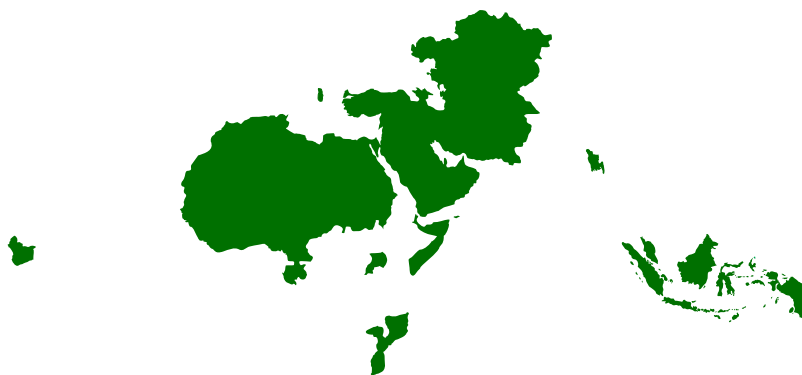
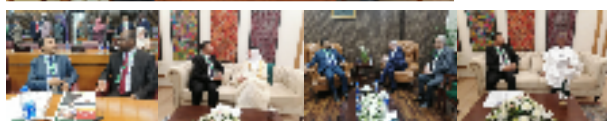




COMSTECH YEAR BOOK 2022



COMSTECH Year Book 2022

Edited and Designed by
Ikram Abbasi
Programme Manager
COMSTECH



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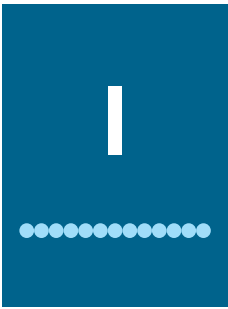


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Foreword

We live in very exciting times when opportunities are huge and challenges are daunting. In this age, nations that excel in all aspects of knowledge will be able to benefit from the thrilling opportunities and rousing possibilities. Rest will go down in the dustbin of history as their bulging populations drags them into a life of chaos and commotion.

The OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) was founded in 1981 through a resolution of the Organization of Islamic Cooperation (OIC) summit in Makkah tul Mukarramah, Saudi Arabia. Since its establishment, the COMSTECH has been working with its member states, the OIC General Secretariat, R&D institutions and universities, and distinguished scientists. The COMSTECH mission in all these years has been to help build a science technology and innovation capacity of member states through inter-Islamic cooperation.

As one of the most successful institutions of the OIC system, the COMSTECH has played an extremely active role at a global level throughout the year 2022. Its enormous contribution in the form of scholarships and fellowships program has greatly benefitted students, researchers (particularly women researchers), technicians, and policy makers, in capacity-building of the OIC member states in several areas of science, technology and innovation. Fellowships in biotechnology, food security, virology, and public health, in this regard, deserve special mention. Because, these capacity building financial assistance programs have been offered in partnership with leading international organizations, such as Islamic Organization for Food Security (IOFS), International Center for Genetic Engineering and Biotechnology (ICGEB), The World Academy of Sciences (TWAS), United Nations Educational, Scientific and Cultural Organization (UNESCO), and COMSTECH Consortium of Excellence (CCoE) member universities.

COMSTECH has also expanded its research projects support, worth USD 0.395 million annually in collaboration with IFS (International Foundation for Science) and ICGEB. COMSTECH and Islamic Development Bank (IsDB) are also working closely in the Health Africa program, as well as institutional capacity building in food processing, information and communication technologies, Halal products testing, and telemedicine. Country specific program of COMSTECH for Palestine, Yemen, Sudan, and

Somalia is another initiative worthy of mention that is based on national needs of the member states. Besides, the COMSTECH in collaboration with CCoE member universities have announced 500 scholarships and fellowships for the State of Palestine.

Annual report of COMSTECH activities during 2022 is only a synopsis of a wide spectrum of activities that is almost impossible to cover the details in a condensed publication like Annual Report. Nevertheless, we feel it provides the essential information about COMSTECH, its activities and its programs.



Prof. Dr. M. Iqbal Choudhary

Coordinator General, COMSTECH

Mustafa (PBUH) Prize Laureate

Hilal-e-Imtiaz, Sitara-e-Imtiaz, Tamgha-e-Imtiaz

Distinguished National Professor

D.Sc., Ph.D., C. Chem.

Islamabad, 2022

COMSTECH in Brief

COMSTECH the Ministerial Standing Committee on Scientific and Technological Cooperation of the OIC (Organization of Islamic Cooperation) was established by the Third Islamic Summit of OIC held at Makkah, Saudi Arabia in January 1981.

COMSTECH is composed of all the member states of OIC represented by their ministers of science and technology and chaired by the President of the Islamic Republic of Pakistan. The Prime Minister of the Islamic Republic of Pakistan is Co-Chairman of COMSTECH.

The structure of the COMSTECH consists upon General Assembly, Executive Committee, and COMSTECH Secretariat. The COMSTECH Secretariat functions under the supervision and control of the Coordinator General who is its Chief Executive.

The core mandate of COMSTECH is to strengthen cooperation among OIC member states in science and technology (S&T), and enhance their capabilities through training in emerging areas, undertake follow-

up-actions and implementation of the resolutions of the OIC, and to draw up programs and submit proposals designed to increase the capability of the Muslim countries in science and technology.

The ultimate aim is to build and nourish a scientific culture in addition to using S&T as a major contributor to socio-economic development and rapid industrialization.



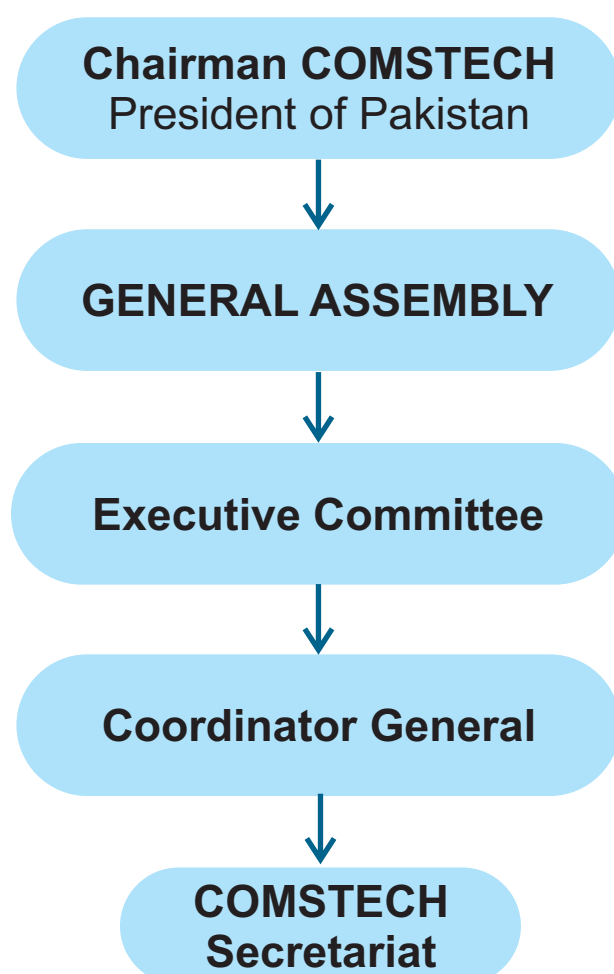
COMSTECH Vision

To achieve the ultimate sustainable socio-economic development of the Ummah through the application of science, technology and innovation, and nurturing the mutual S&T cooperation among the OIC member states.

COMSTECH Mission

To contribute towards strengthening the individual and collective capacity of OIC member states in science and technology through mutual cooperation, collaboration and networking of resources. Also, to enable the OIC member states to use S&T as a major contributor to socio-economic development and rapid industrialization.

Organizational Structure



COMSTECH General Assembly

COMSTECH General Assembly is the main decision making body, composed of the ministers of science and technology/ higher education of OIC member states.

Coordinator General COMSTECH

Prof. Dr. Muhammad Iqbal Choudhary is Coordinator General of COMSTECH. He is a world renowned medicinal chemist. He has published 1,175 research papers in the fields of organic and bioorganic chemistry in international journals, 76 books and 40 chapters in books published by major US and European press. He has secured 40 US patents so far.

Dr. Choudhary's work has been cited by the researchers from around the world by 30,000 times and his h-index is 72. By now 98 national and international scholars have completed their PhD degrees under his supervision.

Dr. Choudhary is D.Sc., Ph.D., and C. Chem. He has been awarded by different governments of Pakistan

with Hilal-e-Imtiaz, Sitara-e-Imtiaz, and Tamgha-e-Imtiaz.

He has received Mustafa^(pbuh) Prize (2021), ECO Award (2005), Khawarzimi Award (2006), COMSTECH Award (2011), TWAS Young Scientist Award (1994), and Prof. Abdus Salam Prize (1989).

He is a fellow of world renowned science academies: Academy of Sciences for the Developing World, Islamic World academy of Sciences, Pakistan Academy of Sciences, Royal Society of Chemistry, and Chemical Society of Pakistan.

Prof. Choudhary started a number of programmes for the capacity building and socio-economic development of OIC member states.



COMSTECH Scientific Advisory Council

COMSTECH aims to strengthen cooperation among the OIC Member States in science, technology and innovation (STI), and enhance their individual and collective capacities in STI, as well as cultivate a culture of science appreciation in all echelons of the OIC societies. In short, COMSTECH essentially works to harness the power of STI for socioeconomic progress, and economic well-being.

The COMSTECH Scientific Advisory Council (COMSTECH-SAC) 2020, was formed with the following guidelines.

Vision

COMSTECH-SAC's aims to become a forum for STI policy advisors and STI practitioners to share experience, build capacities, and primarily develop approaches to the use of scientific evidence in informing policy at all levels of government, primarily in OIC countries.

Mission

The COMSTECH-SAC shall be an advisory group of leading experts, nominated and invited by the

Coordinator General COMSTECH to:

1. Upon the request of OIC member states, and the directive of the Coordinator General COMSTECH, assist OIC member countries to build up their science advisory capacity and develop appropriate science advisory mechanisms to complement their own national needs.
2. Propose a model STI advisory mechanism that COMSTECH can develop and promote and can be adapted by the OIC member countries.
3. Upon the request of OIC member countries, and the directive of the Coordinator General COMSTECH, offer advice and evidence-based counsel to member states of the OIC and OIC organizations on STI policies and activities.
4. Undertake reviews and consultations on national STI policies and strategies in OIC member countries.
5. Organize outreach meetings to share experiences and best practices in the domain of science advice to governments, policy-makers and other stakeholders, in cooperation with similar networks from around the world.

COMSTECH-SAC MEMBERS



From top left to right: H.E. Prof. Dr. Muhammad Iqbal Choudhary, H.E. Prof. Dr. Atta-ur-Rahman, H.E. Dr. Hayat Sulaiman Sindi, H.E. Tan Sri Dr. Zakri bin Abdul Hamid, H.E. Prof. Dr. Ousmane KANE, H.E. Prof. Dr. Mahmoud Sakr, H.E. Prof. Abdolkader DJEFLAT, H.E. Dr. Jawad El-Kharraz, H.E. Prof. Dr. Samia Sallit Osman Mohamed Nour, H.E. Dr. Moneef R. Zou'bi, H.E. Prof. Dr. Galym Mukanov, H.E. Prof. Dr. Ibrahim bin Saleh Alnaimi, H.E. Prof. Mou'ni Hamzé, H.E. Prof. Dr. Hasan WANDAL, and H.E. Dr. Fahad M. Alturki

COMSTECH Programs



COMSTECH-IFS Research Grants Programme

COMSTECH and International Foundation for Science (IFS), Stockholm, started joint programme in 1998. The purpose of the collaboration is to enhance research capability in the OIC region.

The joint program is valuable because of the similarity of the mandates and strong common interest in capacity building of the two organizations in the developing countries. The purpose of the collaboration is to enhance research capability within the OIC region, and to reap a rich harvest by obtaining matching grants from IFS (US\$ 0.1 million/year) for OIC scientists and institutions.

This Program has so far financed 394 research projects amounting to US\$ 4.345 million in 32 OIC member states: Afghanistan, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Cote D'Ivoire, Djibouti, Egypt, Gabon, Gambia, Indonesia, Iran, Jordan, Lebanon, Malaysia, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Pakistan, Palestine, Senegal, Sierra Leone, Somali, Sudan, Suriname, Togo, Tunisia and Uganda.

2022 Grantees



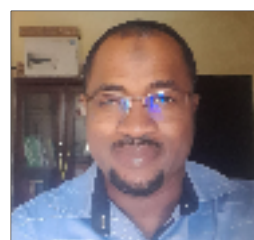
Mohsin Gilani
Pakistan



Hicham, Farsi
Morocco



Adebowale, Tolulope
Nigeria



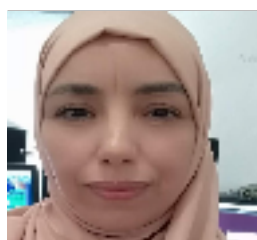
Bello, M. Bashir
Nigeria



Libanio, Daouda
Benin



Adekunle, Latifat
Nigeria



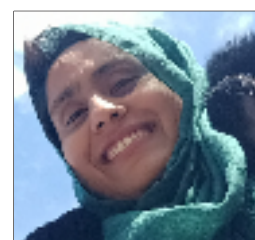
Kdidi, Samia
Tunisia



Baquy, M. Abdulaha-Al
Bangladesh



Mariam, Barro
Burkina Faso



Rafiq, Amna
Pakistan



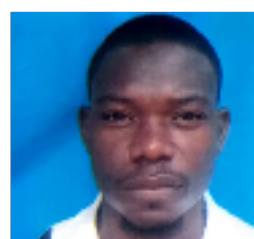
Abdou Razakou
Niger



Amegnaglo, Kossi
Togo



Fatumah, Nakiguli
Uganda



Mahamadi, Nikiema
Burkina Faso



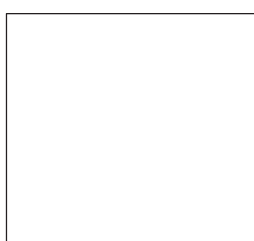
Babatola, Leye
Nigeria



Abderahim, Ahmadou
Mali



Ntoumba, Agnes
Cameroon



Dotchamou, Titilayo
Benin

COMSTECH-IFS Research Grantees

Researcher: MOHSIN GILANI, Syed Mashkoor
Country: Pakistan
Grant: \$12,000
Project: Transmission Dynamics of Antimicrobial Resistance in Broiler Production Pyramid: A Farm to Fork Study

Researcher: HICHAM, Farsi
Country: Morocco
Grant: \$10,685
Project: Sleep and circadian rhythms under the harsh desert biotope conditions: Effect of heat stress and dehydration in the dromedary camel and the Moroccan black desert goat.

Researcher: ADEBOWALE, Tolulope
Country: Nigeria
Grant: \$12,000
Project: Fortification of Cassava By-Product as an Alternative to Maize in Meat-type Poultry Birds Production

Researcher: BELLO, Muhammad Bashir
Country: Nigeria
Grant: \$14,870
Project: Molecular and biological characterisation of some poultry respiratory viruses in Northwestern Nigeria

Researcher: LIBANIO, Daouda
Country: Benin
Grant: \$10,329
Project: Morpho-biometric and genetic characterization of the local population of domestic Moscovy duck (*Cairina moschata*) bred in South Benin.

Researcher: ADEKUNLE, Latifat
Country: Nigeria
Grant: \$11,621
Project: The immunomodulation of micronutrient supplementation on infectious Bursal disease virus response in commercial chickens

Researcher: KDIDI, Samia
Country: Tunisia
Grant: \$14,837
Project: Design of small SNP panel to predict dairy breed proportion in Tunisian crossbred goat population

Researcher: BAQUY, M. Abdulaha-Al
Country: Bangladesh
Grant: \$12,129
Project: Evaluation of phosphorus availability, retention, and uptake by maize plants after incorporation of organic-coated biochar in low-fertility soils

Researcher: MARIAM, Barro
Country: Burkina Faso
Grant: \$14,955
Project: Evaluation of agricultural practices and their impact on rice plant health and productivity in Burkina Faso

Researcher: RAFIQ, Amna
Country: Pakistan
Grant: \$15,000
Project: Development of instrument free, inexpensive, paper based devices for the detection of agricultural pathogens
Researcher: ABDYOU RAZAKOU, Ibrahim Bio Yerima
Country: Niger
Grant: \$12,000
Project: Improving the productivity of an orphan small grain cereal crop: the fonio millet (*Digitaria exilis*) in Niger.

Researcher: DOTCHAMOU, Titilayo Oyélèyè Fafunkè
Country: Benin
Grant: \$11,984
Project: Influence of combined effects of climate and anthropogenic pressures on the spatial distribution of forest reserves in northern Benin, West Africa: Case of Wari-Marô and Oueme supérieur forest reserves

Researcher: AMEGNAGLO, Kossi Bèssan
Country: Togo
Grant: \$11,951
Project: Multi-dimensional evaluation of grazed plant communities and pastoral resources management approaches in the multifunctional landscapes of the sudanian zone of Togo (West Africa)

Researcher: FATUMAH, Nakiguli
Country: Uganda
Grant: \$12,000
Project: Assessment of the post-release effects of the reintroduced Barbour's Vlei Rodent (*Otomys barbouri*) population in Mabira Forest, Central Uganda

COMSTECH-IFS Research Grantees

Researcher: MAHAMADI, Nikiema

Country: Burkina Faso

Grant: \$11,714

Project: Agronomic enhancement of Anacardium Occidental cashew nut shell digestate from anaerobic digestion

Researcher: BABATOLA, Leye

Country: Nigeria

Grant: \$13,384

Project: Impact of Climate Change on Nutrient, Antioxidant and Medicinal Properties of Some Tropical Leafy Vegetables in Nigeria

Researcher: ABDERAHIM, Ahmadou

Country: Mali

Grant: \$15,000

Project: Implement a decision support system to control mycotoxin contamination in raw milk production in Bamako-Mali - MILKSAFE

Researcher: NTOUMBA, Agnes

Country: Cameroon

Grant: \$13,335

Project: Bioinsecticides against Anopheles gambiae: plants and nanoparticles

Country-wise Distribution of COMSTECH – IFS Grantees from 1998 to 2022

#	Country	Grantee	Grant (US\$)
1.	Afghanistan	1	11,900
2.	Algeria	1	12,000
3.	Bangladesh	21	230,200
4.	Benin	35	382,061
5.	Burkina Faso	25	256,184
6.	Cameroon	22	250,168
7.	Cote d'Ivoire	21	225,838
8.	Djibouti	1	9,500
9.	Egypt	13	148,230
10.	Gabon	2	23,500
11.	Gambia	2	19,534
12.	Indonesia	14	167,220
13.	Iran	15	160,610
14.	Jordan	5	55,500
15.	Lebanon	2	23,500
16.	Malaysia	13	125,850
17.	Mali	11	114,044
18.	Mauritania	1	12,000
19.	Morocco	13	130,655
20.	Mozambique	6	69,850
21.	Niger	10	107,745
22.	Nigeria	30	333,313
23.	Pakistan	48	548,534
24.	Palestine	2	22,000
25.	Senegal	12	128,631
26.	Somalia	1	12,000
27.	Sierra Leone	4	47,920
28.	Sudan	10	115,965
29.	Suriname	1	12,000
30.	Togo	15	170,471
31.	Tunisia	14	161,538
32.	Uganda	21	236,304
Total		394	4,345,707

COMSTECH-ICGEB Cooperation Programme

COMSTECH signed a memorandum of understanding with ICGEB in April 2022, to establish a general framework for cooperation in science, education, and technology.

COMSTECH-ICGEB programme, launched in January 2022, is offering research grants, fellowships and visiting professorship scheme to organize workshops in emerging technologies for capacity building of OIC states in various aspects of biotechnology and genetic engineering.

International Centre for Genetic Engineering and Biotechnology (ICGEB) is based in Trieste, (Italy), Durban (South Africa), and New Delhi (India). COMSTECH is an OIC Ministerial Standing Committee on Scientific and Technological Cooperation based in Islamabad, Pakistan.

In the first year, under this program five research grants and six fellowships, worth 52.65 million rupees have been granted to the researchers from OIC states.

Researchers from Cameroon, Iran, Iraq, Nigeria, Sudan and Tunisia have been granted fellowships of 3 to 10 months duration, which will be hosted by Hungary, South Africa, Saudi Arabia, Algeria and Italy. The research projects submitted by researchers from Algeria, Iran, Kuwait, Malaysia and Pakistan have been given research grants worth 20,000 Euro each.



COMSTECH-CCoE Yemen Program

COMSTECH in collaboration with Embassy of the Republic of Yemen in Islamabad launches “COMSTECH-CCoE Yemen Programme” in June 2022 for the capacity building of Yemeni scientists. H. E. Mohammed Motahar Alashabi, the Ambassador of Yemen had a series of meetings with Coordinator General COMSTECH to start this programme.

