D, stronger liaison, and fostering public-private partnerships.

IROST-Iran Holds 33rd Khwarizmi International Awards

Ten laureates from Iran and five from Australia, China, South Korea, and the United States have been conferred Khwarizmi International Award (KIA) by the President of Iran, H.E. Mr. Hassan Rouhani, during a ceremony held on 17th February 2020, in Tehran, Iran. COMSATS which is a privileged partner of KIA since 2000 also sponsored two awards.

The selected projects related to the development of thermal solar energy technology, synthesis of peptide

radioactive raw materials, research and development of pharmaceuticals from marine species, research, design and implementation of renewable technologies in micro-networks, and Bitban malware analysis platform.

Honors and Recognition of Rector Al Farabi KazNU-Kazakhstan

In recognition of his scientific contributions and leadership qualities, Prof. Dr. G. M. Mutanov, Rector of Al-Farabi Kazakh National University (KazNU), Kazakhstan, has been honored with the "Amity Global Academic Excellence Award", in Noida, India. He was also honored by the Republic of Turkey with its highest state award, the Virtue Award, for his contribution to development of relations between Turkey and Kazakhstan in S&T.

Al Farabi KazNU-Kazakhstan to Open Branch in Syria

Al-Farabi Kazakh National University is planning to open its branch in Damascus, Syria. This possibility was explored during a meeting held between Prof. Dr. G. M. Mutanov, Rector KazNU, and Professor Mohammed Maher Kabakibi, President of the University of Damascus, Syria, held at the celebration of the 1150th anniversary of Abu Nasr al-Farabi, in Almaty.



CORONA: PANDEMIC IN TIMES OF TECHNOLOGY AND INNOVATION

by Dr. Azeema Fareed

Multidrug resistant bacterial infections, resurgence of drug resistant Tuberculosis, global spread of HIV and increasing occurrences of various forms of cancers have been few of the biggest concerns and challenges for the health authorities all over the world last few decades. These concerns have every now and then been accompanied by the multiple outbreaks of viral illnesses that cause influenza and respiratory illnesses intensifying the looming global health threats. According to WHO, every year, there are an estimated 1 billion such cases; 3-5 million severe cases, and 290000-650000 influenza-related respiratory deaths.

The history of known Influenza and respiratory illnesses dates almost 300 years back, killing millions of people across Europe and Asia during these centuries. Though the discovery of antibiotics has been the major breakthrough for humanity that has helped greatly curtail infectious diseases, but emergence of viral infections especially the ones originating from animals has been a challenge. There are a number of

influenza and other virus strains and their subtypes worldwide that cause flu and other respiratory illnesses in humans and animals. Fortunately, such infections are usually self-limiting and only spread to a limited number of people. However, sometimes humans are infected with viruses that originate from animals, such as influenza viruses like avian influenza virus subtypes A(H5N1) and A(H9N2), swine influenza virus subtypes A(H1N1) or corona viruses like SARS-CoV. Most recent and well known addition in this group is the novel COVID-19 that took the world by storm starting at the end of 2019.

Such infections that are transmitted from animals tend to be severe and more likely to cause an epidemic since immunity against such infections is previously absent in the humans. As the world is becoming a global village chances of such infections spreading to other areas have increased exponentially thus making them more likely to cause a global emergency.

In 2003, SARS and later on other sporadic outbreaks of infections like

Middle Eastern Respiratory syndrome became responsible for epidemics that affected thousands of people causing loss of life in many. The recent outbreak of newest subtype CoVID-19 in China has also caused outbreak of Corona virus started in December 2019 that soon became a pandemic, with the live animal market of Wuhan city as the possible source of infection. The mode of infection, symptoms and complications of CoVID-19 infection are just like the SARS-CoV as both are respiratory illnesses. The infection spreads from person-to-person through sneezing, coughing, or touching contaminated surfaces making it highly infectious.

Scientists and researchers all over the world continue their efforts to find vaccines, treatments and cure to such infections and ways to prevent and control the spread. In case of novel corona virus, new and innovative technologies are making a huge contribution to such efforts. Technology has helped stakeholders to devise techniques to diagnose new cases, ways to manage the existing ones without getting infection, isolate the patients from the health population and more importantly prevent the infection from becoming a nightmare pandemic in this era of extensive travel among the countries. The situation could have been worse, had there been no technology supported systems to assess the affected areas and ultimately their cordoning, faster diagnostic methods and better isolation.

An outlook on how technologies have been helping in this epidemic that has now become a global health emergency shows multiple areas where technologies are being utilized. World Health Organization and Centre for Disease Control U.S have developed



Image Credits: Beijing Infervision Technology Co. Ltd.

dashboards with interactive maps to graphically update the situation of new confirmed cases, deaths reported and recoveries. The maps utilize the data collected from various transparent and reliable sources.