Under this programme COMSTECH initially announces 50 fellowships for Yemeni nationals who are currently in Yemen. These fellowships are being offered by members of COMSTECH Consortium of Excellence (CCoE), International Center for Chemical and Biological Sciences (ICCBS) (University of Karachi), The University of Lahore, Lahore, and Health Services Academy (HSA), Islamabad.

COMSTECH-TWAS Science In Exile Programme

United Nations Educational, Scientific and Cultural Organization (UNESCO) and The World Academy of Sciences (TWAS) have partnered with COMSTECH the Ministerial Standing Committee on Scientific and Technological Cooperation of the Organization of Islamic Cooperation (OIC) in 2021 to launch the UNESCO–TWAS–COMSTECH Science in Exile Fellowship Programme for displaced and refugee scholars and scientists.

The fellowship programme aims to provide displaced and refugee scholars and scientists who have not yet found a safe and long-term host country to pursue doctoral studies in Pakistan, at institutions which are members of the COMSTECH Consortium of Excellence (CCoE).

Fellowships are full-time and tenable in Pakistan at one of the academic and science, technology and engineering research member institutions of the CCoE.



COMSTECH Research Fellowships For LDCs in OIC

In April 2022, COMSTECH and prestigious member Institutions of COMSTECH Consortium of Excellence jointly offer research fellowships to young researcher in OIC countries to enable them to spend 6-12 months at a relevant center of excellence in many listed institutions of OIC member states.

The purpose of these fellowships is to enhance the research and development capacity of promising researchers and engineers, and helping them to foster linkages for further collaboration in their fields, especially those who are from least developed OIC member states and are at the beginning of their research career.

COMSTECH Fellowships for Virology and Vaccine Technologies

In 2021, COMSTECH in collaboration with key centers of excellence in OIC countries, announced the training scholarship in the fields of virology and vaccine technology. This is indeed an attempt to prepare next generation of scientists of OIC nations to meet the challenge of current and future pandemics/epidemics.

COMSTECH jointly offers fellowships to young scientists from OIC countries to enable them to spend 3 months at a relevant center of excellence in another OIC country.

The purpose of these fellowships is to enhance the research and development capacity of promising scientists, especially those at the beginning of their research career, helping them to foster linkages for further collaboration in the fields of virology and vaccine technology.



COMSTECH Scholarships and Fellowships for Palestine Nationals

COMSTECH has launched in 2022 a special program offering scholarships, research fellowships, technicians training & workshop participation grants for Palestinian students.

This program is a collaborative effort of the member institutions of COMSTECH Consortium of Excellence, Association of Private Sector Universities of Pakistan, and COMSTECH.

These scholarships and research fellowships are being provided to undergraduate, graduate students, and research fellows. Workshop participation is being facilitated for the students, scientists, engineers and technicians of the State of Palestine.

COMSTECH Consortium of Excellence

COMSTECH has launched “COMSTECH Consortium of Excellence (CCoE)” in Sept. 2020, comprising upon key academic, science, technology and engineering research institutions of OIC member countries.

The strategic goals of the CCoE are:

- Create S&T interdependence among OIC states.
- Build capacity in key areas of S&T through exchange programs and Institutional linkages.
- Provide enabling environment to increase investment, and trade through technology-based projects within OIC member countries.
- Build an ecosystem of collaboration and enable knowledge-based economic growth in the OIC Region.

Below is the list of CCoE member institutions.

- International Center for Chemical and Biological Sciences (ICCBS) University of Karachi, Karachi
- National University of Science and Technology (NUST), Islamabad
- Ghulam Ishaq Khan Institute of Engineering Sciences & Technology (GIKI), Swabi
- Quaid-e-Azam University, Islamabad
- Lahore University of Management Sciences (LUMS), Lahore
- National Institute of Health (NIH), Islamabad
- Pakistan Institute of Nuclear Science and Technology (PINSTECH), Islamabad
- Government College University, Lahore
- University of Karachi, Karachi
- University of the Punjab, Lahore
- COMSATS University, Islamabad
- University of Peshawar
- University of Lahore, Lahore
- NED University of Engineering and Technology (NEDUET), University Road, Karachi
- The Islamia University of Bahawalpur, Bahawalpur
- Bahauddin Zakaria University (BZU), Multan
- Baluchistan University of Engineering and Technology (BUET), Khuzdar, Baluchistan
- Baluchistan University of Information Technology, Engineering and Management Sciences (BUIEMS), Quetta, Baluchistan
- Al- Shifa Trust Eye Hospital Rawalpindi, Pakistan
- Netkent Mediterranean Research and Science University, Lefkoşa, TRNC, Turkey
- TÜBİTAK, Ankara, Turkey
- Khwaja Fareed University of Engineering & Information Technology (KFUEIT), Rahim Yar Khan, Pakistan (Associate Member)
- PCSIR, Islamabad
- PCRWR, Islamabad
- Institute of Space Technology, Islamabad
- Health Service Academy, Islamabad
- Agha Khan University Medical College, Karachi
- NRC, Cairo, Egypt
- Superior University, Lahore
- Middle East Technical University, Ankara, Turkey
- Islamic University in Uganda, Uganda
- Shahid Beheshti University of Medical Sciences, Tehran, Iran
- Islamic University of Technology, Bangladesh
- Universiti Teknologi MARA, Malaysia
- Universitas Airlangga, Surabaya, Indonesia
- Bangladesh University of Health Sciences, Bangladesh
- International Islamic University (IIUI), Islamabad
- Kazan Federal University, Kazan, Russian Federation
- Virtual University of Pakistan, Lahore
- National University of Technology, Islamabad
- University of Sargodha
- University of Management and Technology, Lahore
- Sultan Qaboos University, Oman
- International Institute of Science, Art and Technology, Gujranwala
- University of Sialkot (Associate Member)



COMSTECH STI Profiles of OIC Member States

The member countries of the OIC are vigorously engaged with science, technology and innovation, both as a pursuit of knowledge and in harnessing the forces of nature for human betterment. Depending on their circumstances they have advanced to different levels, but much needs to be done, in general, to catch up with the attainments of the more advanced countries.

However, there exists a well-defined need to catalogue national efforts in this direction. In particular, to identify respective strengths, achievements and shortcomings, as well as the institutions and policies that are shaping the scientific research and development profiles of OIC member states.

To achieve the above mentioned goals COMSTECH

has ventured in September 2021 on this ambitious task of preparing a summarized version of the science, technology and innovation landscape of each OIC member state.

COMSTECH hopes that the scientific community as well as the planners and administrators of member states will find these profiles both useful and inspiring.



COMSTECH Technology and Innovation Portal

The COMSTECH Technology and Innovation Portal is a digital platform to showcase the prowess of scientists and innovators from the OIC world. The portal is in line with the Science, Technology and Innovation (STI) Agenda 2026 initiated by The Organization of Islamic Cooperation (OIC). It provides an ecosystem to key actors in OIC states to showcase innovative solutions and technologies that tackle the challenges within the OIC world and to build a culture of science and innovation amongst the Muslim nations.

The portal enables innovators, startups, SMEs, academics, governments and NGOs, to benefit from this tailor-made database. It will bring meaningful change to the lives of millions of people across the OIC member countries by giving every scientist, technologist and innovator an opportunity to make a difference to the Muslim world.

The portal was launched in October 2021.



COMSTECH Africa Program in Health and STI

COMSTECH Africa programme include:

- Research Grants for Young Scientists
- Research Fellowships Program
- Technicians Training Program
- Technical Cooperation
- Eye Camps, Training in Ophthalmology and Repair of Medical Equipment

In November 2021, COMSTECH and LRBT in collaboration with the IsDB organized free eye camps in The Gambia and the Republic of Niger and carried out cataract surgeries, maintenance of eye medical equipment, and training workshop for cataract surgery.



Reverse Linkages Programme with IsDB

COMSTECH and IsDB are strategic partners working on several projects including Reverse Linkages Programme through South-South Cooperation (SSC) to connect developing countries to help solve common problems.

Reverse Linkage is a technical cooperation mechanism enabled by the IsDB where OIC countries exchange their knowledge, expertise, technology and resources to develop their capacities and devise solutions for their autonomous development.

Sixteen Resource Centers in Pakistan are mapped by IsDB as Provider Institutions for Reverse Linkage Program with focus on Agriculture, Agro-based Industry, Pharmaceuticals Industry, Information Communication Technology.

More than 10 Reverse Linkage projects such as vaccine development, improvement of corn variety, SMART Agriculture, cancer therapy & food packaging have been submitted to IsDB by COMSTECH in collaboration with OIC countries including Saudi Arabia, Sudan, Malaysia & Turkey.

Under the program, a project “Consultancy for Capacity Building in Fruit Juice Production in Nigeria” has been initiated. A Nigerian delegation visited Pakistan to witness the best practices being used by Pakistani academic, research and commercial institutions for production and marketing of best quality fruit juices and other products, and offering to facilitate them to practice these in Nigeria. A team of Pakistani experts has been selected to provide consultancy and training to Nigerian scientists and framers for capacity building and transfer of technologies to improve their system and processes.

Under the Technical Cooperation Program of IsDB, Al-Khwarizmi Institute of Computer Sciences (KICS), University of Engineering and Technology (UET), Lahore under a project “Supporting the Establishment of a Computer Science MS(CS) program in the university of the Gambia” has provided expertise in the establishment of MS(CS) program at the University of Gambia, trained the faculty and staff, helped in curriculum development, and provided design consultancy for newly established Faraba campus. KICS assisted in R&D of different IT domains which include software systems, embed systems, wireless and networking technologies, information technologies, and industrial automation.

The main objective of the IsDB funded project was to enhance the capacity of the faculty and staff in areas of computer science and machine learning.

For this purpose:

1. KICS developed customized 10 courses for MS(CS) program.
2. UTG faculty members got 4-week training session at KICS.
3. Experts and IT staff from KICS visited UTG for survey of IT infrastructure, design, and documentation.

By appreciating the efforts of KICS, UET Lahore, to reuse the KICS' expertise, IsDB has planned to establish an ICT vocational training laboratory in 2023 at University of Gambia.

Similarly, IsDB has asked COMSTECH to help Islamic University in Uganda, Kampala, in establishing a Halal Products Research and Development Laboratory in collaboration with International Center for Chemical and Biological Sciences (ICCBS).



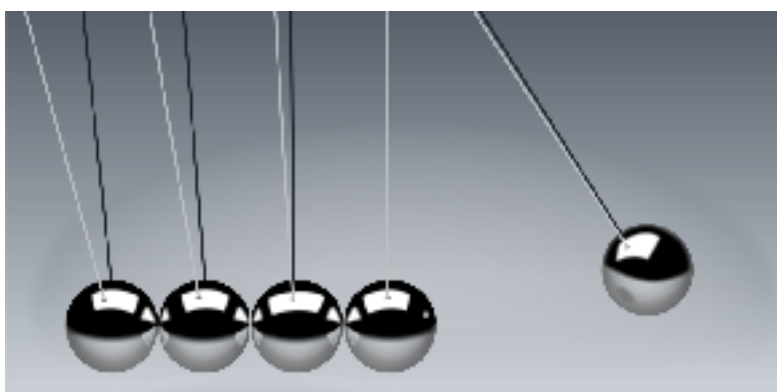
COMSTECH Distinguished Scholars Program

In September 2020, COMSTECH started the Distinguished Scholars Program focusing on building the scientific capacity of the OIC member states in various scientific fields of science, technology, & innovation (STI), through benefitting from the best talent globally. In this program, top distinguished scientists/ engineers are engaged to serve as experts for inter-Islamic activities.

The nominated eminent scholars are requested by COMSTECH to conduct online webinars and physical workshops/ training courses in the OIC member countries along with reviewing academic structure for

institutions that request it.

So far, 41 eminent scholars with expertise in Science, Technology, Engineering and Mathematics have been inducted into the distinguished scholars program. This initiative will allow scholars to showcase their prowess in the field internationally, and would allow other countries to learn from trained eminent scientists and engineers.



COMSTECH Basic Sciences Program

COMSTECH has initiated a new program to incorporate the most recent developments in the area of basic sciences. Under this program, COMSTECH aims to promote capacity building in the fields of mathematics, physics, chemistry, biology, and their interdisciplinary areas. Under the program online lectures are being arranged to address the fundamental concept of basic fields of science. The program was started in September 2021.

COMSTECH Technician Training Program

COMSTECH offers internships to technical personnel in developing OIC countries to enable them to spend 4-6 weeks at a centre of excellence/ university in the OIC member state, and learn the operations, trouble shooting and related details of state-of-the-art instrumentations. The purpose of these fellowships is to strengthen the capacity of technical manpower in the effective and optimal use of expensive and sophisticated research equipment.

In the first cycle of this initiative, 24 candidates from Azerbaijan, Egypt, Gambia, Gabon, Indonesia, Kazakhstan, Nigeria, Pakistan, Sudan, Uzbekistan and Yemen have been selected and placed at the International Center for Chemical And Biological Sciences (CCBS), University of Lahore, The Ghulam Ishaq Khan Institute of Engineering Sciences and



Technology (GIKI), Government College University, National University of Science and Technology (NUST), National Institute of Health (NIH), COMSATS University Islamabad, and the University of Punjab.

The program was started in February 2021.

COMSTECH-CCoE Kyrgyzstan Programme

COMSTECH and Kyrgyzstan are in process to launch the COMSTECH-Kyrgyzstan Program. The program will include: Research fellowships, international workshops, exhibitions of products developed by the universities, and technicians training program.

Research fellowships will be offered to young researchers/ scientists/engineers of Kyrgyzstan and Pakistan to enable them to spend 6-12 months at a relevant center of excellence in of OIC states, especially in Pakistan. International workshops will be organized in Pakistan, in the areas of climate change, healthcare, biotechnology, artificial intelligence, machine learning

and deep learning. Exhibitions of products, developed by the students/ researchers in the universities of Kyrgyzstan and Pakistan, will be organized. Technicians/Researchers from Kyrgyzstan will spend 4-6 weeks at a center of excellence/ university in OIC member states to learn the operations of the state-of-the-art instruments.



COMSTECH-CCoE Nigeria Program

In September 2022, COMSTECH launched COMSTECH-Nigeria Science and Technology Cooperation Program in a press conference which was attended by senior diplomats of various OIC countries, officers of ministries of foreign affairs and science and technology, academicians and Nigerian students studying in Pakistan.

Coordinator General, COMSTECH, Prof. Dr. M. Iqbal Choudhary and the High Commissioner of Nigeria, H. E. Mr. Mohammed Bello Abioye jointly addressed the press conference at COMSTECH.

Prof. Choudhary said that COMSTECH continues to serve member states in the sphere of Science & Technology as its mandate and strategic vision. He said that COMSTECH launches a purposeful COMSTECH-Nigeria S&T Cooperation Program for capacity building of the brotherly state. Prof. Choudhary thanked the Government of Nigeria for accepting proposed collaborative program and constituting an inter-ministerial Committee to explore

the implementation of this initiative. The Raw Materials Research and Development Council, (RMRDC), Abuja, Nigeria is focal organization to implement the program. Prof. Choudhary informed that the purpose of this collaboration is to help the Nigerian S&T institutions for capacity building for socio-economic uplift of the country.

The High Commissioner of Nigeria, H. E. Mr. Mohammed Bello Abioye appreciated the efforts of COMSTECH and offered full support from his office to COMSTECH-Nigeria S&T Cooperation. He assured that Nigeria would also help the other African OIC countries for their uplift.

H. E. Ambassador Askar Mussinov, Assistant Secretary General Science and Technology OIC addressed the session online. He said OIC General Secretariat is working closely with COMSTECH on several major initiatives and programs.

COMSTECH-Nigeria Program includes Launching of women scientist research fellowship program, institution linkages between Nigeria and Pakistan, capacity building of Nigerian scholars and students, launching of book comprising of joint research publications and patents of Pakistani and Nigerian scientists, industrial internship of Nigerian professionals in food processing and value addition, and study visit of Pakistani students to Nigeria.

COMSTECH-CCoE Sudan Program

COMSTECH in collaboration with the Embassy of Sudan in Islamabad is in process to launch “COMSTECH-Sudan Collaborative Program in Science and Technology” for the capacity building of Sudanese scientists and students. In the first phase, the COMSTECH-Sudan Program will include:

1. Fellowship Program

COMSTECH in collaboration with the member institutions of COMSTECH Consortium of Excellence (CCoE) will offer fully funded 10 research fellowships to the Sudanese students and researchers who are currently living and working in Sudan. The fields of fellowships will be:

1. Agriculture
2. Engineering
3. Information Technology
4. Public Health
5. Drug Discovery and Development

2. Workshops and Training Courses

COMSTECH in collaboration with the relevant institutions in Sudan will organize thematic workshops and training courses on emerging technologies relevant to the national and regional needs.



3. Compilation of a Book of Joint Research Publications and Patents

COMSTECH in collaboration will compile a book of research publications and patents, jointly published by the Pakistani and Sudanese scientists in the last two decades.

4. Women in Science Fellowship Program

Sudanese women scientists will be able to benefit from “Women in Science” fellowship program to conduct research studies in leading R&D institutions of Pakistan, and other COMSTECH member states.

5. Skill Development Fellowship Program

- a. CAD/CAM Program
- b. CAD Software
- c. CNC Programming and Maintaining Course (FANUC-01, SIEMENS828, H. HTNC), Machine Building Course

COMSTECH-CCoE Somalia Program

COMSTECH is in process to launch a collaborative S&T program with Somalia to invite top two universities to join the COMSTECH Consortium of Excellence, offer training in agriculture, food security, health, technician training, fellowships and conduct health camps in the fields of ophthalmology/ cataract surgery and capacity building workshops.

COMSTECH Five Year Action Plan on Health for African Countries

Strengthening health systems requires a sound monitoring strategy that enables decision-makers to accurately track health progress and performance, evaluate impact, and endorse accountability at country, region and OIC levels.

The Five Year Action Plan on Health for African Countries describes a set of interventions and related strategic, operational, monitoring and evaluation plan. The plan describes (i) Awareness and collaboration on health sector (ii) Strengthen linkages and virtual networks (iii) Capacity building of doctors, researchers and technicians (iv) Strengthen health policy training.

The process will harmonize donor funding commitments, Islamic Development Bank (IsDB), Islamic Solidarity Fund, and improve the way in which international agencies, donors, COMSTECH, Statistical, Economic and Social Research and training Center for Islamic Countries (SESRIC) and developing countries particularly least developed countries in

Africa will work together to develop and implement health plan.

1. Vision

To envisage such Muslim Ummah in which everyone receives safe and respectful healthcare, every time and everywhere.

2. Mission

To provide public health facilities in African countries through well trained and experienced health care professionals.

3. Objectives

- i. Strengthen awareness and collaboration of Health Sector through effective communication and education.
- ii. Strengthen Linkages and Virtual Networks of Institutions in various Fields of Healthcare
- iii. Capacity Building of Doctors, Researcher and Technicians
- iv. Strengthen Health Policy Training



COMSTECH Launches Alliance of Islamic Universities of Africa

In December 2022, COMSTECH organized foundation meeting of the Alliance of Islamic Universities of Africa at COMSTECH Secretariat. Vice Chancellors/Rectors of Muslim Universities from Uganda, Nigeria, Kenya, Tanzania, Kazakhstan, and Pakistan participated in the meeting.

Chairman HEC, Prof. Dr. Mukhtar Ahmed was the chief guest of the meeting. He welcomed the delegates to the foundation meeting of Alliance of Islamic Universities of Africa and appreciated the efforts of Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, for organizing this much needed meeting to support Muslim brothers/sisters, and young minds of Africa in the fields of science, technology and higher education.

Chairman HEC suggested that the collaborations, knowledge sharing, best practices, exchange of scholars, educational technology transfer, and joint programs among higher education institutions of Africa and Pakistan can help to overcome the challenges if initiatives like the Alliance of Islamic Universities of Africa are well thought-out and well executed in true spirit.

Dr. Mukhtar said that the alliance will open avenues to share ideas, skills, expertise, and best practices to pool resources for mutual support and benefit for each institution. He, on the behalf of the HEC, assured sustained support to COMSTECH programs.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said that the idea of forming an alliance of Muslim Universities in non-OIC countries or in Muslim majority areas of OIC member states came out of discussion with Prof. Ismail, Vice Chancellor Islamic University in Uganda. He said the key motivation of this vision was to foster linkages between the Islamic universities of Africa and leading universities of the OIC region.

Prof. Choudhary said that harnessing the creative potential of young African Muslims is the only way forward for the prosperity and development of Muslim communities in African continent. With this objective in mind, this alliance is created under the leadership of Prof. Ismail Gyagenda. Prof. Choudhary concluded his remarks with the commitment to work closely with universities in Africa and Pakistan for a prosperous future of youth in African countries.

Opening remarks were delivered by Prof. Dr. Asmat of ICCBS. She welcomed the participants and gave comprehensive introduction of the meeting agenda, aims, and objectives.



COMSTECH Awards

COMSTECH decided in 1996 to give awards to recognize outstanding research work carried out by scientists who are citizens of, and working in, OIC member states. Each award carries a certificate, shield of honor and cash prize. COMSTECH gives awards in “Basic Sciences” and “Excellence in Science and Technology”.

BASIC SCIENCES

The basic sciences award is given in the fields of Biology and Chemistry alternating biennially with Mathematics and Physics. Each award carries a cash prize of US\$ 5000. The awards in Basic Sciences are conferred on the recipients by H.E. President of Pakistan (Chairman COMSTECH) in the COMSTECH General Assembly meeting.

EXCELLENCE IN SCIENCE & TECHNOLOGY

These biennial awards started in 2009, carry a certificate, shield of honor and cash prize.

1. Best Young Researcher Award

This award is for scientists under the age of 40. Carries cash prize of US\$ 3,000.

2. Best Scientific Book Award

This award is for the author of an outstanding scientific book published by internationally renowned publisher during the last two years. Carries cash prize of US\$ 3,000.

3. Award for Patent

This award recognizes individuals for outstanding contribution that have had lasting impact in furthering the theory and or development of commercial systems. The patent must have been registered during the past five years. Carries cash prize of US\$ 3,000.

4. Best Research Paper Award

This award recognizes outstanding research paper published in an international journal in the last two years. The award is given in each of the four basic sciences (Biology, Chemistry, Mathematics and Physics). The award in each discipline carries cash prize of US\$ 2000.



COMSTECH Contributes USD5000 to 35th Khwarizmi International Award

The Iranian Research Organization for Science and Technology (IROST) bestows with the Khwarizmi International Award (KIA) to recognize the efforts made by researchers, innovators and inventors from all over the world and to appreciate their invaluable achievements and contributions to various fields of science and technology. COMSTECH has been contributing US\$5000/- annually since Twelfth Khwarizmi International Award, in 2022 provided US\$5000 for the 35th Khwarizmi International Award.

The Khwarizmi International Award is named after Muhammad ibn Musa al-Khwarizmi, the Iranian mathematician and astronomer, in memory of his achievements.

The Khwarizmi International Award consists upon an engraved trophy, certificate — with inscription of the awardee's contributions, and the signature of H. E. the President of the Islamic Republic of Iran and the Chairman of the KIA — a valuable Prize, and the four-day academic visit to the Islamic Republic of Iran, including the delivery of lectures at different scientific institutions.

The award is personally presented to the KIA Laureates by His Excellency, the President of the Islamic Republic of Iran.



COMSTECH Launches Forum on Environment and Ecosystem Restoration

COMSTECH Launched Forum on Environment and Ecosystem Restoration (CFEER) and organized COMSTECH International Seminar on Land Degradation, and commemorated World Environment Day on June 6, 2022 at COMSTECH Secretariat. The event was hybrid which was attended by in-person and online participants.

The message of the Secretary General of OIC, H. E. Hissein Brahim Taha, was delivered by the Assistant Secretary General of S&T OIC, Ambassador Askar Musinov. Mr. Taha said that the world environment day is an important international day for world environment. The Organization of Islamic Cooperation (OIC) joins the international community in celebrating this day. He said This year's theme "Only one Earth" with the focus on "living sustainably in harmony with nature" gives us opportunity to protect our earth and adopt green technologies. He said the developed countries must encourage and support developing countries to develop green technologies. He said the OIC attaches high importance to the concerns related to environment, climate change and biodiversity. He urged the integrated measures to reduce effects of climate change and natural disasters. He stressed the need of incorporating environmental concerns in the international strategies for sustainable development. He suggested that the international and regional cooperation needs to be strengthened in areas of climate change in order to protecting the nature for wellbeing of our future generations.

The Coordinator General, COMSTECH said in his welcome address that based on the central importance of the fast emerging environmental and ecosystem challenges and their impact on the livelihood of people in OIC region, we have decided to launch a permanent forum to deliberate upon collective actions to meet these ecological challenges. In the Muslim lands urban expansion continues, whereas desertification, soil erosion, low vegetation covers, and depletion of fresh water bodies has created an alarming situation which demands urgent and collective actions to avoid fast approaching major human tragedies. Prof. Choudhary said that the COMSTECH Forum of Environment and Ecosystem Restoration will be working in the Framework of the UN Decade on Ecosystem Restoration 2021-2030, as well as the UN Framework

on UN 2030 SDG Agenda. He informed that the importance of the environment for sustainable social and economic development is well stipulated in the OIC-2025 Program of Action as well as STI agenda, which guides member countries to protect and preserve the environment, promote sustainable production and consumption patterns and enhance capacities for disaster risk reduction as well as climate change mitigation and adaptation. Prof. Choudhary hoped that COMSTECH Forum on Environment and Ecosystem Restoration will strengthen the work of the OIC in these areas.

Advisor Climate Change COMSTECH, Ambassador Shahid Kamal said in his opening remarks that today's event is taking place in the backdrop of the World Environment Day which calls for collective global action to protect and restore our planet. He said today COMSTECH launching the forum on environment and ecosystem restoration to provide a collaborative platform to address challenges of climate change.

The inaugural session was also addressed by Dr. Dechen Tsering, regional director and representative for Asia and the Pacific, UN environment program, Bangkok, Dr. Barron Joseph Orr, Lead scientist at United Nations convention to combat desertification, Bonn, and Dr. Djime Adoum, representative of the Sahel coalition, and Dr. Paul Ouedraogo, Deputy executive secretary, CILSS-permanent interstate committee for drought control in the Sahel.

Eight international experts participated in the international seminar on land degradation and delivered talks on land degradation, food systems, crop modelling, and the activities performed in Tanzania, Tunisia and The Gambia to address this phenomenon.



COMSTECH-LRBT Team of Ophthalmologists Visits Niger

COMSTECH and LRBT team completed 8-day visit to Niamey, Niger. During the visit it organized an eye camp and training workshop at National Hospital, in Niamey. The team conducted 490 eye surgeries and one training workshop. After having training, the local doctors performed 28 surgeries.

A seven-member team of experienced ophthalmologists from Layton Rahmatulla Benevolent Trust (LRBT), Pakistan visited Niger from Jan. 31 to 7 Feb. 2022.

This visit was arranged by COMSTECH and LRBT in collaboration with Islamic Development Bank (IsDB), and coordination of Pakistani mission in Niger. All the consumables and medicines for this eye camp were transported from Pakistan and the accommodation was provided by the Ministry of Health, Niger.

This was the second visit of COMSTECH and LRBT team. It visited Niamey during third week of November last year and conducted 25 cataract surgeries, serviced and repaired all the faulty equipment and made it available for screening and cataract surgeries.

Niger authorities are highly satisfied with the performance of COMSTECH-LRBT team and requested for regular visits of the ophthalmologists to conduct cataract surgeries. These visits are part of COMSTECH program of health and higher education for Africa.

The objectives were to provide free high-quality sight-restoring cataract surgeries, post-operative treatment, reduce blindness related poverty and eliminate reliance on assistance of others, build the capacity of local health professionals during the campaign to identify eye problem, screen, and provide care.

Layton Rahmatullah Benevolent Trust (LRBT) is the largest NGO of Pakistan, fighting blindness and transforming lives. COMSTECH is an OIC Ministerial Standing Committee on Scientific and Technological Cooperation headquartered in Islamabad with the objective to enhance scientific and technological cooperation among OIC member states to achieve socio-economic development in the Muslim world.



COMSTECH Launches Proceedings of Global Al-Farabi Forum

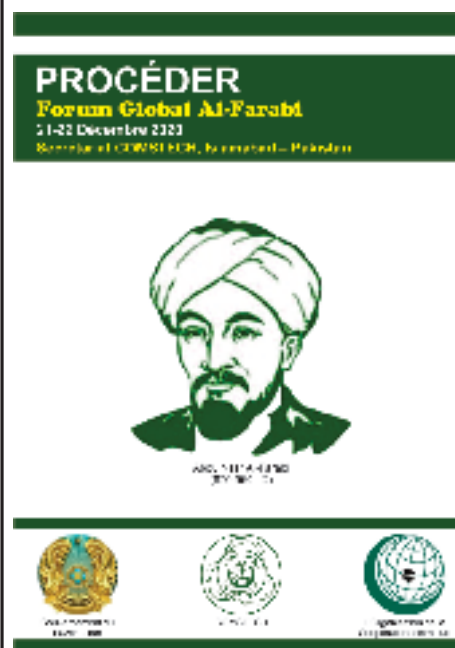
In February 2022, COMSTECH Launched the Proceedings of the Global Al-Farabi Forum. The launching ceremony of the proceedings of the Global Al-Farabi forum held at COMSTECH Secretariat.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said that this is very important to celebrate the contributions of great Muslim scholars, such as Abu Nasr Al-Farabi. He said that the proceedings present best writings on the contributions of Al-Farabi. The objective is to build the legacy of this great scholar for new generation.

Consultant in advocacy, communication, education, and human rights, Dr. Naazir Mahmood said that the proceedings of Al-Farabi forum contains multi-dimensional aspects of work and life of the great scholar - Al-Farabi. He proposed that it should be translated into many other languages so that a vast number of people can get benefit from this account.

Advisor COMSTECH, Dr. Khurshid Hasanain, introduced the Global Al-Farabi Forum and its proceedings.

Abu Nasr Al-Fara (Abū Nasr Muhammad ibn Muhammad al-Fārābī) known in the West as Alfarabius; lived in the period between around 872 and 950-951AD. He was a renowned Islamic philosopher and jurist who wrote in the fields of political philosophy, metaphysics, ethics and logic. He was also a scientist, cosmologist, mathematician and music theorist. In Islamic philosophical tradition he was often called "the Second Teacher", following Aristotle who was known as "the First Teacher". He is credited with preserving the original Greek texts during the Middle Ages because of his commentaries and treatises, and influencing many prominent philosophers, such as Ibn-e-Sina (Avicenna) and Maimonides. Through his works, he became well-known in the West as well as the East.



COMSTECH Launches Capacity Building Program for Yemen

COMSTECH in collaboration with Yemen embassy and Ministry of Higher Education and Scientific Research, Government of Yemen announced COMSTECH-CCoE Yemen Program in a press conference in Islamabad at COMSTECH.

The press conference was addressed by the Ambassador of Yemen, H. E. Mohammed Motahar Alashabi, the Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, Vice Chancellor, Health Services Academy (HSA), Prof. Dr. Shahzad Ali Khan, Chairman Board of Governors, University of Lahore (UoL), Mr. Awais Raoof, Co-Director of the International Center for Chemical and Biological Sciences (ICCBS), University of Karachi, Prof. Dr. Farzana Shaheen, and Mr. Ali Sattar, Director, Science Diplomacy, Ministry of Foreign Affairs. The message of the Minister of Science and Technology, H. E. Mr. Agha Hassan Baloch was read in the press conference.

The Minister of Science and Technology appreciated the efforts of the Coordinator General COMSTECH and the Ambassador of Yemen for their efforts to plan and launch this important capacity building program for the Yemeni national. He appreciated the generous offering of fully funded fellowships by University of Lahore, Health Services Academy and International Center for Chemical and Biological Sciences. Mr. Baloch urged the launch of more such tailor made country specific programs for other OIC countries to cater their specific needs, and reiterated the full support by the Ministry of Science and Technology to COMSTECH programs.

The Ambassador of Yemen thanked COMSTECH for launching this program. He appreciated the leadership of Prof. Choudhary and his efforts for launching many capacity building programs for OIC states. He extended thanks from the people of Yemen to the Government of Pakistan, Ministry of Science and Technology, Ministry of Foreign Affairs and the fellowships offering institutions. He offered full

support of the Yemen embassy whenever required for coordination between COMSTECH and the Government of Yemen.

Coordinator General COMSTECH Prof. Dr. M. Iqbal Choudhary welcomed the guests and appreciated the efforts of the Ambassador of Yemen in planning and launching this joint program. Prof. Choudhary thanked the Ministry of Science and Technology and the Ministry of Foreign Affairs for their full support to this and other programs of COMSTECH. He said that this program aims to provide opportunity to the Yemeni scholars and scientists to benefit from the excellence of the three top-class member institutions of the COMSTECH Consortium of Excellence. He said under this program 50 fellowships will be given to Yemeni scientists to obtain training in public health and medical technologies. Prof. Choudhary thanked ICCBS, UoL, and HSA for their generous offering of fellowships to Yemeni nationals. Prof. Choudhary also offered two more programs to Yemen to take part and get benefit from them. These include, COMSTECH Telemedicine Capacity Building Program, and COMSTECH Neuro-critical Care Program.

The Vice Chancellor of HSA, the Co-Director ICCBS and the Chairman Board of Governors, University of Lahore were present at the occasion and spoke to the media. They provided details of the fellowships being offered by their respective institutions.

While talking to the media, Ms. Aala Mazhar Bukhari Director, Ministry of Foreign Affairs appreciated the COMSTECH-Yemen initiative. She said that this program will not only help built capacity of the Yemeni people in the health technologies but also will help nurturing science diplomacy. She said Ministry of Foreign Affairs fully supports such international programs of COMSTECH that help build and nurture diplomatic relations along with the capacity building of science and technology for the socio-economic development. National and International media from OIC member states attended the press conference.



COMSTECH Development Insight Profiles of OIC States

COMSTECH regularly publishes development insight profiles of OIC member states.

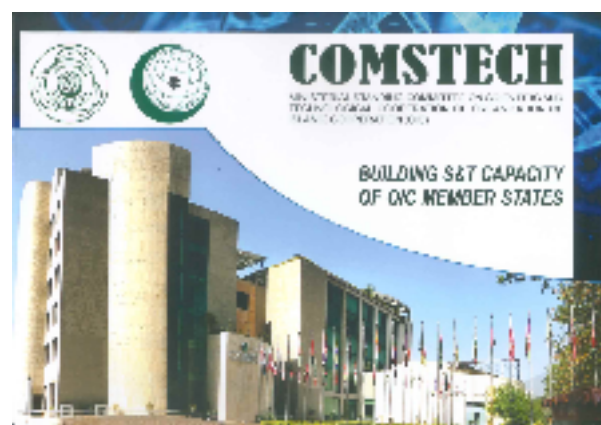
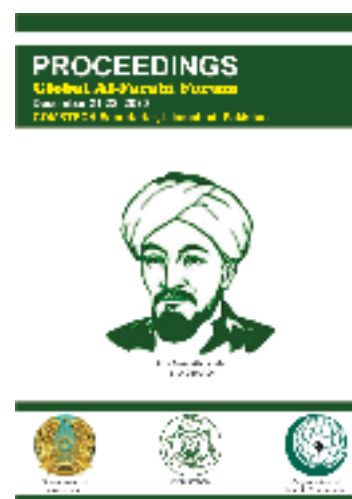
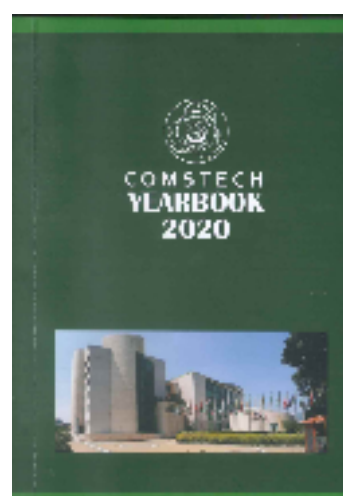
Each profile reflects 37 indicators reflecting the key areas of development.

The purpose of these profiles is to get a comprehensive idea of the key areas that need the immediate attention of the policy makers to improve on.

These profiles also give a comparative overview to find the strengths and weaknesses.



COMSTEC Recent Publications



Training Programs and Conferences/Forums



Webinar on Metabolomics Gateway for Milestone Discoveries

COMSTECH organized a webinar on “Metabolomics Gateway for Milestone Discoveries in the Prehistoric and Post Genomic Era” which was delivered online by Prof. Dr. Mohamed Ali Farag of Cairo University, Egypt.

Prof. Farag said that the metabolomics is the analysis of the cellular processes based on the chemical processes. He said metabolomics is useful in food production in establishing the chemical make-up of food and quality control between different rounds of production.

Prof. Farag said it can be used in medical research to help understand the progression of diseases and to assess the impact of a person's diet and metabolism. He also talked about functional food as well.

Prof. Farag described the history of metabolomics. He said that what we know in science is like the ice-berg in the ocean and not the whole thing. He said that the ability to sequence the whole plant and human genomes has established that our knowledge with respect to gene function is rather limited.

The lecture provided an overview of metabolomics and discussed its complementary role within system biology.

The webinar was attended by students, researchers, scientists, and academicians from the OIC member states.



Webinar on Epigenetics

COMSTECH organized a webinar on “Epigenetics, The Immortal Kiss of our Grandparents” online, which was delivered by Prof. Dr. Rana Dajani, Professor of Biology and Biotechnology at Hashemite University, Jordan. Dr. Dajani talked about the intricate relationship between trauma and resilience from a biological point of view. She discussed theory and practice of conducting research within the humanitarian context of refugees in Jordan. She outlined a journey of discovery from basic surveys to bio-markers and beyond.

Dr. Dajani said that we always talk about scientists from the west or in the past and celebrate them, which is good, but I think today we are in need of celebrating scientists who are living with us so that they can inspire us as a true role model and be inspired to think big. Dr. Dajani urged every scientist to mention scientists in their presentation, who have inspired them and share their names so that world can know about them. She also talked about human displacement crisis and related physical and mental health crisis being faced by the displaced communities.

Prof. Dr. M. Iqbal Choudhary said in his introductory remarks that we know Dr. Dajani as a scientist, activist, humanist and someone with great insight about real issues which humanity face today. Dr. Choudhary said, her out of the box problem solving approach is impressive and optimistic.

Dr. Rana Dajani is Palestinian-Jordanian molecular biologist, professor of biology and biotechnology at Hashemite University. She is member of the United Nations Women Jordan Advisory Council and has been honored with number of prestigious awards.



International Virtual Conference on Neuroscience

COMSTECH organized 2-day 1st COMSTECH International Virtual Conference on Neuroscience.

Prof. Dr. Mohammed Wasay from the section of Neurology, The Aga Khan University welcomed the participants of the conference. He said that this is a great start and I am thankful to Prof. Dr. M. Iqbal Choudhary for his vision. He said OIC region is a very important part of the world. It has 1.9 billion population out of 7 billion world population which is more than 25%. He said that neurological health issues of OIC region are extremely important, they contribute 10% of health care problems in OIC states.

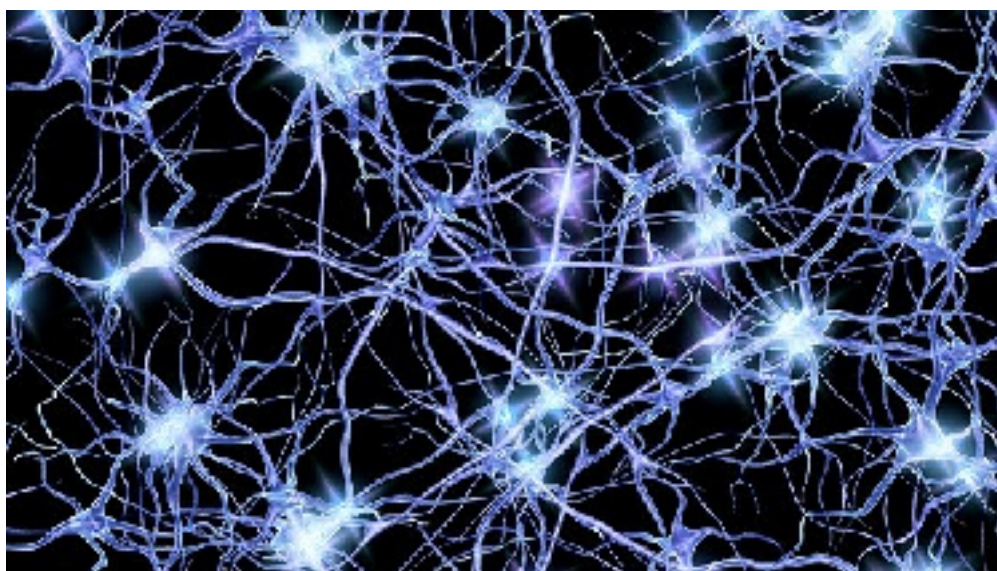
Dr. Wasay said it is very important that we learn, train and improve the care of neurological disorders. COMSTECH & OIC could be a great help in improving neurological disease care in OIC, he mentioned. He said that a lot of training, education and improvement in neurological care is required, especially in middle and low income African and Asian countries. Dr. Wasay concluded that this is an introductory conference to discuss neurological issues and existing capacity in Asia and Africa.