Applications to track the spread of the virus through Artificial intelligence (AI) are another example of use of technology. An application, developed in Canada, is using large data sources about the reported cases, airline and other travels and using data analysis algorithms to predict the possible spread and route of the COVID infection. Things have fast evolved since then throughout the world.

China, the country most affected with the recent outbreak is at the forefront of using digital applications like the one that allows the users to track if they have been in close contact with a corona affected person. The application works by collecting and analyzing data on public transport records, patient data and national identification number. The application then indicates whether the person using app has been in contact with virus. Similarly, another application assigns QR codes to the users through AI that designates whether they are at risk of contracting the coronavirus. On basis of these codes, people who have travelled are recommended to self-quarantine for 7 or 14 days. Additionally, alerts to local health officials is also generated in this regard.

In another development, a start-up Yitu Technology, telecoms gear provider

Huawei and Alibaba developed AI supported services to help analyze the images of computerized axial tomography (CAT) scans of suspected corona virus patients within few seconds as compared to a doctor who may take 5 to 15 minutes to analyse a CAT scan.

“Overall, technology has been more of a beneficial tool in the whole COVID scenario especially when compared to the SARS epidemic back in 2003”.

Outside China, in recent developments, AI is being used to find effective treatments against the strain. Insilico medicine has used artificial intelligence to identify thousands of new molecules that could be turned into potential medicines against the virus. The use of drones is another example how technology is being utilized in this battle against the CoVID-19. Drones equipped with thermal imaging technology are being used in China to detect those with fever. Drones are also being used to transport medical supplies and patient samples and other necessities as lock downs of the cities and quarantine restrictions have impacted normal supply routes along road, rail and water. In another project, robots are being installed in the hospitals to automatically deliver cooked food and medication to patients’ bedsides.

In the current age of ICTs, online health consultations, availability of informative and education materials have increased all around the world as millions of people are visiting to corona-related training programs and looking for other information on internet.

In this connection, Internet’s involvement includes social media that is for many a ready means of information as well as “disinformation”. At one hand social media gives support in the form of interest groups, awareness about the illness and guidance in best practices and treatment while on the other hand it also gives unqualified people making commentary on this crucial topic and fast spread of wrong information.

Since the news of outbreak, in December last year, there has been a storm of fake news and information on social media triggering great fear among the populations. The WHO has labeled this spread of fake information as “infodemic” that spreads faster than the virus. The experts have equally responded well in time with swiftly refuting the fake news, but the problem persists.

Overall, technology has been more of a beneficial tool in the whole COVID scenario especially when compared to the SARS epidemic back in 2003. Twenty years ago, it was not possible to track the spread of diseases; swiftly make leaps towards finding treatment and developing vaccines and take care of the affected people without too much risk of exposure.



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Senegal Gears Up to Move Towards Clean and Green Energy

In line with its efforts to transition towards renewable energy solutions, Senegal has established the first of its kind largest wind farm in West Africa in partnership with Lekela – Independent Power Producer (IPP). The first phase of the Taïbe Ndiaye wind farm, located 70 km from Dakar, was launched by the Government of Senegal on 24th February 2020.



Picture Credits: Shutterstock

The zero-emissions renewable energy power plant is designed to provide up to 15% of energy provided by Senelec, the National Electricity Company of Senegal. With its 46 turbines, the Taïbe Ndiaye wind farm will inject 158.7 MW into the grid providing enough electricity for 2 million people annually while also preventing the emission of 300,000 tonnes of carbon dioxide per year.

The construction of the Taïbe Ndiaye wind farm is being supported by Danish Export Credit Agency (EKF), as well as Overseas Private Investment Corporation (OPIC) and U.S. Development Finance Corporation (DFC).

United Nations Agencies to Assist Food Security Efforts in Sudan and Sri Lanka

A Memorandum of Understanding has been signed between Sudan's Ministry of Agriculture and the United Nations World Food Programme to find solutions for combatting pests and post-harvest crop loss.

Sudan loses 800,000 tons of food annually and suffer huge post-harvest losses that aggravate food crises, due to

the lack of sustainable use of land and water resources. The partnership will help the farmers in Sudan to maintain their production throughout the year by ensuring the usage of sealed sacks that only help reduce harvest losses to zero but are also safe, effective and inexpensive.

On the other hand, a new food laboratory has been established at the Industrial Development Board (IDB) in Moratuwa, Sri Lanka, under the framework of the EU-Sri Lanka Trade Related Assistance project. The project aims to increase the supply and widen the array of National Quality Infrastructure (NQI) services offered to enterprises in the food and spices

sectors in Sri Lanka.