Coordinator General COMSTECH, Prof. Choudhary said that the importance of neuroscience is now globally recognized. He said that Dr. Wasay has

contributed not only in training in the field of neuroscience but also has contributed in raising awareness about neurological problems and the importance of research in this field. Prof. Choudhary said that this conference is a curtain raiser for many activities which COMSTECH is planning in different OIC countries in this field. He said that COMSTECH is meant to undertake S&T as a vehicle for development and we all understand that the S&T is the driver of change, without science and technology no country can move forward in any aspect of life. Prof. Choudhary said that we plan to network scientists by focusing on linking neuroscientists, and creating virtual network of institutions working in the field of neuroscience.

This 2-day conference consists upon five sessions spanning over two days. Each session contains five to seven lectures from world renowned neuroscientists. Participants from more than 20 OIC member states are attending this conference online.

During the conference experts from Afghanistan, Iran, Pakistan, Albania, Malaysia, Turkey, Egypt, UAE, Oman, Indonesia, Saudi Arabia, and Turkey gave talks and discussed prevailing different neurological diseases care related issues and current status along with jotting down the way forward to mitigate the challenges currently being faced by OIC member states.



Workshop on Research Integrity in Clinical Trials

A 2-day International Workshop on “Research integrity in clinical trials – challenges and solutions in low and middle income countries” organized by UEARS in collaboration with COMSTECH, Assiut University, and Granada University in Cairo, Egypt. COMSTECH distinguished scholar Prof. Dr. Khalid Saeed Khan of Universidad de Granada, Spain was one of the conveners of the workshop.

The objective of the workshop was to help devise solutions for the challenges faced in clinical trials by low and middle income countries and to impart knowledge and training about research integrity. The value of clinical trials depends on the quality of information produced and the relevance of the data to address public health needs. There are many less-developed countries that do not have well-prepared medical infrastructure and little or no experience in conducting trials. To overcome these challenges this 2-day training and development workshop in the area of research integrity in clinical trials is organized.

The workshop spanned over two days consisting upon four sessions and 31 scientific lectures delivered by renowned experts in the field. Each day ended with general discussions. More than 40 clinicians, students and researchers from different countries attended this event.



Public Lecture on Microbial Biofilm Formation

COMSTECH organized a public Lecture on “Microbial Biofilm Formation and its Importance as a Drug Target” delivered by Prof. Dr. Ute Römling, Professor of Medical Microbial Physiology, Karolinska Institutet, Stockholm, Sweden.

Dr. Romling thanked the President of Pakistan and the Coordinator General COMSTECH for inviting her to Pakistan and said that I am very pleased to be here. She presented the work of her team on the biofilm formation and its importance as a drug target. She said that biofilms are matrix-enclosed bacterial populations adherent to each other and/or to surfaces or interfaces. She said that 60 to 80 percent of human bacterial infections are caused by biofilm forming bacteria. Dr. Romling mentioned that biofilms are tolerant against antibiotics and immune response. She talked in detail on the topic in her one-hour long lecture.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Chouhary introduced the speaker to the audience and said that I am very fascinated from the talent and the spirit of Prof. Dr. Ute Romling. She is a renowned scientist, COMSTECH distinguished scholar and also chairs a faculty at international center of chemical and biological sciences. Prof. Ute is very well known in the field of biomedical sciences particularly in the field of infectious diseases.

This was hybrid event. A number of researchers from Islamabad and Rawalpindi participated in-person at COMSTECH and many scientists and students from different OIC member states participated online.



Training Course on Health and Hospital Management

COMSTECH organized a two-day training course on health and hospital management at COMSTECH auditorium in Islamabad.

The representative of the World Health Organization in Pakistan, Dr. Palitha Gunarathna Mahipala was the chief guest of the session. He said health system management is important, we need to have a disciplined health sector management, curriculum and trained personnel to manage health sector. He suggested that health sector managers should manage in effective and efficient way by looking at the resources available.

Dr. Mahipala appreciated the response and management of COVID by the government of Pakistan and said it was unified, outstanding and unique and many countries can learn from that. He informed that coordination and governance, science and epidemiology and communication are the three pillars to respond any emergency effectively.

Dr. Mahipala said going to hospital is riskier than climbing the mount Everest. He mentioned that people go to hospital to get treatment of one disease and unfortunately come back home with another infection. He stressed that patient safety and equity is most important.

The keynote speaker of the session, Professor & Executive Director, Institute of Global Public Health, University of Manitoba, Canada, Dr. James Blanchard said that academic institutions are doing more in research and training but not necessarily thinking about the vital role of leadership in public health system. He said it is important to think about the importance and strengthening of health systems which

is going to be the critical aspect of the success and challenges for sustainable development goals (SDGs). He said to achieve SDGs health goals, access, quality and utilization of key health services are essential. Dr. James said that to achieve greater equity, clinical services need to be accessible to socially and economically marginalized. He informed that the planning of health systems and distribution of resources is critical. He concluded by mentioning that effective coverage of hospital-based clinical services is a key element of reaching SDGs, and organization and strengthening of hospital sector requires both health system planning and clinical quality improvement.

Vice Chancellor, Health Services Academy, Prof. Dr. Shahzad Ali Khan said that Polio, Dangu and COVID have shifted our focus towards public health which was not a priority for long time. These diseases created the demand of public health care which resulted in improvement in public health system in Pakistan, however, it still needs lot more to be done in this sector. He said that the public health sector managers need a diversified skill set.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary welcomed the participants. He said that this training course is extremely important to improve healthcare delivery in OIC member states. Prof. Choudhary said that OIC nations suffers with weak and fragile healthcare systems. He said the health care system in these countries suffers from improper management, inadequate funding, lack of policy, infrastructure and compromised quality, which needs an immense improvement. He suggested that health and nutrition have to be top priority on national development agenda, otherwise we would not be able to face the next pandemic and other health emergencies of future, he informed.



International Virtual Training on GIS and Satellite Remote Sensing

COMSTECH organized two weeks long comprehensive virtual training on Geographical Information System (GIS) and Satellite Remote Sensing: Application for Natural Hazards, Land Cover and Water Resources.

The training was organized in collaboration with International Islamic University in Uganda, National Centre of Excellence in Geology, University of Peshawar and Department of Forestry, Shaheed Benazir Bhutto University, Dir Upper.

The objective was to develop the participants' basic knowledge of space technology and GIS and to be able to acquire free resources of satellite data and open access software to further enhance the capacity and apply that in their field of interest.

Prof. Dr. Mohammad Shafiq from the National Center of Excellence in Geology, University of Peshawar said in his opening remarks that the space sciences and geographical information system are emerging technologies. The application of these technologies include monitoring, management of natural resources, urban and regional planning, governance, and defense. He said the application of space science is expanding tremendously. He said that the capacity of developing countries is not adequate to fully utilize the space technologies to contribute in the socio-economic development. He stressed the need of basic training

and capacity enhancement of young researchers so that they can fully utilize these technologies for the benefits of their countries.

Prof. Dr. Ismail, Rector Islamic University, Uganda said in his address that I am delighted to be the part of this event jointly being organized by IUIU and COMSTECH. He encouraged informal communication with open mindedness among the experts of different fields and said such communication lead to the practical projects and initiatives. He said that education is to know the skill and attitude and apply that in your daily life, and this is all about capacity building.

The Coordinator General COMSTECH said that this event is part of OIC Africa Program. Several programs under different thematic areas going to be held under the OIC Africa program for the capacity building of Africa with the emphasis on least developed countries. In the next phase in-person trainings would be conducted in different African member states of OIC.

The training comprised upon one-hour lecture and two-hours computer based practical training session on the data and software of space technology and their application, each day. The lectures and practical training was conducted by national and international experts working in the fields of GIS and remote sensing.

More than hundred students, researchers and scientists from around the OIC member states particularly from African region attended this training.



International Workshop and Exhibition on Research Commercialization

COMSTECH organized international workshop and exhibition on research commercialization: challenges and opportunities.

The Coordinator General COMSTECH welcomed the guests of the event. He said that the theme of this workshop is understanding the opportunities as well as the challenges that are present for the commercialization of research, which is of great significance for all our member states.

Prof. Choudhary said that we all are aware of the societal and economic potential of science and technology in our age. He said academic research has begun to take off in most states as evidenced by the rapid growth in science publications emanating from OIC member states. However, a common problem is how to convert academic research into new products. Prof. Choudhary said that the lack of clear road map, sustained state support, institutional framework, entrepreneurial thinking in faculty, infrastructure, interest of industrial sector and investors, and innovation rejecting mindset of the academic leadership are the major challenges being faced by the science commercialization. He suggested to take these challenges seriously, formulate right and sustained policies and establish consortia of business and academia that work together to achieve targets.

Prof. Zakri Abdul Hamid the Chairman of Atri Advisory and Science Advisor to the Campaign for Nature initiative in the ASEAN, from Malaysia appreciated the COMSTECH capacity building activities for OIC countries. He pointed out that the level of preparedness and infrastructure is the key reason of lacking behind. Prof. Zakri mentioned that science and technology is good, and research and development is great, but it must be relevant and must have impact and must contribute to the wellbeing of the society.

Prof. Dr. Orkun Hasekioğlu, the Vice President at TENMAK, the Energy, Nuclear and Mining Research Agency and advisor to the President of TUBITAK said some years ago we discussed the ways to realize the Astana STI Declaration and came out with some ideas, like commercializing science research and establishing development fund for COMSTECH countries, but could not realize those ideas because of

obstacles and suggested to learn lessons from the best practices and implement them to achieve results.

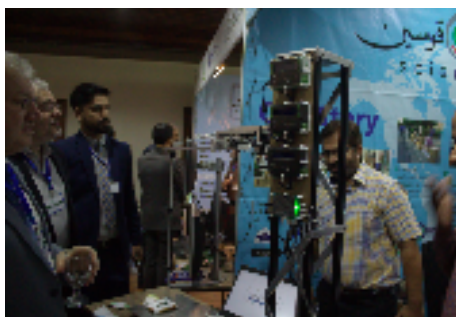
Prof. Dr. Mustafa Guzel, the Director of Discovery and Development Center at Istanbul Medipol University, and the Chair of Medical Pharmacology Department and International Faculty of Medicine, Turkey, said that it is hard to find funding for your research, and it is really hard to find support from investors who support your idea to conduct a research to develop an innovative product. He suggested to make teams to support each other to become self-sufficient. Prof. Guzel said we need to rethink our habit, speak with each other and break the ice.

Vice Chancellor, Pakistan Institute of Development Economics, Dr. Nadeem ul Haque delivered the keynote address. He said that bringing science to our countries needs attitude towards science. He said we need to have a holistic approach to collect knowledge. Dr. Haque said that science culture can bring science, that needs to be developed. He lamented that we want science without cultural change. He said that we have to learn to create ideas, just copying would not help. He suggested to create a vibrant culture of exchange, create networks of exchange and establish clubs where experts come and exchange ideas. Prof. Haque said when I see no consultations of governments with the universities, I feel like there is no demand of science in our cultures. He suggested we need to develop expert data analysts and make indigenous policies.

Chief Executive Officer of Ignite, Mr. Asim Shahryar Husain attended the inaugural session as the chief guest. He encouraged the development of indigenous capabilities in the field of information technology to create skilled freelancers. He informed that the 300 million US dollars have been earned by the Ignite trained freelancers.

Dr. Syed Khurshid Hasnain, Adviser Science COMSTECH, informed that more than 200 people participated in-person from Turkey, Malaysia, Burkina Faso, Cameroon, Nigeria and Pakistan while 300 people joined online from different OIC member states. He said that 22 international and national world renowned experts have delivered lectures in the workshop while fifteen companies have set up stalls to showcase their products in the exhibition.

Glimpses from the Exhibition



"Al-Farabi - Iqbal" International Forum

Almaty hosted the International "Al-Farabi - Iqbal" forum organized jointly by the International Turkic Academy, Al-Farabi Kazakh National University and the Ministerial Standing Committee on Scientific and Technological Cooperation of the Organization of Islamic Cooperation (COMSTECH).

The forum was opened by the speeches of the President of the International Turkic Academy, Coordinator General of COMSTECH, Chairman-Rector of Al-Farabi Kazakh National University, Deputy Minister of Education and Science along with representatives of international organizations.

The forum was held in offline and online formats, attended by scholars from the Turkic countries and the OIC member states, representatives of the intelligentsia, members of the diplomatic and parliamentary corps, experts.

Several books such as proceedings of the "Al-Farabi Global Forum" held in Islamabad in 2020, in English, Kazakh and Russian languages, Allama Muhammad Iqbal's book "Reconstruction of Islamic Thought", in Azerbaijani language, Al-Farabi's book "El-Farabi Kitabu'l Musika'l-Kebir" in Turkish language, and "Encyclopedia of Iqbal" in Urdu have been presented in the forum.

The forum conducted plenary sessions on "Iqbal's Philosophy: Past, Present, and Future", "The Global Impact of Iqbal's Philosophy and Poetry", and "The Challenges of the 21st Century and Technology".

The sessions were attended by prominent scientists and experts from Azerbaijan, Kazakhstan, Kyrgyzstan, Türkiye, Pakistan, Great Britain, Russia, Tajikistan and the OIC member states, and made presentations on research topics.

It should be noted that in 2020, COMSTECH organized a large-scale event dedicated to Al-Farabi in Islamabad. In accordance with the agreement made during that forum and in line with the instructions of the President of Kazakhstan, Kassym-Zhomart Tokayev on strengthening science and technology given at the VIII Summit of the Organization of Turkic States, the "Al-Farabi-Iqbal" forum has been organized.

This forum is the first large-scale event that raised the awareness of the contribution of Al-Farabi and Iqbal to global science and the intellectual and spiritual harmony.



Webinar on Wilson's Disease

COMSTECH organized online webinar on neurocase Wilson's disease trials: chemical, gene, and organ/cell treatments, delivered by Prof. Xiao-Ping Wang, Director, Department of Neurology, Shanghai TongRen Hospital, Shanghai Jiao-tong University Medical School, Shanghai.

The Patron-in-Chief of the International Center for Biological and Chemical Sciences, (ICCBS) University of Karachi, and former federal minister for science and technology, Pakistan, Prof. Dr. Atta-ur-Rahman introduced the speaker and said it is a real pleasure to introduce Prof. Xiao-Ping Wang and we are very fortunate to have him in Karachi at ICCBS. Prof. Atta said, Prof. Wang is a very distinguished scientist.

Prof. Wang said it is my pleasure and the topic of my talk is "Neurocase Wilson disease trials: chemical, gene, and organ/cell treatment". He talked about the history of Wilson's disease and the modern neurology. He shed light on the discovery of this disease and discussed the research work of different scientists on this disease. Prof. Wang also talked about Pakistan-China research exchange initiatives. He talked about the disease and said it can mostly be cured, early diagnosis and early treatment is very helpful in managing and treating this disease.

Coordinator General COMSTECH Prof. Dr. M. Iqbal Choudhary in his concluding comment appreciated the work, contribution to the science, and the presentation of Dr. Wang. He appreciated the work of Dr. Wang in the traditional medicine and expressed hope to work with him both in clinical trials and research.

Prof. Atta termed the presentation as an impressive overview of the work that has been done in this area and appreciated Dr. Wang's international linkages and said that it is very important facet of research today to

develop international linkages and nurture the ability to contribute and learn from various parts of the world. Prof. Atta said the science diplomacy is extremely important for nurturing peace and harmony and good will amongst nations.

The webinar was attended by more than 130 researchers from OIC member states.



Webinar on Energy Consumption by ICTs

COMSTECH organized an online webinar on energy consumption by information and communication technologies: facts and challenges. The webinar was delivered by Prof. Sami Erol Gelenbe, Turkish computer scientist, electronic engineer and applied mathematician currently serving Polish Academy of Science, Institute of Theoretical and Applied Informatics in Gliwice, Poland.

Prof. Sami mentioned that information and communication technologies impact the amount of energy that we consume in the world and impact the CO₂ or other emissions that are influencing global warming. He said having online meetings we save travel energy but at the same time we consume energy of electrical power in megawatts because we could not possibly operate online conversation if we don't have in the background, some very large data centers, and the millions of routers and fiber optics lines and copper connections for the digital interfaces.

Prof. Sami asked that why do we care about energy and ICT? He said that ICT has significant environmental impact both good and bad, including heat dissipation and of course energy consumption, production and transportation cost. So energy in ICT is a substantial part of the cost. He mentioned that the energy has a real impact on the profitability. And energy extraction of whatever kind we use has significant environmental impact.

Prof. Sami concluded that ICT systems are complex and highly interconnected. Although individual components are more energy efficient, however the complexity and the inter-connectivity makes them more energy consuming. He mentioned that the presence of ICT is growing and new applications such as crypto-currencies, blockchain and artificial intelligence are highly energy consuming. For instance, it is estimated that Bitcoin consumes as much electricity as a small country, the Netherlands. Prof. Sami suggested careful analysis, experimentation and active management to reduce energy consumption and environmental impact of the use of information and communication technologies.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said in his introductory remarks that today people from different continents are attending this first webinar of COMSTECH-MSTF webinar series. He

said that COMSTECH is an OIC ministerial standing committee on scientific and technological cooperation which represents 57 OIC member states and Mustafa(pbuh) Science and Technology Foundation (MSTF) is a Tehran based non-profit organization that honors scientists of the Islamic world with Mustafa Prize biennially, along with training future scientists worldwide.

Prof. Choudhary said that this is an important series of lectures which will be given by prominent scientists in the world both within the OIC system and outside. He said, today's speaker, Prof. Dr. Sami Erol Gelenbe is a very eminent scholar and hoped that this lecture will lay the foundation of collaboration.

Prof. Sami Erol Gelenbe is a Turkish computer scientist, electronic engineer and applied mathematician. He is a member of the Science Academy of Turkey, and holds the "Dennis Gabor" professorship in Electrical and Electronic Engineering at Imperial College, London. Prof. Gelenbe received Mustafa Prize in 2017 for his pioneering research on "Modeling and Performance Evaluation of Computer Systems". He is currently working as professor at Institute of Theoretical and Applied Informatics, Polish Academy of Science, Poland.



3-Day Workshop on Cancer Genetics

A 3-day online workshop on Cancer Genetics organized jointly by COMSTECH, International Center for Chemical and Biological Sciences (ICCBS), and Sindh Innovation Research and Education Network at Latif Ebrahim Jamal National Science Information Center (ICCBS) University of Karachi.

The workshop consists upon lectures by renowned expert Prof. Dr. Rafat Ali Siddiqui Senior Investigator at the Methodist Research Institute, and Professor of Cellular Biochemistry, Indiana University School of Medicine, USA. Each lecture followed by extensive exercises and discussion sessions.

Fundamentals of cancers, oncogenes, anti-oncogenes, epigenetics, miRNA and cancer genes regulation, and diet and cancer were the topic taught by Prof. Rafat during the workshop.

He said two major causes of death in the world are cardiovascular disease and cancer. He said the number one cause of cancer is tobacco, and mentioned that tobacco does not only cause the lung cancer but it also causes cancer of different other organs. He said the obesity is the second cause of cancer because lots of fat deposits in body serve as reservoir for inflammatory cells which leads to cancer. The pathogens are the third cause of cancer. Life style, diet, occupational exposure, alcohol, reproductive factors, and ultraviolet radiation are other causes of cancer.

Prof. Rafat said that the major causes of cancers like tobacco, obesity, life style, diet and occupational exposures are easily preventable just by paying attention to these risk factors. He said fifty percent of cancer can be reduced by just paying attention to the major risk factors.

Prof. Rafat said that the cell is the fundamental unit of life, and all cells are derived from the pre-existing cells. He said that normal cells retain the ability to divide and repair wounds, replace damaged cells, maintain normal developmental and physiological process and make the organism survival possible. Whereas cancer cells escape the normal regulation and start multiplying to make more copies. They are derived from the tissue where they are first discovered and belong to cell lineage that can be traced back to the fertilized eggs.

Students, experienced investigators, postdoctoral fellows, and faculty members from the OIC member states attending the session online.

3-day Online Workshop on Scientific Writing

COMSTECH, International Center for Chemical and Biological Sciences (ICCBS), and Sindh Innovation Research and Education Network (SIREN) jointly organized a 3-day online workshop on scientific writing at Latif Ebrahim Jamal National Science Information Center, University of Karachi.

The workshop consisted on lectures delivered by a renowned expert Prof. Dr. Rafat Ali Siddiqui, Senior Investigator at the Methodist Research Institute, and Professor of Cellular Biochemistry, Indiana University School of Medicine, USA. Each lecture followed by extensive exercises, tutorials, and discussion sessions.

Prof. Rafat started from defining scientific writing and answering the question of why one should write, and covered each and every topic of scientific writing in detail from taking notes in the lab to writing abstract and research paper. He taught how to tabulate data, make figures, insert pictures and write their captions as well. He also discussed writing styles and referencing methods in great detail. Prof. Rafat's lectures encompassed taking laboratory notes, presenting conference paper, writing research paper, thesis, research proposal, review article, book chapter, editorial and commentaries.

Students, experienced investigators, postdoctoral fellows, and faculty members from the OIC member states are participating in the workshop.



Virtual Innovation Lab on Metabolic Disorders in Neonatals

COMSTECH organized a virtual innovation lab on detection of metabolic disorders in new born babies. The lab was conducted by Prof. Dr. Farzad Kobarfad, Professor of medicinal and pharmaceutical chemistry at Shaheed Beheshti University of Medical Sciences, Tehran, Iran. The session included a comprehensive presentation followed by practical lab session of implementation of techniques discussed in the presentation.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary informed in his introductory lecture that today's session is beginning of a new series named "COMSTECH Innovation Laboratory". The concept of COMSTECH innovation laboratory includes a lecture of an expert on fundamental concept followed by practical implementation of the concepts in the laboratory. He said today's innovation lab is all about the use of the concept of mass spectrometry in detection of hundreds of metabolic disorders which are largely genetic disorders — inherited from parents.

Prof. Farzad gave a presentation on "principles and applications of mass spectrometry in neonatal metabolic disorders screening" and demonstrated the concepts discussed in his presentation in the laboratory.

Prof. Farzad discussed inborn errors of metabolism, biomarkers, types of mass analyzers, methods of Ion monitoring and application of mass spectrometry in metabolic disorders screening. He said that some babies are born with congenital metabolic disorders which could not be detected by the physical examination at the time of birth, and when these metabolic disorders are not detected and treated on time the baby would not be able to metabolize some of the elements from mother feed and would have different serious medical problems. He said that metabolic disorders are irreversible and cause very serious problems. He said that early detection of such disorders is crucial to treat and manage them effectively.

Prof. Farzad stressed the need of a proper system to diagnose these disorders on time. He said to treat these diseases it is important to diagnose them in first 10 days of birth of a baby. He suggested to screen all new born babies to diagnose and treat the metabolic disorders.

The innovative lab session was attended online by a number of scholars, students and scientists from a number of OIC states.



Webinar on Open Science

COMSTECH and UNESCO organized a webinar on open science. Prof. Dr. Shahbaz Khan, Director and UNESCO representative to China, Korea, Japan, and Mongolia, Prof. Dr. Zabta Khan Shinwari, Pakistan Academy of Sciences, Islamabad, and Prof. Dr. Claudia Bauzer Medeiros, Institute of Computing, University of Campinas, Brazil addressed the webinar by giving one-hour long talk each to more than 250 participants joined online from different OIC states.

Prof. Shahbaz Khan said that if we want to solve global challenges like COVID then we must share science, its products like vaccines and should be able to make solutions work together. He said we must nurture cooperation beyond boundaries. He said that unfortunately, there still exist scientific and digital divide in the world. Prof. Shahbaz mentioned that to achieve the sustainable development goals we need quality science. He said that open science is about creating opportunities for increased scientific collaboration, sharing of information and benefits.

Prof. Shinwari said that as the world is divided into haves and have nots, the same is the case with science. He stressed that we have to do a lot on the issue of inequality. He said that there is a need to address governance and sustainability issues to have open science. Prof. Shinwari stressed the need of a comprehensive policy of inclusiveness, funding, infrastructure, and incentives. He said that all scientists are responsible to the society and emphasized that the work of scientists must benefit the society.

Prof. Claudia said that we can do a lot to open science through sharing our data. She said science is a public good and a basic human right, outputs of publically financed research are a public good and must be made public as soon as possible, while respecting the principles of scientific ethics, privacy, security and protection of intellectual property. Prof. Claudia said the design, execution and results of a research project should be open under ethical and legal constraints.

Coordinator General COMSTECH, Prof. Dr. Iqbal Choudhary gave introductory talk and said that COMSTECH is striving to gather people from different countries by conducting such webinars to build scientific capacity. He said we are proud to have partnership with UNESCO. Prof. Choudhary said the cost of publication policy is really important factor. He said despite doing good quality science, if you don't have money you would not be able to publish it, and it is very unfortunate. This publication policy really needs a fresh thinking and open science can play an important role.

International Workshop on Artificial Intelligence

Sino-Pak Center for Artificial Intelligence (SPCAI) located at Pak-Austria Fachhochschule: Institute of Applied Sciences (PAF-IAST), and COMSTECH co-organized an International workshop on the role of Artificial Intelligence (AI) in healthcare, agriculture and energy sectors to showcase and debate emerging AI technologies and innovative practices at COMSTECH.

The workshop began with the keynote address by Prof. Dr. Atta-ur-Rehman, Former Chairman, Prime Minister's National Task Force on Science and Technology, Pakistan. Prof. Atta shared his views about the impact of AI on various walks of everyday life. He appreciated the remarkable increase of per capita international research publications in the country.

The inaugural session of the event was also addressed by the chief guest, Mr. Mohsin Mushtaq, Additional Secretary IT and Telecommunication, Dr. Atif Mashkooor, Managing Director SPCA, Dr. Mohammad Mujahid, Rector PAF-IAST and Prof. Dr. Syed Khurshid Hasanain, Advisor COMSTECH.

The workshop comprised on three technical sessions on healthcare, agriculture, and energy respectively. Each session was addressed by three field experts and followed by panel discussion. The workshop was attended by more than 300 participants in-person and many joined online.

SPCAI is a center of excellence in AI and has been empowering the innovation ecosystem. It has recently invested 65 million rupees in research and development in its Lab2Market project to build national capacity in the emerging field of artificial Intelligence.

COMSTECH is an OIC Ministerial Standing Committee on Scientific and Technological Cooperation headquartered in Islamabad and works for the socio-economic development of OIC member states.

International Training Course on Intellectual Property

COMSTECH in collaboration with Inter-Islamic Network of Science and Technology Parks in Iran inaugurated two-day International advanced training course on Intellectual property, at COMSTECH.

The inaugural session of the training was presided by the H. E. Mr. Seyed Mohammad Ali Hosseini, the Ambassador of Islamic Republic of Iran. He said the goal of COMSTECH is to help in promoting of bilateral and multilateral relations of Islamic countries in the development of science and technology and scientific capacity building, the important steps have been taken and there is a long way to go.

Mr. Hosseini said that Islamic world is full of talent and human capital which needs to be tapped for the development of Islamic world. He said that Islamic Republic of Iran always supports COMSTECH activities and hosts COMSTECH Networks in the fields of intellectual property and virtual universities of Islamic world.

Mr. Hosseini said that intellectual property rights preserve and protect the right to benefit from thought and creativity and transform it into economic value. He said maintaining the ownership and rights are particularly important for the development of regional trade. He suggested that the Islamic countries should consider it as one of the main prerequisites for the development of regional trade.

Mr. Hosseini said that Iran and Pakistan are two brotherly countries and have deep religious, cultural and historical ties and have been living together in peace and friendship for more than 7 decades.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said in his welcome speech that I feel proud to welcome the Chief Guest, H. E. Ambassador Hosseini.

He said this advanced course is jointly being organized by COMSTECH and Inter-Islamic Network on Science and Technology Park (INSTP), Iran.

He said INSTP is one the thirteen networks, established by COMSTECH General Assembly. I am pleased to report here that Islamic Republic of Iran hosts three of these networks which are contributing towards the science and technology development of the OIC region.

Prof. Choudhary said that Innovation in technology is

moving very fast and a credible intellectual property system is a powerful stimulus to such innovation. The protection of intellectual property rights (IPRs) greatly influences investment decisions, both in industrial sector as well in research and development. However, nations can only benefit from the innovation potential of their scientists and technologists if they have the competence and capacity to protect their IPRs both nationally and internationally to translate them into saleable products and services for socioeconomic development.

He said that IPRs is now the backbone of global trade and business and mentioned that in 2020, developing countries have paid 340 billion USD in royalties for the use of IP, and received 80 billion USD. A large portion of innovation of developing world is either wasted or pirated due to the lack of IPRs policies and practices. He said that nations and individuals build their capacity to protect their intellectual capitals and use them for socio economic development.

The Ambassadors of Yemen, Iraq and Sudan participated in the inaugural session along with the participants from Uzbekistan, Malaysia and Iran. Over 300 participants, including over 230 online participants from some 11 countries, are participating in this important event.



Webinar on Machine Learning for Sustainable Development

COMSTECH organized a webinar on “Machine Learning and Data Driven Policy Making for Sustainable Urban Development”. Dr. Zubair Khalid, Associate Professor of Electrical Engineering, Lahore University of Management Sciences delivered this webinar.

Dr. Zubair talked about the methods of use of technology, data and machine learning to design data-driven policy making for sustainable urban development. He said Pakistan is facing a grand challenge of runaway urbanization, and said we are trying to address this challenge by using data, technology, and machine learning.

Dr. Zubair informed that we are looking at urban sprawl, mobility, environment and health issues. He said that developing countries don't have planned urbanization, have mobility issues to address, and there is no adequate waste management systems and air pollution is causing health problems. Dr. Zubair said we are using technology and data to make evidence based decision making to address these problems.

He said our aim is to collect massive urban data by introducing openly accessible technology solutions for data collection, novel algorithms and software tool set for data analysis to make data-driven decision making and evidence based policy design possible.

Dr. Zubair Khalid is currently working as Associate Professor of Electrical Engineering, and also looking after Smart Data Systems & Applications Lab, at Lahore University of Management Sciences.



Awards Investiture Ceremony in Tehran

COMSTECH organized the awards investiture ceremony in collaboration with Mustafa (pbuh) Science and Technology Foundation (MSTF) to honor the award winners of COMSTECH Award 2021 from Islamic Republic of Iran. The ceremony was held at the Ministry of Science, Research and Technology (MSRT), Tehran.

The Acting Minister for International Cooperation, Dr. Vahid Haddadi Asl, the Vice Minister for Research, Prof. Dr. Peyman Salehi, and the Deputy Minister for Technology and Innovation, Prof. A. Kheroddin, of MSRT attended the ceremony. The CEO of MSTF, Mr. Mehdi Saffarinia, and the heads of three COMSTECH Networks hosted by Islamic Republic of Iran attended the ceremony. The representative of the Ambassador of Pakistan in Iran, Ms. Ambreen Gul Shahid, Press and Cultural Attache joined the event.

Two Iranian scientists, Prof. Ali A. Mosavi-Movahadi and Dr. Esmael Ghavanloo won the COMSTECH awards 2021 in the fields of Chemistry and Best Scientific Book respectively, were honored in the ceremony. The COMSTECH award comprises upon a shield of honor, certificate of award and cash prize.

A two-member delegation of COMSTECH comprising upon Senior Director HR and Administration, Syed Aftab Hussain Zaidi and the Executive Secretary, Mr. Mohammad Ameen Kalroo, participated in the ceremony.



Webinar on Allama Iqbal's Perspective on Science and Technology

COMSTECH organized a webinar on “Allama Iqbal's Perspective on Science and Technology” which was delivered by Senator Walid Iqbal, the grandson of Allama Dr. Muhammad Iqbal.

Mr. Walid said that a few are aware that Iqbal had a complete understanding of all contemporary disciplines and had deep understanding of the scientific developments and philosophical debates of the 20th century. He said that Iqbal was well versed with the science and the science of anatomy and the latest inventions in the fields of engineering and technology.

He said that Iqbal's poetry and philosophical thoughts are not only a combination of the impact of modern scientific developments but also contain impressive predictions on the basis of his study of modern science.

Mr. Walid said that in poetry, lectures and particularly the reconstruction of religious thought in Islam, Iqbal had benefitted from the modern scientific theories.

He said Iqbal was in firm belief that Muslim students should get involved in scientific education in order to meet the modern day challenges. He informed that Iqbal advocated the translation of scientific books into Urdu so that Muslim students can understand scientific concepts.

He mentioned that in 1932, Iqbal advised the father of Urdu Moulvi Abdul Haq, that he should understand the need of the hour and translate books of science into Urdu to help Muslims to extricate themselves from the world of fantasy and to step into the field of real knowledge.

He said that Iqbal was in the view that Muslims had failed to understand that it was the religion of Islam which has furnished to the world the basic perquisites of scientific study.

He mentioned many examples of the predictions of scientific discoveries Iqbal wrote about many years before their actual discovery.

Mr. Walid said that Iqbal remained obsessed, with the past glory of the Muslims and the sorts of attitude that they had towards science and learning, and what happened to the Muslims after the decline of Islamic civilization.

Mr. Walid Iqbal gave a very comprehensive talk on Iqbal's scientific, social, religious and philosophical thoughts by elaborating his verses and quoting several biographers of Iqbal.



Webinar on Genomic Characterization of Neuromuscular Disorders in Pakistan

COMSTECH, Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), Royan Institute, Mustafa (pbuh) Science and Technology Foundation and Sindh Innovation, Research, and Education Network jointly organized international webinar on “Genomic Characterization of Neuromuscular Disorders in Pakistan”.

This was the third webinar of the PCMD-Royan Institute webinar series. This webinar series is a joint venture of PCMD and Royan Institute, Iran. It is held physically in Pakistan and Iran and people around the world join these webinars online. COMSTECH, Mustafa (pbuh) Science and Technology Foundation and Sindh Innovation, Research, and Education Network provide support in the organization of these webinars.

Dr. Ishtiaq Ahmad Khan, Associate Professor at the Dr. Panjwani Center conducted this webinar. He talked about the genomic characterization of neuromuscular disorders in Pakistan. He said neurological disorders are heterogeneous group of disorders, they affect the peripheral and central nervous system. Dr. Ishtiaq talked about neuromuscular disorder and presented the current status of the prevalence of this disorder in Pakistan. He said Pakistan lies in the region which is under high burden of neuromuscular disorder and the basic reason is consanguineous marriages.

Dr. Ishtiaq mentioned that neurological conditions pose a great diagnostic challenge due to complex clinical presentation, phenotypic overlap, and rare disorders. He said that next generation sequencing and bioinformatics are very helpful in diagnosing neurological disorders.

Dr. Ishtiaq said that Jamil-ur-Rahman center for genomics research center at the ICCBS is first genomics facility of Pakistan. He said this center is providing training to researchers from all over Pakistan.

Dr. Ishtiaq Ahmad Khan is Associate Professor at the Dr. Panjwani Center. He is Ph.D. from the H. E. J. Research Institute of Chemistry, ICCBS, University of Karachi, and is post-doctorate from the Beijing Genomics Institute, Shenzhen China, and the Sanger Wellcome Institute, Cambridge.

His research group is working on microbial, viral, and human disease genomics. During the current pandemic, his group carried out genomic surveillance studies on SARS-CoV-2 and contributed to informed decision-making at the national level.



International Symposium on Post COVID Higher Education Challenges

COMSTECH, (COMSTECH Consortium of Excellence CCoE), IUCPSS, American Institute of Pakistan Studies, and The Hollings Centre for International Dialogue organized an International Symposium on Post COVID Higher Education Challenges and Way Forward at COMSTECH. Vice Chancellors/Rectors of Muslim Universities from Uganda, Nigeria, Kenya, Tanzania, Kazakhstan, and Pakistan participated in the symposium.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said in his welcome address that the topic of today's symposium is both relevant and important. He said that the COVID pandemic impacted the world very profoundly. He said that the pandemic has exposed the world that no one is out there to help to combat pandemic, one has to solely rely on one's own capabilities.

Prof. Choudhary said that science responded to the pandemic by deciphering the virus in just four months and providing vaccine in the shortest possible time to save lives. He informed that the next pandemic is being predicted in just four years-time, so we have to prepare for that in advance.

Prof. Choudhary said that the education has been given least importance. We are technologically illiterate and our competency in the use of technologies is not at par. He said that we have to adopt new normal by learning and using new technologies. He said the idea of this symposium is to discuss, debate and understand the challenges faced by the higher education and find appropriate ways to mitigate them.

Pro-Rector Superior University, Prof. Dr. Mohammad Nizamuddin said in his keynote address that we need to conduct study to find how higher education sector responded to the pandemic. He said that the quality of higher education delivery effected during the pandemic, because we were not prepared. He said in

one aspect the higher education sector was benefited by the COVID pandemic and that was the initiation of hybrid system of education delivery and adoption of the technologies. Prof. Nizamuddin recommended to strive for technological advancement, building community centers and making access to higher education easy for everyone. He appreciated the online education system and recommended to adopt the online education system.

The chief guest of the concluding session of the symposium was the chairman standing committee on foreign affairs, senator Mushahid Hussain Sayed. He said like other parts of the world, COVID-19 has severely affected higher education sector in South Asia, highly populated and unique geographical region of the world, which accounts for 25% of the world population having the highest proportion of youth under the age of 18 years.

Mr. Sayed said, in Pakistan, about 47 million students have been affected including 2 million students enrolled in more than 230 universities and more than 120 sub campuses. He said that the universities across the region had to face multiple challenges during and post COVID period.

He said that a dire need is being felt to bring higher education leadership/vice chancellors across the globe on one platform not only to deliberate on post COVID higher education challenges but also suggest solutions through learning from best regional and global practices in key fields of online teaching, assessment, mental health issues and required new skills & educational pathways for students.

He appreciated the organization of this symposium as the objectives of this symposium are the need of the hour to achieve them as early as possible.

National Coordinator IUCPSS, Mr. Murtaza Noor said that the purpose of today's symposium is to bring all stakeholder close together to discuss and find solutions to the challenges being faced by higher education section after COVID.



COMSTECH Kazakhstan Alumni Forum

A meeting of graduates of Kazakhstani universities was held at the headquarters of COMSTECH (the Ministerial Standing Committee on Scientific and Technological Cooperation of the Organization of Islamic Cooperation) chaired by Prof. Dr. Muhammad Iqbal Choudhary, Coordinator General COMSTECH.

The conference was attended by the representatives of the diplomats, Pakistan Higher Education Commission, journalists, as well as expert circles.

During the event the participants discussed the prospects for the development of cooperation between Kazakhstan and Pakistan in the field of education and science. A unanimous opinion was expressed about the existing potential for training Pakistani youth in Kazakhstani universities.

The graduates shared their warm memories, emphasizing the quality level of education, material and technical equipment of educational institutions. The hospitality and friendliness of Kazakhstan people, the commonality of cultures and traditions of both countries were also noted.

Besides, the guests of the event also raised problematic issues that require special attention from the Embassy of the Republic of Kazakhstan in Pakistan.

The Minister of Science and Higher Education of the Republic of Kazakhstan Sayasat Nurbek made a special video greeting. The Minister proposed to organize the next meeting of graduates in Astana.

In his welcome speech, Prof. Dr. Choudhary expressed the interest in developing cooperation in the field of education, science and technology between the fraternal countries. He declared his team's readiness to make a direct contribution to cooperation.

For his part, the Ambassador of the Republic of Kazakhstan Kistafin emphasized the importance of strengthening bilateral cooperation in the field of

education. He noted that during the meetings of President K. Tokayev with the Prime Minister of Pakistan Shahbaz Sharif, the Head of State invited Pakistani youth to study at Kazakhstani universities.

As a result, a decision to form "Kazakhstan is my second homeland" Graduate Association and appoint Prof. Choudhary as a President was made.

The members of the Association agreed to hold the next event in February 2023, during which they are going to approve the action plan and determine the main activity directions.

The Embassy of Kazakhstan expresses its gratitude to Prof. Choudhary and his team, as well as Prof. Atiatul-Wahab for organizing a high level event.



V Nobel Fest in Astana

Inclusive Development Foundation (IDF) in partnership with COMSTECH among others organized V Nobel Fest in Astana during 26-28 October, 2022 in hybrid format. IDF is an independent non-profit organization that aimed to foster open dialogue on inclusive policies related to the most pressing public issues.

Nobel Fest is a unique online platform for discussing and sharing innovative ideas with Nobel prize laureates, distinguished scientists and experts. The main mission of the Nobel Fest is to make world education and science accessible in every corner of the world.

This year's Nobel Fest held in Astana, Kazakhstan, students and young scientists from all parts of the world have been granted an unlimited access to the platform, and allowed to connect and communicate with Nobel Prize laureates and distinguished scientists.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary addressed the Nobel Fest and said that on behalf of the OIC Ministerial Standing Committee (COMSTECH), I express my greetings to the organizers of V Nobel Fest for putting together another excellent festival of knowledge for future leaders. He extended gratitude to the organizers for extending invitation to COMSTECH as the co-organizer of the VI Nobel Fest, to be held in early 2023 in Islamabad.

Prof. Choudhary said that we live in a world which is defined by knowledge and its application. He quoted Pakistani Nobel Laureate Prof. Abdus Salam who said “developing countries differ from developed countries not only because they have less wealth and capital but because they have less knowledge”. Prof. Choudhary appreciated the focus of V Nobel Fest on education and knowledge and said that it is timely and important. He stressed that we need to act and act promptly at all levels.