Technical support for the laboratory is being provided by the United Nations Industrial Development Organization (UNIDO) which is also a partner in EU-Sri Lanka Trade Related Assistance project along with the International Trade Centre (ITC). The NQI institutions benefitting from the technical assistance include the Sri Lanka Accreditation Board, the Sri Lanka Standards Institution, and the Measurements Units, Standards and Services Department, as well as regulatory and private CABs, including the Industrial Technology Institute, where a national packaging testing center was established with UNIDO's technical support.

Morocco Collaborates with Mexico and Zimbabwe for Sustainable Development

On the sidelines of the 6th session of the Africa Regional Forum on Sustainable Development held in Zimbabwe in the second half of February, the Minister Delegate to the Minister of Foreign Affairs of Morocco, Mrs. Nezha El Ouafi, explored avenues of cooperation with the Zimbabwe's Minister of Public Service, Labor and Social Welfare, H.E. Mr. Paul Mavima.

The two officials agreed to strengthen cooperation in the areas of sustainable development and environmental protection between Morocco and Zimbabwe. Mr. Mavima expressed interest to benefit from Morocco's pioneering experience in Africa in sustainable development. Mrs. El Ouafi expressed Morocco's willingness to share its National Sustainable Development Strategy with other African countries, in accordance with King Mohammed VI's South-South cooperation foreign policy focus.

On the other hand, at the Forum of



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Picture Credits: Iran Front Page

Presidents of the Legislative Powers of Central America and the Caribbean (FOPREL), Hakim Benchamach (President of Morocco House of Councillors) and Laura Angélica Rojas Hernández (President of the Mexican Chamber of Deputies) discussed prospects of partnerships based on commonality of their interests. The two sides expressed interest in joint work as both Morocco and Mexico are regional leaders in several fields, notably environmental protection, climate action, human rights protection, and management of migration issues.

Modern Technologies to Foster the R&D Sector of Iran

Iran has started the first phase of the Comprehensive Research Centre for Stem Cells and Regenerative Medicine affiliated with the Tehran University of Medical Sciences (TUMS). The Centre was inaugurated by H.E. Dr. Sorena Sattari, Iranian Vice President for Science and Technology. The Centre will help accelerate advancement of medical sector of Iran through research and technology development.

Another Centre was inaugurated by Dr. Sattari established to accelerate the development of a technological model for the delivery of rehabilitation services

over telecommunication networks. The 'Centre for Promotion of Tele-rehabilitation Technologies' will provide the patients with the opportunity to receive rehabilitation services through modern technologies, such as virtual reality, artificial intelligence and machine processing.

European Union to Support Ghana and Kazakhstan for Inclusive and Sustainable Growth

In cooperation with the European Union, the Republics of Ghana and Kazakhstan have launched projects to boost their economic growth, reinforce social infrastructure as well as to promote sustainable development in the countries.

The Agreement on Enhanced Partnership and Cooperation between Kazakhstan and the European Union covers 29 specific areas from environment and climate change, health, education and clean energy to infrastructure development, research, innovation and industry. The Agreement is expected to provide a strong framework for sustainable modernization and increased connectivity

Ghana also launched a project in cooperation with EU to boost inclusive growth and reduce social inequalities. The project will support Ghana's Shared Growth and Development Agenda (GSGDA) II with a focus on agricultural modernization, natural resource management, infrastructure and human development and employment, among others.

African Union of Agricultural Professionals (AUAP) Initiative Launched by Egypt

Egypt's Agriculture Ministry and Agricultural Professions Syndicate has launched the African Union of the Agricultural Professionals (AUAP) initiative to achieve agricultural integration using the potential available throughout Africa.

Due to its large contribution to the GDP and providing for food security and raw materials for many industries, agriculture is an important sector of the national economies of most African countries. AUAP initiative is expected to maximize the role of agriculture sector in achieving sustainable agricultural development for the people of Africa.



Picture Credits: Egypt Independent

Colombia's S&T Department Upgraded to Ministry

The Administrative Department of Science, Technology and Innovation (COLCIENCIAS), COMSATS' focal point in Colombia, has been upgraded to Colombian Ministry of Science, Technology and Innovation (MINCIENCIAS) through signing of Decree 2226 by the President of Colombia, H.E. Iván Duque Márquez.

With its upgraded status, the institution (Ministry) will promote scientific and technological knowledge within the country to help build a more productive economy for the development of the country.



H.E. Dr. Diego Fernando Hernandez Losada, formerly the Director General of COLCIENCIAS, has been appointed as the first Deputy Minister for Knowledge, Innovation and Productivity in the newly established Ministry.