Prof. Choudhary said the major challenges which Muslim world face in the field of education are: low access to education as among the 780 million illiterate people, half live in OIC region; female literacy is well below the world average; exclusion of children of minorities and children with disabilities; armed conflicts leading to large scale migration; and lack of investment in schools, trained teachers, and educational material.

Prof. Choudhary said that we must work on war footing to ensure every child must get the basic right to education. He said I am pleased to report here that as per vision of the former President of Kazakhstan, we are in the process of developing an institutional mechanism for inter Islamic cooperation, called OIC-15, comprise of 15 most developed OIC member states.

COMSTECH Nobel Fest Lecture Series

COMSTECH organized a lecture series as part of “Nobel Fest Lecture Series”. In the second session of this series three talks have been delivered. The sessions was attended by participants online from different OIC member states and in-person at COMSTECH.

The Chairman & CEO, Interactive Group of Companies, Dr. Shahid Mahmud talked on the topic of “building an educated nation”. He said that the education means “Preparing a person to face everyday life.” He talked about COVID and said that it had changed our lives for years to come. To meet the challenges of the future he quoted Albert Einstein “We shall require a substantially new manner of thinking if mankind is to survive.” Dr. Shahid said that the goal should be to connect youth, policy makers, academia, think tanks, ideas and insights, bring transparency in data and process, and solve complicated national and global problems.

He suggested that the improvement of our understanding of ourselves and each other, creating cultures of harmony and civilizations of peace, adopting technologies of greater good can be the best way forward.

The talk title of the Chairman, National Center of Artificial Intelligence, and Central Project Director, Prof. Dr. Yasar Ayaz was “artificial intelligence on leading edge”. He said that artificial intelligence is a method by which computers become able to perform tasks which normally require human intelligence, such as visual perception, speech recognition, decision-making and translation of languages. He talked about the significance, future trends, application and expected revenue generation from the application of AI.

Director Research, National University of Sciences and Technology, Dr. Hamood Ur Rahman talked on the topic of “strategic policy framework - research leading to commercialization”. He talked about the excellence achieved by NUST and discussed and addressed the question of how research leads to commercialization.

Seminar on Women's Health

COMSTECH organized a seminar on current trends in virology and epidemiology in the context of women's health at COMSTECH.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary welcomed the participants. He said that this multidisciplinary international event is focused on Human Papilloma Virus (HPV) infection and associated cancers in women. He informed that this program is designed to not only deliver an inventory of recent scientific research, but also to provide awareness and sensitization in health care workers, opinion makers, and general public. Prof. Choudhary said that the objective is to help all stakeholders to be better prepared to fight against the diseases related to HPV.

Prof. Choudhary mentioned that according to a recent article in prestigious science general Lancet Oncology, Pakistan is becoming the hotspot of HPV which is still overlooked as a major risk factor for cervical cancer in over 86 million women 15 years and older. Actual prevalence of HPV infections and related morbidity and mortality remain to be investigated in systematic manner. He said only a few epidemiological and molecular studies have been conducted on this topic. He said that among the general public, HPV is perhaps is the most underrated viral disease in OIC region. This event is meant to highlight knowledge and public awareness deficits about HPV.

Country Director, Jhpiego, Johns Hopkins University Affiliate, Dr. Fozia Assad said that HPV causes

cervical cancer and other cancers which is one of the top four causes of cancer deaths in women. She mentioned that over 600,000 cases of cervical cancer worldwide each year, caused by HPV. Dr. Fozia said we have effective HPV vaccine for over three decades which stops the spread of HPV infection and 90% drop in cervical cancer. She said that girls can be saved by vaccinating them before the age of 17. She said the elimination of this scourge of women's health is truly possible.

Director, Institute for Medical Virology and Epidemiology of Viral Diseases, University of Tubingen, Germany, Prof. Dr. Thomas Iftner said in his inaugural remarks that we need to tackle cancers at very early stages. Dr. Iftner said there are different forms of cancers and we have chance to prevent cancer by using vaccines available to save lives.

Professor of Medicine, Aga Khan University of Health Sciences, Dr. Waseem Jafry, said that if these health issues are not handled today will have catastrophic impact in future. He said viral diseases are global problems. Dr. Jafry suggested that the ministry of health should be sensitize to tackle the emerging health issues.

Six lectures were delivered on different aspects of the topic by national and international experts along with the panel discussions. More than 150 participants jointed this seminar in-person and online.



Seminar on Food Insecurity in the Science Summit of 77th Session of UNGA

COMSTECH Forum on Environment and Ecosystem Restoration (CFEER) organized an international virtual seminar on “solutions to combat food insecurity and malnutrition in the Sahel”. The Seminar was hosted by COMSTECH Forum on Environment and Ecosystem Restoration (CFEER) in cooperation with the Sahel Coalition based in Brussels (Belgium), Permanent Interstate Committee for Drought Control (CILSS) based in Ouagadougou (Burkina Faso), Regional Climate Centre for West Africa and Sahel - AGRHYMET based in Niamey (Niger) and Islamic Organization for Food Security (IOFS), based in Nur Sultan City, Kazakhstan. The event was held during the United Nations General Assembly Science Summit on September 26, 2022.

COMSTECH Advisor (Climate Change), Ambassador Shahid Kamal welcomed the participants of the seminar. He said that food security is in great interest of global community. Ambassador Kamal said that the degraded soils can no longer produce enough food.

Brussels based High Representative of the Sahel Coalition, Dr. Djime Adoum addressed the session and suggested the nations to increase investment and regional cooperation for equitable land distribution and food security.

Policy officer of European Commission for Science, Technology and Innovation Cooperation with Africa and ASEAN countries, Dr. Vincenzo Lorusso gave a comprehensive presentation in the session on AU-EU R&I partnership on food and nutrition security and sustainable agriculture & the AU-EU innovation agenda.

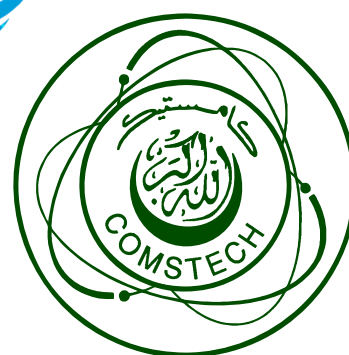
COMSTECH Forum seminar has highlighted the critical food security crisis in West Africa. The event coincided with the global food security summit held last week at the United Nations which was organized jointly by African Union, European Union and United States during the UN General Assembly Session in New York.

COMSTECH has signed a memorandum of cooperation with CILSS permanent interstate committee for drought control in the Sahel based in Burkina Faso. This agreement has linked COMSTECH with its two specialized institutes – regional center in Niger and Sahel institute in Mali. Two OIC institutions

– Islamic Organization for Food Security (IOFS), Kazakhstan, and Islamic World Educational, Scientific and Cultural Organization (ICESCO) based in Morocco are partners in this endeavor.

Ten experts, each from Benin, Burkina Faso, Chad, China, Gambia, Ghana, Mali, Niger, Pakistan and United Kingdom participated in the technical session of the seminar and gave 12 minutes long presentations on the topics addressing different dimensions of food security and malnutrition in the Sahel. Session was moderated by Dr. Irfan Aziz, Associate Professor, University of Karachi, Pakistan. 164 people from around the world registered themselves to attend this seminar.

The objective of the seminar was to focus on sustainable solutions to combat food insecurity and malnutrition in the Sahel. Major challenges of food security such as sustainable use of energy resources, using climate smart strategies, aspects related to agricultural productivity and energy-smart food chains and climate-smart agriculture that may help in ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture in the Sahel region were discussed for concerted efforts to establish sustainable food systems.



Youth Forum on Biotechnology

Those who are ahead in OIC states come forward and provide leadership for changing attitude towards the adaptation of new technologies to achieve success in all spheres of life, said the President of Pakistan, Dr. Arif Alvi while addressing the inaugural session of “Youth Forum on Biotechnology” organized by COMSTECH in collaboration with Islamic Cooperation Youth Forum, Turkiye and Islamic Organization for Food Security, Kazakhstan.

Dr. Alvi said that biotechnology is a landmark development, without this technology the green revolution could not have been possible. He said we need to develop intellect and evolve new ideas. He said that the scientific instruments guide the humanity to find the truth.

The President mentioned that new technologies like gene therapy and CRISPR techniques help the humanity to make tailor made specific changes in the genome to develop new traits of any living being.

The President mentioned many examples from the past like human body dissection and the printing press innovation and said we adopted these technologies many centuries late which is the reason of our lacking behind from the advanced world.

Dr. Alvi urged the young scientists to work hard and come up with novel and innovative ethical and moral solutions for the humanity and quick adoption of the new technologies for the rapid growth of the developing world. He asked COMSTECH to take the lead in the prompt adaptation of emerging technologies in OIC region.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary welcomed the participants of the forum. He said that this forum is significant to address the challenge of food security. He urged the need of the introduction and use of new technologies and better management to tackle the issue of food security faced by OIC states. He said that agricultural biotechnology will help in producing enough food to feed the hunger.

Director IOFS, Dr. Ismail Abdel Hamid said that the biotechnology is critical for the human development and achieving food security. He said that this forum will help us to explore new avenues, generate novel ideas and methodologies to understand the biotechnology and its use to address the issue of food security. Dr. Hamid presented a brief review of IOFS program and projects.

CEO of Young Business Hub, Islamic Cooperation Youth Forum, Mr. Sami Serdar, expressed solidarity, condolences and prayers for the recent flood victims in Pakistan. He said today we are here for youth that want a big change for the better future. He said technologies are playing an important role for the betterment of human life and biotechnology is playing important role in our daily life to address the global issues. Mr. Serdar suggested a united effort with solid continued commitment.

The inaugural session was attended by the Ambassadors/Diplomats of Azerbaijan, Kazakhstan, Kyrgyzstan, Palestine, Somalia, Qatar, Iraq, and Uzbekistan. This three-day forum is being attended by more than 170 national and international in-person participants, whereas many people are attending this forum from 35 OIC member states online. More than 30 local and international scholars will give lectures during this forum.



Training on Managing Science and Technology Parks

COMSTECH in collaboration with the Pardis Technology Park, Iran and ICCBS Technology Park and Technology Incubation Center, Pakistan organized an international training workshop on managing science and technology parks at COMSTECH.

The inaugural session of this two-day workshop was addressed by Director General for International Affairs & Public Relations of Pardis Technology Park, Mr. Amin Reza Khaleghian. He stressed the need of the establishment and optimum management of science and technology parks in OIC member states. He talked about the programs and activities of the Pardis Technology Park.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary welcomed the participants and said that the science and technology parks are part, and parcel, of knowledge economy ecosystem. He said STPs play a central role in fostering linkages between the academic institutions and industries. Prof. Choudhary said that science and technology parks are indeed time tested institutions since 1951 and contributed in economic development of many countries, including USA, UK, China, France, and Germany.

He said that the OIC countries are increasingly realizing the importance of science and technology

parks, and we see many success stories in countries like Turkey, Iran, Malaysia, Egypt, and now in Qatar, Saudi Arabia, UAE, Pakistan, and several central Asian member states.

Prof. Choudhary informed that a large majority of OIC member states, especially in Africa, are still lagging behind in this process of harnessing the innovative potential of their youth though such initiatives. COMSTECH, with partner institutions, has launched major initiatives to help in strengthening of S&T parks, including establishment of Inter-Islamic Network on Science and Technology Parks, based in Iran.

The Pro-Rector for Research, Innovation & Commercialization, NUST addressed the session and highlighted the importance of the science and technology parks and their role in the socio-economic development of economies.



Fellows Complete Training in Pakistan

Two Indonesian fellows from Airlangga University, Surabaya, Indonesia, Ms. Rizkiyah Dewi and Ms. Yuli Handayani completed 6 weeks COMSTECH-CCoE Technicians Training Fellowship from School of Chemical and Materials Engineering, National University

of Science and Technology (NUST), Islamabad.

The certificate award ceremony was held at COMSTECH. Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary extended gratitude to NUST for kind participation in the CCoE and generous offer of fellowships to the scholars from OIC member states. Pro-Rector, RIC, NUST, Dr. Rizwan Riaz, graced the occasion with his team.



Fellows Complete Training in Indonesia

The closing ceremony of COMSTECH fellowship for Research and Advanced Training in Virology and Vaccine Technologies held in Surabaya, Indonesia.

Ms. Faiza Nadeem, PhD Student at International Centre for Chemical and Biological Sciences, Karachi, Ms. Faiza Marrium, Officer In-charge, Tetanus Toxoid Production Lab, National Institute of Health, Islamabad, Dr. Mohsein Cheema, Lecturer, University

closing ceremony of very impactful program happening under joint efforts of COMSTECH & Ministry of Health, Indonesia, BioFarma and Universitas Airlangga. He hoped that returning research fellows are going back to their countries with polished technical skills and game changing mind sets in their fields.

Ambassador Mussinov said that this program does not only develop technical capacities but also promotes science diplomacy which eliminates cultural, sectoral, and knowledge barriers.



of Lahore, Lahore and Prof. Dr. Mahmoud Mohamed Tawfik, Associate Professor, Al-Azhar University, Cairo completed their fellowships at Universitas Airlangga in Surabaya, Indonesia with the cooperation of Ministry of Health, Indonesia, BioFarma and Universitas Airlangga.

Assistant Secretary General for Science and Technology of OIC H.E. Mr. Askar Mussinov said that I am very happy to talk to you on the occasion of

Coordinator General COMSTECH, Prof. Choudhary thanked the Ministry of Health, Indonesia for generous support towards this program. He said that this program is a systematic and focused programme for capacity building of young scientists.

Grand National Dialogue on 'Improving Healthcare in Pakistan: Challenges and Opportunities

COMSTECH in collaboration with Health Services Academy (HSA), Islamabad Policy Research Institute (IPRI), Office of Research, Innovation and Commercialization (ORIC), and Ministry of Science and Technology, organized a Grand National Dialogue on 'Improving Healthcare in Pakistan: Challenges and Opportunities' on November 22, 2022.

As we know that the route to better patient care and effectiveness is to improve the healthcare system. Healthcare organizations may achieve their goal by offering the improved outcome by focusing on the objectives and also by looking forward the information strategies. Pakistan experienced some of the most severe healthcare issues during the start of this decade. The access to the primary and preventative healthcare measures which are very essential for the women and children are lacking in Pakistan. To work on healthcare challenges, COMSTECH conducted a Grand National Health Dialogue to establish a purposeful policy for the healthcare system of Pakistan.

Dr. Shahzad Ali Khan Vice Chancellor of HSA welcomed the participants and dignitaries. He said that through COMSTECH we are developing linkages with the Islamic world. He informed that we have recently launched a Yemen program in collaboration with COMSTECH, and also supporting the health training in Iran, Afghanistan and African Countries.

Dr. Shahzad addressed that in order to develop, every country needs economic, infrastructure and social development. In Pakistan most of the focus is on economic and infrastructure development. He said that just focusing on economic and infrastructure

development, we cannot achieve the status of developed country. There was not much done to the social development. He said that social development happens by providing education and healthcare. He hoped that this dialogue will come up with a policy paper and media brief.

Dr. Raza President, Islamabad Policy Research Institute (IPRI) said that Pakistan is a country which is struggling since long with democracy and development. He said that youth is our asset and this is up to government that how they will utilize that asset.

Palitha Mahipala (WHO Representative Pakistan) said that I am absolutely honored and extra-ordinary privileged to be a part of this great forum. He indicated that Pakistan has so much potential and capacity to move forward. If we have healthier population they work hard that leads to economic population and if we are more economically developed then we get more resources to develop health.

Dr. Abdur Rashid Consultant (Health Initiatives) COMSTECH said that according to the WHO, a health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health and well-being. The fundamental purpose of healthcare is to optimize quality of life by enhancing health. He mentioned that numerous flaws exist in Pakistan's health system, such as poor governance, restricted access to resources, unequal distribution of resources, a poor health information management system, corruption in the healthcare industry and a dearth of skilled workers. He suggested that population growth control, increase in literacy rate, increase in health budget up to 8% of GDP, control of corruption in public health projects, provincial coordination and corporation of healthcare services, promoting health education, having proper check on quackery, exchange of human resource and rational use of drugs can improve the healthcare system in Pakistan.



1st Senior Officials Meeting of the OIC-15 Dialogue Platform

COMSTECH, the Government of Kazakhstan and the OIC General Secretariat jointly organized the 1st Senior Officials Meeting of the OIC-15 Dialogue Platform during 1-2 December, 2022, hosted by COMSTECH at its Secretariat in Islamabad.

The Senior Officials meeting was attended physically by Kazakhstan, Pakistan, Qatar, Iran, Malaysia and Indonesia, Morocco and Nigeria, while Saudi Arabia, Turkiye, Azerbaijan, Cameroon, Jordan and Egypt participated online. The meeting was also attended by the Assistant Secretary General (S&T) of the OIC and Kazakhstan's Permanent Representative to the OIC.

The senior officials meeting endorsed the objectives, the terms of reference, and the draft working procedures of the OIC-15 Platform. It also endorsed the draft agenda for the 1st ministerial meeting of the OIC 15 ministers at Astana, Republic of Kazakhstan during the first half of 2023.

The OIC-15 Dialogue Platform was conceived by the Republic of Kazakhstan in 2017 as a forum where the representatives of member countries leading in science, technology and innovation may deliberate upon the major scientific and technological challenges being faced by the OIC member states and suggest practical measures and strategies to overcome these challenges.

The idea of the platform was endorsed at the 46th and 47th sessions of the OIC Council of Foreign Ministers (CFM) held in 2019 and 2020, respectively. A Brainstorming meeting of various OIC institutions was held in 2019 in Almaty, Kazakhstan, that defined the objectives, structure and working of the OIC-15 platform.

Finally, the Abu Dhabi Declaration, as the outcome of the 2nd OIC Summit on Science and Technology (16th June 2021), supported inter alia the Government of Kazakhstan's proposal to hold the first meeting of the OIC-15 group in 2022, and entrusted OIC-GS and COMSTECH to prepare for it. In compliance, COMSTECH, the OIC-GS, and the Government of Kazakhstan have identified the leading countries for the first 4-year term, based on their scores in the six STI parameters identified in the brainstorming meeting. These leading member states have been invited to the 1st meeting of the OIC-15 Dialog Platform to chart the way forward for achieving the objectives of this forum and to provide concrete proposals for making progress towards the goals of the STI Agenda-2026 and the Abu Dhabi Declaration of the 2nd OIC STI Summit.



International Symposium on Digital Technologies for the Future World

COMSTECH international symposium entitled “Digital Technologies for the Future World” aimed to provide a platform for participants to learn from global future digital technology trends, scientific breakthroughs in the cutting-edge fields of digital world and apply the knowledge in their respective fields. The symposium included speakers from: Northern Ireland, UK, Azerbaijan, China, Malaysia, UAE, Denmark and Pakistan.

The international symposium covered diversified topics related to the contemporary global trends in world of information technology, including smart applications, embedded technologies, bio-inspired computing, security and privacy, knowledge economy, digital learning and entrepreneurship, smart cities, industry 4.0, cognitive cybernetics, quantum computing, big data and data analytics, augmented reality, and AI infused automation, and crisis management intelligent systems.

Prof. Dr. Atta-ur-Rehman FRS, Dr. M. Sadiq Ali Khan, Associate Professor, University of Karachi, Prof. Dr. Bhawany Shankar Chowdhary, Chair IEEE Educational Activities, Karachi Section, Prof. Dr. Shoab Ahmed Khan, Chancellor Sir Syed CASE Institute of Technology, Prof. Dr. Muhammad Mukhtar, Vice-Chancellor National Skills University, Karachi, and Dr. Shahid Mahmood, CEO Interactive Group also spoke in the inaugural session and mentioned the importance of digital technologies and the challenges for the future world.



International Symposium on the Role of Basic Sciences for Sustainable Development

Basic sciences have an important contribution and provide the essential means to meet crucial challenges such as universal access to food, energy, health coverage and communication technologies. They enable us to understand the impact of the currently nearly 8 billion people on the planet and to act to limit, and sometimes even to reduce depletion of the ozone layer, natural resources, climate change, extinction of living species.

Applications of technology are easy to recognize. On the other hand, contributions of basic sciences are not well appreciated. They are nonetheless at the basis of major technological advances that stimulate innovation, as well as essential for training future professionals and for developing capacity of populations who can take part in decisions that affect their future.

UNESCO had also declared the year 2022 for the “Year of Basic Sciences for Sustainable Development”. Realizing the importance of basic sciences, COMSTECH in collaboration with Brock University, Canada organized a one-day symposium at COMSTECH Secretariat, Islamabad.

The speakers at the symposium included Prof. Ejaz Ahmed who is Professor and Dean of the Faculty of Mathematics and Science at Brock University Canada. Prof. Georgii I. Nikonov, Professor at the Department of Chemistry, Brock University Canada. Prof. Ping Liang, Professor at the Department of Biological Sciences, Brock University Canada and Prof. Kirill Samokhin, Professor at the Department of Physics, Brock University Canada.



International Seminar on Improving Stroke Care in Low and Middle Income Countries

COMSTECH-ICCBS International Seminar on 'Improving Stroke Care in Low and Middle-Income Countries' was held at the LEJ National Science Information Centre, International Centre for Chemical and Biological Sciences (ICCBS), University of Karachi, on January 24, 2022. The seminar was jointly organized by COMSTECH and ICCBS - University of Karachi.

Prof. Dr. M. Iqbal Choudhary, Director International Centre for Chemical and Biological Sciences, and Coordinator General COMSTECH, Dr. Mohammad Wasay, Professor at the Aga Khan's Section of Neurology, Department of Medicine, Iranian scholar Dr. Mehdi Farhoudi, Dr. Ashfaq Shuaib, Professor at the University of Alberta, Canada, and Dr. Maria Khan from Rashid Hospital, Dubai, were the speakers at the seminar.

Talking about COMSTECH, Prof. Iqbal Choudhary said that the core mandate of COMSTECH is to strengthen cooperation among the OIC member states in science and technology (S&T). It aims to draw up programs and initiatives to develop the capabilities of the least-developed Muslim countries S&T through inter-Islamic cooperation, he said.

Prof. Mohammad Wasay said, "Increased stroke incidents are largely associated with aging and urbanization and propelled by the increasing prevalence of key risk factors, especially in Low and Middle Income Countries (LMICs), including, inactivity, obesity, dietary factors, diabetes, smoking, hyperlipidemia, and hypertension. He said that screening for stroke risk factors provided an excellent opportunity to identify and educate those at high risk.

Dr. Mehdi Farhoudi said that the situation pertaining to the burden of stroke was worse in LMICs than High-Income Countries (HICs).

Dr. Ashfaq Shuaib emphasized the need for coordination of care and development of stroke units and rehabilitation programs in the public sector and said that the establishment of stroke units should be a national priority. The promotion of healthy dietary habits, physical activities, and provision of access to clean air are some suggestions for reducing the burden of stroke in LMICs, he said.

Dr. Maria Khan, in her presentation on "Stroke in Women", said that worldwide, stroke incidents, prevalence and mortality were higher in men than women in developing countries, except in the Middle East and North Africa, where women have higher stroke mortality.

In the end, a panel discussion was held, in which Dr. Abdul Malik, Liaquat University of Medicine and Dentistry, Dr. Fowzia Siddiqi, Aga Khan University, Dr. Ossama Yassin, Egypt, Dr. Mehdi Farhoudi, and Dr. Husnain Hashim, Fouji Foundation hospital, participated.



Training Course on Halal Products Standards and Testing

COMSTECH and The Standards and Metrology Institute for Islamic Countries (SMIIC) in collaboration with Islamic University in Uganda jointly organized a training course on “OIC/SMIIC Halal Products Standards and Testing” at Islamic University in Uganda, Kampala during August 22 – 26, 2022.

The authentication and confirmation of several products, including processed food and other items of daily use, and their Halal nature is a growing challenge globally along with the environmental contaminants, both biological and chemical, and non-halal ingredients which are prohibited for Muslims, are a matter of concern. It is therefore, imperative for the Muslim countries to establish Halal testing standards and laboratories to ensure the 'Halal' status of the consumer products. In this context, the training course was designed to train the participants from African OIC member states about the procedures for adoption, implementation and use of the OIC/SMIIC Halal Food Standards general requirements for Halal food, auditing of testing Labs in line with OIC/SMIIC

The objective of this training course was to encourage the harmonization of Halal standards used in the OIC countries and internationally by aiding in the adoption and use of the OIC/SMIIC Halal standards.

Furthermore, the aim of the training was to transfer knowledge and skills, and to develop the human capital, while bridging the knowledge gap and enlightening the compliance requirements set forth by the regulatory bodies in the OIC Countries.

The training was attended by the participants both in-person and online. The Rector, Islamic University in Uganda, Prof. Ismail Simbwa Gyagenda, welcomed the participants and the experts. The Secretary General, SMIIC, Mr. İhsan ÖVÜT, and the Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary addressed the inaugural session of the training. Both the dignitaries presented the report of their organizations – SMIIC and COMSTECH – and highlighted the recent programs launched to meet their mandate. Prof. Choudhary appreciated the efforts of the Rector of Islamic University in Uganda and his team for organizing the training for the capacity building of African member states.



Visits & Meetings



Thirty-First Executive Committee Meeting of COMSTECH

The Thirty-First Executive Committee meeting of COMSTECH was held in a hybrid format on September 28, 2022 at the President's Secretariat, Islamabad. The meeting was chaired by H.E. Dr. Arif Alvi, President of Islamic Republic of Pakistan in his capacity as the Chairman of COMSTECH. The Meeting was also attended by His Excellency the Secretary General OIC and six Ministers from the OIC member states.

The meeting started with the recitation from the Holy Quran, followed by the opening remarks by H.E. Dr. Arif Alvi, President of Pakistan/Chairman COMSTECH. He welcomed the participants and said that COMSTECH is leading the S&T Agenda of the OIC in the member states. He highlighted the importance of promoting science, technology, and innovation for the progress and prosperity of the Muslim world.

H.E. Prof. Dr. M. Iqbal Choudhary, Coordinator General COMSTECH welcomed the participants and expressed his gratitude to H.E. Mr. Hissein Brahim Taha, the Secretary General of OIC and the Ministers for their gracious participation in the meeting.

The Secretary General OIC expressed his gratitude to the President of Pakistan for convening the Thirty-first Executive Committee meeting of COMSTECH. He conveyed his thanks and appreciation to the President of Pakistan for his patronage of COMSTECH and for the unwavering support of Pakistan to the OIC STI Agenda 2026. The Secretary General stressed the need to assist the Least Developed African OIC member states and called for COMSTECH to enhance its S&T training programs for Africa.

The Coordinator General COMSTECH thanked the Secretary General OIC for his illuminating statement and assured him of COMSTECH's full support for the Africa program.

The Coordinator General presented the agenda items of the meeting for discussion and approval. There were twelve items in the agenda. Each agenda item was presented by the Coordinator General, and was discussed in detail and then the decision for each item was made.

The adoption of the provisional agenda of the meeting, confirmation of the decisions of thirtieth executive committee meeting of COMSTECH, audit reports, contributions from the member states and approval for expenditure, review of COMSTECH

activities implemented, 1st and 2nd OIC summits on science and technology and implementation of the OIC STI Agenda 2026, actions taken by the Coordinator General, report of the Coordinator General on the status of Inter Islamic Networks of COMSTECH, new initiatives and policy guidelines from the Executive Committee, date for holding the sixteenth general assembly meeting of COMSTECH, draft provisional agenda for the sixteenth general assembly meeting of COMSTECH, were the part of the agenda of the meeting.



After the completion of discussions and making decisions on agenda items, the chairman opened the floor for comments and observations on the agenda items. The representative of the Kingdom of Saudi Arabia, H.E. Dr. Munir M. Eldesouki, President of the King Abdulaziz City for Science and Technology (KACST) thanked the Chair and COMSTECH for its support ensuring the success of the Executive Committee. He informed the meeting that the Kingdom of Saudi Arabia has initiated a new policy for STI under the patronage of His Highness Prince Muhammad bin Salman. He stated that the STI strategy would be announced soon by the Kingdom and would be shared with other OIC member states.

The Chairman COMSTECH expressed his thanks to the Kingdom of Saudi Arabia and drew attention to the impressive efforts to set-up the Neom City for Science and Technology. The Chair also appreciated the efforts of COMSTECH to strengthen the S&T cooperation within the OIC member states, especially the programs for the capacity building of the OIC member states. He also said that I believe the opportunity of online education will open the window for number of least developed countries of the OIC as this is less costly and more efficient.

The Executive Committee concluded at 4:30 pm with thanks to H.E. the President of Pakistan/Chairman COMSTECH.

Coordinator General COMSTECH Calls on the President of Pakistan

Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary called on the President of Pakistan, H. E. Dr. Arif Alvi at the President Secretariat, Islamabad, on December 21, 2022.

The President of Pakistan who is the Chairman of COMSTECH, appreciated COMSTECH programs and mentioned that today COMSTECH is one of the most active institutions in OIC system. Dr. Alvi appreciated COMSTECH Health Program for Africa and suggested to enhance it further to address the health issues being faced by the African and other OIC member states in crises.

Dr. Alvi advised the Coordinator General, Prof. Choudhary to start digital skills program for OIC member states, so that the benefits from the emerging employments in the fields of ICT can be harnessed as early as possible. He said that digital skills can help

reduce unemployment rate in OIC states by providing income generation opportunities to youth.

Prof. Choudhary briefed the President on the COMSTECH Africa Program, recent visit of the Secretary General of OIC to COMSTECH headquarters, implementation of the decisions of the 31st executive committee meeting, holding of the 16th general assembly meeting of COMSTECH, announcement of the 20 fellowships for Kazakhstan, and holding of the first rectors' conference of African alliance.

The President of Pakistan advised to continue these excellent initiatives and offered his full support to the COMSTECH programs focused towards the socio-economic uplift of the Ummah.



Secretary General OIC Visits COMSTECH

The Secretary General of the Organization of Islamic Cooperation, H. E. Mr. Hissein Brahim Taha, visited COMSTECH along with his ten-member delegation. Senior officials of Ministry of Foreign Affairs accompanied the OIC delegation.

The Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary, along with his team extended a very warm reception to the Secretary General and his team. Prof. Choudhary briefed the Secretary General about COMSTECH establishment, vision and mission, past achievements, current programs and future plans. He also conducted an orientation visit of the delegation to the COMSTECH facility and briefed on the state of the art training facilities available at COMSTECH for the capacity building of OIC states.

During the presentation of the COMSTECH report by the Coordinator General, the Secretary General of OIC discussed different COMSTECH programs and their impact on the development of the science and technology collaboration among the OIC member states. He also shared insightful thoughts and recommendations for the inclusion in COMSTECH future plans.

Mr. Taha appreciated the current COMSTECH programs: COMSTECH Consortium of Excellence, Palestine program, Yemen program, Africa program in health, fellowships program, COMSTECH-IFS research grants program, COMSTECH-ICGEB cooperation program, COMSTECH-TWAS Science in exile program, Research fellowships for OIC LDCs program, and capacity building webinars, workshops, conferences and exhibitions.



President IsDB Visits COMSTECH

H.E. Dr. Muhammad Al Jasser, President of the Islamic Development Bank (IsDB), along with senior officials, visited COMSTECH Secretariat in Islamabad on March 23, 2022.

H.E. Prof. Dr. Muhammad Iqbal Choudhary Coordinator General COMSTECH and senior officials of COMSTECH welcomed the honorable guests.

Prof. Choudhary briefed the Excellency on COMSTECH programs and new initiatives taken during the last two years. He said that COMSTECH is working closely with OIC General Secretariat, IsDB and other institutions in OIC system. Prof. Choudhary said that COMSTECH and the Islamic Development Bank are strategic partners working on several projects through South-South Cooperation to connect developing countries to help solve common problems.

He informed that since assuming the office of the Coordinator General COMSTECH, a large number of capacity building programs in key sectors have been initiated for the OIC member states, particularly for the African LDCs.

President of IsDB, H.E. Dr. Muhammad Al Jasser thanked the Coordinator General COMSTECH for the warm welcome and appreciated his efforts for uplift of the Muslim Ummah in the domain of science, technology and innovation. He suggested to develop consolidated programs which have tangible outcomes. He informed that IsDB is also conducting programs in the Ophthalmology in African member states. The President IsDB said that we should not waste our resources on the same programs. He referred to his speech at the CFM and expressed that he would like to know the operational framework on which COMSTECH is based. He said that COMSTECH is not an Academy of Sciences or a health institution providing healthcare services. He asked that what are your main areas and plans which are very crucial for focus? How can we leverage those for common benefit?

The President IsDB appreciated the work done by COMSTECH and the Coordinator General COMSTECH thanked Excellency and his delegation for the visit.



Lebanon Envoy Calls on Coordinator General COMSTECH

The Ambassador of Lebanon, H.E. Mr. Ghassan El Khatib visited COMSTECH to discuss and explore the avenues of mutual cooperation in the area of science and technology in Lebanon.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary offered the membership of COMSTECH Consortium of Excellence to five leading universities of Lebanon. He also offered research fellowships and technician training to the students of Lebanon at the prestigious member universities and institutions of COMSTECH Consortium of Excellence.

Both the dignitaries discussed the possibilities of the establishment of COMSTECH focal center in

Lebanon for Arab region to coordinate COMSTECH activities and enhance further science and technology cooperation among OIC Arab member states.

Mr. Khatib appreciated COMSTECH programs and the visionary leadership and thanked for offerings of research fellowships for Lebanon nationals and the membership of COMSTECH Consortium of Excellence offered to five Lebanese universities. He welcomed the establishment of COMSTECH focal center for Arab region in Lebanon and assured full support from his office for this initiative.



Afghan Envoy Calls on Coordinator General COMSTECH

Ambassador of Islamic Emirate of Afghanistan, Sardar Ahmed Khan Shakeeb, met with Coordinator General, OIC- Ministerial Committee of Scientific and Technological Cooperation (COMSTECH), Prof. Dr. Muhammad Iqbal Chaudhary, at COMSTECH Secretariat.

Prof. Chaudhary highlighted the role of COMSTECH to strengthen the science and technology in 57 Muslim Countries. He informed about the ongoing joint programs with Palestine, Yemen, and Somalia. Coordinator General highlighted that the President of Pakistan, who is chairman of COMSTECH has emphasized the need of supporting higher education and skill development in Afghanistan. In this regard various programs for the academic and research training of Afghan students and researchers in CCoE universities of Pakistan will be started.

The second part of the program will incorporate Afghanistan includes food security which is the dire need of the community. The Islamic organization for Food Security (IOFS), Kazakhstan and Pakistan Agriculture Research Council, Ministry of National Food Security and Research are organizing a workshop during February, 2023. This 3-Day joint IOFS-COMSTECH-PARC workshop on “Climate Resilient Wheat Crop Improvement for Food Security” will dedicate one day for the problems of wheat growing in

drought conditions in Afghanistan under the theme of “Afghanistan Wheat Issue: Breeding Nutritious and Climate Resilient Varieties”.

In the third part of the program COMSTECH in collaboration with Health Services Academy and University of Lahore will help health sector in Afghanistan. He said we can work together in Public Health in primary health settings, disease surveillance, medical technologies, ventilator, medicines and regulatory affairs to train Afghan healthcare workforce.

Sardar Ahmed Khan Shakeeb, Ambassador of Islamic Emirate of Afghanistan thanked Prof. M. Iqbal Chaudhary and appreciated the outstanding work of COMSTECH for Muslim Ummah. He said that there are strong indications from leadership of Afghan government for people and government of Pakistan, OIC member states, and COMSTECH for close liaison. Mr. Shakeeb said that the Afghan students desire to study in Pakistan and other OIC member states and avail the opportunities. He assured that the embassy of Afghanistan is strongly committed to follow up proposals, programs and initiatives for the benefit of Afghan people.

Consultant Health initiatives COMSTECH, Dr. Abdur Rashid and Head of Political, Cultural and Education, Embassy of Afghanistan, Mr. Ali Mansoor Khaliqyar, were also present at this occasion.



Yemen Envoy Calls on Coordinator General COMSTECH

The Ambassador of Yemen, H. E. Mohammed Motahar Alashabi called on Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary at COMSTECH secretariat.

Both the dignitaries discussed avenues of mutual interest and cooperation. During the meeting it was agreed upon that COMSTECH in collaboration with the Embassy of the Republic of Yemen in Islamabad will launch “COMSTECH-CCoE Yemen Programme” for the capacity building of Yemeni scientists.

H. E. Mohammed Motahar Alashabi, welcomed the offer of Coordinator General COMSTECH to start this capacity building programme for Yemeni nationals and offered full support to this initiative from the Embassy of the Republic of Yemen.

COMSTECH-CCoE Yemen Programme includes 50 fellowships for Yemeni nationals. These fellowships

are being offered by member institutions of COMSTECH Consortium of Excellence (CCoE): International Center for Chemical and Biological Sciences (ICCBS) (University of Karachi), The University of Lahore, Lahore, and Health Services Academy (HSA), Islamabad.

The ICCBS has offered 15-20 fellowships, whereas 15 fellowships have been offered by The University of Lahore and Health Services Academy Islamabad each.

Yemeni nationals holding Masters, PhD and Postdoc degree or currently enrolled at these levels are eligible to apply for these fellowships.

The objective of this programme is to provide high quality state-of-the-art training to Yemeni nationals so that they can serve their nation, as well as train and prepare young generation for future.



Coordinator General COMSTECH Calls on Secretary General OIC

Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary, called on Secretary-General of the Organization of Islamic Cooperation (OIC), H.E. Mr. Hissein Barahim Taha, at OIC General Secretariat, in Jeddah, Kingdom of Saudi Arabia.

Prof. Choudhary briefed the Secretary General OIC about the preparations for the 31st Executive Committee Meeting of COMSTECH, which is being held on January 27, 2022, in Islamabad, Pakistan, under the Chair of H.E. Dr. Arif Alvi, President, Islamic Republic of Pakistan/ Chairman COMSTECH.

Secretary General OIC conveyed his appreciation to the Government of Pakistan for generously supporting OIC's Ministerial Standing Committee for Scientific and Technological Cooperation

(COMSTECH). He assured his complete patronage to COMSTECH which is among the key OIC institutions.

Prof. Choudhary also briefed the Secretary General about the major programs and activities of COMSTECH in African OIC member states including: COMSTECH-IFS research grants to young African scholars, COMSTECH Consortium of Excellence Research/Training and Fellowship Program, COMSTECH Scholarships and Research Fellowships for Women Scientists in least developed countries in Africa, UNESCO-TWAS-COMSTECH Science in Exile Fellowship Programme for displaced and refugee scientists; and Eye camps, neuro-critical and dermatology camps along with workshops in Niger, Gambia and other African countries.

The Secretary General OIC appreciated the role of COMSTECH under the dynamic leadership of the Coordinator General COMSTECH and assured him full support of the OIC General Secretariat.



Foundation Meeting of the Alliance of Islamic Universities of Africa

COMSTECH organized foundation meeting of the Alliance of Islamic Universities of Africa at COMSTECH Secretariat. Vice Chancellors/Rectors of Muslim Universities from Uganda, Nigeria, Kenya, Tanzania, Kazakhstan, and Pakistan participated in the meeting.

Chairman HEC, Prof. Dr. Mukhtar Ahmed was the chief guest of the meeting. He welcomed the delegates to the foundation meeting of Alliance of Islamic Universities of Africa and appreciated the efforts of Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, for organizing this much needed meeting to support our Muslim brothers/sisters, and young minds of Africa in the fields of science, technology and higher education.

Chairman HEC suggested that the collaborations, knowledge sharing, best practices, exchange of scholars, educational technology transfer, and joint programs among higher education institutions of Africa and Pakistan can help to overcome the challenges if initiatives like the Alliance of Islamic Universities of Africa are well thought –out and well executed in true spirit.

Dr. Mukhtar pointed out that the one of the major developmental challenges in the African region is the limited number of skilled professionals and workforce and suggested that this issue can be addressed by improving their tertiary education system. Dr. Mukhtar said that this initiative will help us to build an ecosystem of collaboration and enable knowledge-based economic growth in the OIC member states,

particularly in the African region. He said that the alliance will open avenues to share ideas, skills, expertise, and best practices to pool resources for mutual support and benefit for each institution. He, on the behalf of the Higher Education Commission, assured sustained and full support to COMSTECH programs.

The Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary said that the idea of forming an alliance of Muslim Universities in non-OIC countries or in Muslim majority areas of OIC member states came out of discussion with Prof. Ismail, Vice Chancellor Islamic University in Uganda. He said the key motivation of this vision was to foster linkages between the Islamic universities of Africa and leading universities of the OIC region. Prof. Choudhary said that harnessing the creative potential of young African Muslims is the only way forward for the prosperity and development of Muslim communities in African continent. With this objective in mind, this alliance is created under the leadership of Prof. Ismail Gyagenda. He said that this alliance in linkages with the COMSTECH Consortium of Excellence member institutions will initiate: Exchange visits of senior management, Sabbatical and training visits of faculty and staff, Initiation of new academic and skill development programs, Joint research projects, Exchange of students, researchers and technicians, Workshops and training courses, and Special programs in emerging technologies. Prof. Choudhary concluded his remarks with the commitment to work closely with universities in Africa and Pakistan for a prosperous future of youth in African countries.

Opening remarks were delivered by Prof. Dr. Asmat of ICCBS. She welcomed the participants and gave comprehensive introduction of the meeting agenda, aims, and objectives.