Scientists Use Big Data to find Climate-Smart Agriculture Solutions

A team of scientists at the Michigan State University, United States, have developed climate-smart agriculture solutions to help farmers reduce cost, increase yields and limit environmental impact (Science Daily, February 27, 2020).

The team studied yield variability across different fields by comparing soil types, weather, crop variety, and many other factors by using drones and satellite technology to collect data. They found that the interaction between topography, weather and soil has an immense impact on how crop fields respond to extreme weather in unstable areas.

They found that by using spatially variable irrigation and other smart technologies, yields can be improved by recognizing the in-field variations that affect yields and responding to them by changing inputs. Funded by USDA NIFA and AgBioResearch, the study is the first to use big data to identify areas within individual fields where yield is unstable.

Some Scientific Events in Member States

- World Congress on Industrial Biotechnology, Hargeisa, Somalia
(<http://conferencefora.org/Conference/12953/WCIB/>)
- International Conference on Food and Agricultural Engineering (ICFAE), Cairo, Egypt
(<http://theires.org/Conference2020/Egypt/3/ICFAE/>)
- International Conference on Nanoscience, Nanotechnology and Advanced Materials (IC2NM), Dhaka, Bangladesh
(<http://www.academicworld.org/Conference2020/Bangladesh/1/IC2NM/>)
- International Conference and Expo on Drug Discovery, Designing and Development (ICE4D), Amman, Jordan
(<http://universal-conference.com/Conference/10660/ICE4D/>)
- International Conference on Tissue Science and Regenerative Medicine, Montego Bay, Jamaica
(<http://eurasiaweb.com/Conference/12152/ICCTS/>)
- World Congress on Medicinal Plants and Natural Products, Montego Bay, Jamaica
(<http://eurasiaweb.com/Conference/12153/EUWCMPNP/>)
- International Conference on Future Cities, Zarqa, Jordan
(<http://worldresearchsociety.com/Conference/14756/ICFC/>)

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

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

- Hundred (100) scholarships for students/researchers for postgraduate studies at all campuses of COMSATS University Islamabad (CUI), Pakistan.
- Five (05) post-graduate scholarships, for Masters of Science in Mathematics at Lahore Campus of COMSATS University Islamabad (CUI), in collaboration with the International Centre for Theoretical Physics (ICTP), Italy.
- Five (05) post-doctoral fellowships at the International Center for Chemical and Biological Science (ICCBS), Pakistan.
- Five (05) post-doctoral fellowships at the National Research Centre (NRC), Egypt.
- Postgraduate Scholarships and Post-doctoral Fellowships at the International Centre for Climate and Environment Sciences (ICCES), and Tianjin Institute of Industrial Biotechnology (TIB), under PIFI Programme.
- Three (03) PhD scholarships at the Al-Farabi Kazakh National University (KazNU), Kazakhstan..

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

Selected Forthcoming Scientific Events in COMSATS' Countries

- 7-8 Sep. 2020 International Conference on Nanomaterials and Biomaterials (EUICNB), Mogadishu, Somalia (<http://eurasiaweb.com/Conference/11611/EUICNB/>)
- 12-13 Oct. 2020 International Conference on Food Microbiology and Food Safety (ICFMFS), Cairo, Egypt (<http://theires.org/Conference2020/Egypt/3/ICFMFS/>)
- 1-2 Oct. 2020 International Conference on Science, Technology and Management (ICSTM), Dhaka, Bangladesh (<http://theires.org/Conference2020/Bangladesh/2/ICSTM/>)

COMSATS Network of Centres of Excellence



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Embrapa Agrobiologia-Brazil
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english.icces.ac.cn



TIB-China
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CIF-Colombia
www.cif.org.co



NRC-Egypt
www.nrc.sci.eg



CSIR-Ghana
www.csir.org.gh



IROST-Iran
www.irost.org



ICENS-Jamaica
www.icens.org



KazNU-Kazakhstan
www.kaznu.kz/en/



RSS-Jordan
www.rss.jo



ICCBS-Pakistan
www.iccs.edu



NMC-Nigeria
www.nmcabuja.org



CUI-Pakistan
www.comsats.edu.pk



AQU-Palestine
www.alquds.edu/en



UCAD-Senegal
www.ucad.sn



ITI-Sri Lanka
www.iti.lk



IRCC-Sudan
www.ircc.gov.sd



HIAS-Syria
www.hiast.edu.sy



TIRDO-Tanzania
www.tirido.org



CERT-Tunisia
www.certe.rnrt.tn



TUBITAK-Turkey
www.tubitak.gov.tr/en

Science Vision - Call for Papers on SDGs

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



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