Coordinator General COMSTECH Calls on Executive Director INTROM and Director IMR in Kuala Lumpur

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary invited the head of Inter-Islamic Network on Tropical Medicine (INTROM), Dr. Murizal Zainol, and Director Institute of Medical Research (IMR), Dr. Tahir Aris, at a breakfast meeting on August 10, 2022 at Concorde Hotel, Kuala Lumpur, Malaysia. Dr. Ahmad Faudzi Yusoff of International Collaboration Secretariat, IMR, National Institute of Health, Ministry of Health, Malaysia also attended the meeting.

The issues related to the activation of INTROM and potential collaboration with the IMR were discussed in detail. It was agreed that INTROM will submit the Act for establishment of its secretariat to the Malaysian parliament again to support and establish the

permanent secretariat and provide regular annual funding from the government of Malaysia. It was decided that further discussions on the collaboration between COMSTECH, IMR and INTROM will remain continued.

COMSTECH will help IMR/ INTROM to disseminate information about their activities including seminars, webinars, and online lecture series, and the Director IMR, Dr. Tahir Aris will identify some tropical medicine experts from different OIC member states as COMSTECH distinguished scholars, agreed in the meeting.

COMSTECH will provide travel support to scientists from Cote de Ivoire and African least developed countries for participation in IMR/ INTROM short training courses, and COMSTECH will also help INTROM to expand its membership.



Coordinator General COMSTEDH Calls on the Head of OIC-CERT

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, called on Senior Vice President of International and Govt. Engagement Division and Head of Organization of the Islamic Cooperation - Computer Emergency Response Teams (OIC-CERT), Mr. Mohd Shamir Hashim, on 10 August 2022 at Menara CyberAxis, Cyberjaya, OIC-CERT Secretariat, Malaysia.

Mr. Hashim gave a brief presentation on the activities of OIC-CERT and discussed the mechanism and highlighted the key areas of implementation. He informed that OIC-CERT would participate in the Steering Committee meeting of the Implementation of OIC STI Agenda.

Both the heads of organizations discussed ISO IEA 17001 certification, whereas OIC-CERT offered organizing online certificate courses together with

COMSTECH along with jointly organizing an international conference with COMSTECH.

OIC-CERT is an affiliate institution of the OIC with the vision to be a leading cyber security platform to make the world a safe cyber space. The mission of OIC-CERT is to provide a platform to develop cyber security capabilities to mitigate cyber threats by promoting global collaboration.

COMSTECH is an OIC ministerial standing committee on scientific and technological cooperation working for the socio-economic development of OIC member states through the application of science and technology.



Coordinator General COMSTECH Calls on the High Commissioner of Pakistan in Malaysia

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, had a meeting with the High Commissioner of Pakistan in Malaysia, H.E. Ms. Amna Baloch. The meeting was held at the Pakistan High Commission in Kuala Lumpur, Malaysia.

Coordinator General COMSTECH proposed the establishment of an alliance of the Islamic universities whose founding meeting to be held in Islamabad. The High Commissioner liked the proposal and assured her support. The High Commission of Pakistan in Kuala Lumpur is the member of board of governors of the International Islamic University, Malaysia, and is also a focal point of ASIAN region.

Coordinator General also briefed the High Commissioner about the MiGHT and TUBITAK joining of COMSTECH Consortium of Excellence.

Both the dignitaries discussed the avenues of COMSTECH and ICCBS collaboration with Malaysia. The High Commissioner and the Coordinator General agreed to structure the fellowships program for Malaysia and other ASIAN member countries and to launch this program in consultation with the Ministry of Foreign Affairs of Pakistan.



Coordinator General COMSTECH Calls on the High Commissioner of Nigeria

Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary called on the High Commissioner of the Federal Republic of Nigeria, H.E. Mr. Mohammed Bello Abioye at the Nigerian High Commission in Islamabad.

The High Commissioner of Nigeria extended a warm welcome to the Coordinator General COMSTECH. Both the dignitaries discussed avenues of mutual cooperation for the enhancement and application of science and technology to achieve optimum socioeconomic development in Nigeria.

Prof. Choudhary invited top universities of Nigeria to join the COMSTECH Consortium of Excellence (CCoE) which comprises upon key science, technology and engineering research and academic institutions of the OIC states. The objective of CCoE is to create science and technology interdependence, build S&T capacity and foster collaboration among the OIC member states.

Both the dignitaries agreed to launch the COMSTECH-Nigeria science and technology

cooperation initiative jointly with the coordination of the ministry of foreign affairs. This flagship joint initiative includes launching of women scientist research fellowship program, creating institutional linkages between Nigeria and Pakistan, capacity building of Nigerian scholars, compilation of a book comprising of joint research publications and patents of Pakistani and Nigerian scientists, and industrial internship for Nigerian professionals in food processing and value addition.

Prof. Choudhary proposed the visit of ten young Pakistani scholars to Nigerian premier R&D and academic institutions to develop greater understanding and application of academic excellence in Nigeria.

The Coordinator General also presented a report of activities of COMSTECH focused on Nigeria. The High Commissioner of Nigeria thanked the Coordinator General for generous support and appreciated the new proposed initiatives and assured full support from his office to COMSTECH initiatives for Nigeria.



Coordinator General COMSTECH Calls on the WHO Representative in Pakistan

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary called on WHO country representative in Pakistan, Dr. Palitha Mahipala at the office of World Health Organization in Islamabad.

During the meeting Prof. Dr. M. Iqbal Choudhary highlighted the role of COMSTECH in health, science, technology, higher education and climate in OIC member states. He said that OIC is a 2nd international organization after United Nations consisting of 57 member states from four continents.

Prof. Choudhary informed that COMSTECH is conducting about four training sessions monthly. These training sessions/seminars/workshops are arranged for 57 countries including 22 countries located in WHO/EMRO region. Experts with international repute give lectures on different S&T fields including health sector.

Prof. Choudhary said that COMSTECH is deeply involved in capacity building of OIC states in the cutting edge fields of science and technology. He said that COMSTECH has established a network of virology institutions consisting on Biofarma Indonesia, Kayseri Erinyes University Turkey. NRC, Turkey

Parexel, UAE and Pasteur Institute of Iran, NIH and ICCBS Pakistan.

Prof. Choudhary explored the avenues of COMSTECH WHO joint initiatives in the areas of disaster management, training in health sector, and primary diagnostic surveillance.

Dr. Palitha Mahipala appreciated the efforts of Prof. Dr. M. Iqbal Choudhary for capacity building of EMRO region including Pakistan in the field of healthcare. He said that WHO and COMSTECH can work together on telemedicine with respect to maternal and child health. He suggested that COMSTECH can initiate a program of telemedicine for health, and can expand it to private sector for teleconsultation. Dr. Mahipala proposed that patient safety, research in primary healthcare and strengthening of operational research are the areas where both organizations can work together. It was also discussed that WHO (Pakistan) will work towards recognition of COMSTECH as WHO collaborating center in coming years. The resumption of COMSTECH-WHO/EMRO research grant program which was started in 2004 was also discussed.

Both officials agreed to organize a five-day training course with joint collaboration of WHO, HSA and COMSTECH, in the last week of May 2022. It is pertinent to mention that Dr. Abdur Rashid, Consultant (Health Initiatives), COMSTECH was also present in meeting.



Coordinator General COMSTECH Calls on the Russian Representative to OIC and Envoy in Pakistan

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary had a meeting with H.E. Mr. Ramazan Abdulatipov, the permanent representative of Russia to the OIC and H. E. Mr. Danila Ganich, the Ambassador of Russia to Pakistan.

The dignitaries discussed and agreed to develop a 5-10-year cooperation program between COMSTECH and Russian Cooperation Agency for the development of science and technology in OIC states. This program would help develop linkages between Russian Cooperation Agency and the OIC member states. Scholars exchange program and signing of MoUs with top Russian universities would be part of this program.

Russia would support enhancing capacity in artificial intelligence and exploring medical health care systems in OIC least developed countries particularly African member states.

COMSTECH would facilitate visits of scholars, scientists and technicians from OIC states to top science and technology institutions and laboratories of Russia in basic sciences, engineering, biomedical sciences, and public health.

H.E. Mr. Ramazan Abdulatipov, the permanent representative of Russia to the OIC, appreciated the role of Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary for his efforts for the advancement of science and technology in OIC member states. Prof. Choudhary presented COMSTECH souvenir to both the dignitaries.



Coordinator General COMSTECH Calls on Uzbek Ambassador

Coordinator General COMSTECH, H. E. Prof. Dr. M. Iqbal Choudhary visited the Embassy of the Republic of Uzbekistan in Islamabad and had a meeting with the Ambassador of the Republic of Uzbekistan, H.E. Mr. Oybek Arif Usmanov in Pakistan.

The dignitaries had a comprehensive discussion on exploring possible avenues of cooperation between COMSTECH and Uzbekistan in 2022, and 2023, respectively. The Ambassador appreciated the role of COMSTECH and the passion of Prof. Choudhary for the development of science and technology in OIC region.

Prof. Choudhary briefed the Uzbek Ambassador about COMSTECH programs' contribution to Uzbekistan and joint initiatives conducted in the past, and informed him on current programs and future planned initiatives of cooperation between COMSTECH and Uzbekistan.

The dignitaries discussed the organization of 2nd OIC robotics competition and Olympiad in mathematics in Uzbekistan. They also discussed conducting global celebrations of Mirza Muhammad Ulugh Beg — renowned astronomer and mathematician — by organizing series of events including a large international conference, jointly by COMSTECH, OIC General Secretariat and the Government of Uzbekistan in 2024.

They exchanged ideas on the establishment of a center on information technology and artificial intelligence for OIC, and the training of managers of science and technology parks in Uzbekistan.

Both the dignitaries agreed to enhance cooperation and work together to implement the above mentioned programs.



Steering Committee Meeting for Implementation of the OIC STI Agenda 2026

On the sidelines of the recently concluded OIC Council of Foreign Ministers (CFM) meeting, the Steering Committee for implementation of the OIC Science, Technology and Innovation Agenda 2026 held a day-long meeting at the COMSTECH Secretariat in Islamabad on 24th March 2022. The purpose of the meeting was to review the progress and to plan various science and technology related initiatives for the member states.

The meeting organized and chaired by COMSTECH was attended by all the leading institutions and specialized organizations of the OIC that focus on different areas of science, technology, innovation, and their applications to society.

Besides COMSTECH, which is the OIC Ministerial Standing Committee on Scientific and Technological Cooperation, and is hosted by Pakistan, the heads and representatives of twelve OIC organizations participated physically, while two other organizations participated online.

The Committee approved an extended Plan of Action based on joint initiatives involving various member organizations and partners in areas such as higher education and research, health, medicine, vaccine development, food security and water resources, emerging technologies, promoting innovation, and the organization of science competitions, etc. Of special consideration for the meeting was the decision to focus strongly on the lessor developed African countries and to create programs for the development of their manpower and useful technologies. The

meeting strongly endorsed the need not only to support projects that channelize science and technology for development, but also to create programs that inculcate the spirit of inquiry and creativity in our youth.

The Coordinator General of COMSTECH, Prof. Dr. Muhammad Iqbal Choudhary welcomed the participants and reviewed the working of the Committee for the past few years and the plans for the future. He also presented to the Committee the prototypes of the ongoing COMSTECH initiative on preparing STI reports for each of the OIC member states. The representative from SESRIC also presented a detailed statistical report on the general development of STI in member states based on the analysis of various representative parameters.

It was decided to constitute expert committees to review the progress in STI made by member states in the past few years and to prepare guidelines for future actions.

The meeting was also addressed by Assistant Secretary General (S&T) of the OIC, Ambassador Askar Mussinov, who appraised the members of the needs for African member states, as well as expectation of the OIC that the Steering Committee will play a leading role in steering the Member States towards meaningful activities to fulfil the goals of the OIC STI Agenda 2026 and the Abu Dhabi Declaration; the outcomes of the 1st and 2nd OIC S&T Summits respectively.

The meeting ended with the resolve to initiate various joint efforts as presented in the approved Action Matrix and also to set in motion the evaluation process of the implementation of science and technology agenda for the past five years based on the COMSTECH and SESRIC reports.



Virtual Orientation Session on Palestine Program

COMSTECH organized a virtual orientation session on Palestine program which includes offer of 500 fellowships and scholarships for Palestinian nationals by the Pakistani member universities of COMSTECH Consortium of Excellence.

The Coordinator General COMSTECH welcomed the participants of the session and said that I am absolutely pleased to have this session and delighted to have very prominent officials from Palestine along with the Ambassador of Palestine, H.E. Mr. Ahmed Jawad A.A. Rabei in Pakistan.

Prof. Choudhary said this program of scholarships and research fellowships is indeed a culmination of lots of thoughts and work in which the Palestinian ambassador has played an extremely important role along with Mr. Murtaza Noor who is advising us on international relations and coordinating our efforts with the universities of Pakistan.

He said that the incident after incident, and atrocities after atrocities, the history is full of these annoying and heart breaking events which we see in Palestine and that have made all of us sensitive to the needs of our brothers and sisters in Palestine. We have good understanding and appreciation of Palestinian cause, based on these feeling we decided to work closely with many universities in Pakistan to help our brothers and sisters in Palestine to continue their education in different fields largely in science and technology and engineering so they can go back and server their country and contribute in furthering the cause of Palestine, and this is the best thing which we could do.

Prof. Choudhary said that we have the support of ministry of science and technology, ministry of foreign affairs and the excellency president of Pakistan, who is also the chairman of COMSTECH. The foreign minister of Palestine was informed by the President of Pakistan on the occasion of CFM about this program. He informed that there will be a ceremonial launching of this program after Eid ul Fitr. Host institutions are eagerly waiting Palestinian scholars to provide them an excellent environment and opportunity of learning in different fields of science and technology and engineering.

Dr. Basri Saleh, Deputy Minister for Higher Education, conveyed his best regards to all from Palestine. On behalf of Palestinian Scientific Research, we are grateful for initiative of the President of Pakistan Dr. Arif Alvi to provide research fellowships and scholarships opportunities to Palestinian researchers and extend thanks to all brothers in Pakistan and the government for supporting Palestine.

Thanks to COMSTECH for establishing COMSTECH Consortium of Excellence to offer fellowships and scholarships for scientific research and development. The minister encourages this program which creates research opportunities for students. We hope this program will help in increasing the number of researchers. He extended thanks to the ministry of foreign affairs and ministry of science and technology Pakistan and COMSTECH.

H.E. Mr. Ahmed Jawad A.A. Rabei, Ambassador of Palestine in Pakistan thanked the President of Pakistan, the Coordinator General COMSTECH and the Minister of Science and Technology for taking this initiative of scholarships and fellowships for the people of Palestine. He said the people of Palestine and the government extend heart-felt thanks to the people and government of Pakistan. He said that we are grateful to Pakistan for unwavering support on all areas and fronts. The Ambassador also informed the participants of the session from Palestine about the efforts made to launch this program and encouraged the Palestinian researchers to actively participate in the program.

Mr. Kamran Akhtar, Director General (ACDIS & Science Diplomacy), Ministry of Foreign Affairs, said we always supported the cause of the state of Palestine and we have been steadfast in our support. This program is the one of the practical manifestation of our support to build the capacity and make them partner in the field of higher education. We are grateful to COMSTECH for making this possible as well as the higher education institutes in Pakistan which have agreed to join this program. The Ministry of Foreign Affairs will continue to coordinate with COMSTECH in assessing the program progress and finding further avenues of building up relations with the government and people of Palestine. This continues to be the one of the priorities of ministry of foreign affairs.

Mr. Murtaza Noor, Advisor to Coordinator General COMSTECH, said that this program offers 500 scholarships.

Memoranda of Understanding



COMSTECH and CILSS Enters into MoU

The Memorandum of Understanding (MoU) on bilateral cooperation signed between OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) and Permanent Inter-State Committee for Drought Control in the Sahel (CILSS).

The purpose of the MoU is to define the framework as well as the modalities of scientific and technological cooperation between CILSS and COMSTECH in areas of mutual interest, with particular focus on food and nutritional security, natural resource and water management, population, gender, climate change, and conservation and restoration of ecosystems.

Both organizations will cooperate to implement joint programs of scientific and technical nature to promote and strengthen cooperation to provide a platform for collaborative activities in the fields of mutual interest and encourage mobility and cooperation. It will include sharing experiences and best practices, development of methodologies, and mobility of experts.

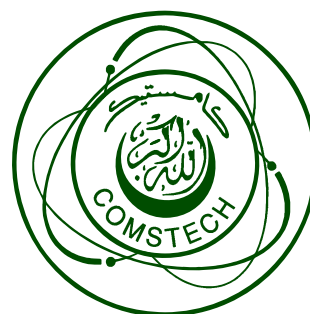
The cooperation between the both organizations includes combating desertification and mitigating the effects of climate change against land degradation and improvement of land productivity, preventive management of the impact of climate change and natural disasters. Both organizations will cooperate on water management, population development, capacity building on data management, artificial intelligence and machine learning, food and nutrition security, and resilient capacity building to combat poverty.

Cooperative activities between the organizations may include joint organization of events such as sessions, side events, seminars, research activities, and exchange of information, conducting prospective studies on topics of common interest, capacity building and support for the implementation of environmental programs, and joint mobilization of resources for the implementation of projects and programs at the regional level.

The MoU was signed by the Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, and the Executive Secretary CILSS, Dr. Abdoulaye Mohamadolt.

COMSTECH is the Ministerial Standing Committee on Scientific and Technological Cooperation of the Organization of Islamic Cooperation (OIC). The core mandate of COMSTECH is to nurture cooperation among OIC states in science and technology and enhance their capabilities through training in emerging areas.

Permanent Inter-State Committee for Drought Control in the Sahel (CILSS), is an Intergovernmental Organization. The mandate of CILSS is to invest in the search for food and security and in the fight against the effects of climate change mainly of drought and desertification, for a new ecological balance in the Sahel. CILSS is headquartered in Ouagadougou, Burkina Faso.



COMSTECH and IUIU Uganda Sign MoU

The Rector of the Islamic University in Uganda (IUIU), Prof. Dr. Ismail Simbwa Gyagenda and the Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary signed a Memorandum of Understanding (MoU) at COMSTECH Secretariat.

The intent of this MoU is to promote and strengthen the cooperation between COMSTECH and IUIU by providing a platform for collaborative activities such as sharing experiences and best practices, development of methodologies and mobility of experts in the relevant fields of mutual interest.

Under the MoU, COMSTECH will help IUIU in developing linkages with the institutions in OIC region, and will develop a programme in association with IUIU through which young researchers/ students from IUIU and different least developed OIC member countries from Africa may visit Pakistan and conduct research for 6 to 12-month duration. COMSTECH will also arrange the visit of distinguished scholars to

IUIU to deliver lectures, conduct workshops and training courses.

The MoU enables IUIU to get consultancy from COMSTECH Advisory Council. IUIU will be able to collaborate in organizing national and international events such as workshops, conferences, symposia, and exhibitions in different fields. IUIU will become the member of COMSTECH Consortium of Excellence along with registration on COMSTECH technology portal.

IUIU will support COMSTECH in organizing medical training in the fields of ophthalmology and telemedicine in least developed OIC member countries in Africa along with conducting eye surgery camps.

The Islamic University in Uganda was established in 1988 by the Organization of Islamic Cooperation under a bilateral agreement with the Government of Uganda. COMSTECH is Pakistan based ministerial standing committee on scientific and technological cooperation of the Organization of Islamic Cooperation established in 1981.



COMSTECH and MSTF Sign MoU to Enhance Cooperation

The Memorandum of Understanding (MoU) is signed by COMSTECH the Ministerial Standing Committee on Scientific and Technological Cooperation of the OIC, Islamabad, Pakistan, represented by its Coordinator General, Prof. Dr. M. Iqbal Choudhary and Mustafa (PBUH) Science and Technology Foundation, Tehran, Iran represented by its CEO, Mahdi Safarinia.

The MoU will encourage discussions and cooperation between the both organizations and individual scientists and employees within each organization in relation to opportunities for collaborative research activities and increasing the capacity of actual and potential role-players who avidly seek the advancement of science, technology, and innovation in the Islamic World.

The MoU is devised to support the development of collaboration between the both organizations in areas of mutual interest with the focus on the value that can be achieved through working in collaboration to achieve the shared aims and objectives.

Both organizations will jointly promote cooperation, consult with each other on identifying best practices in the use of technical cooperation methodologies in the areas of science and technology, socio-economic development, rapid industrialization, and related areas of common interest.

Both organizations will exchange documentation and information in their respective fields of competence, implement programs and projects to develop the technological and scientific capacity of OIC member states, and jointly apply for funding opportunities available from domestic and international sources to develop the technological and scientific capacity of OIC member states.

Mustafa Science and Technology Foundation and COMSTECH also signed a joint young scientists' fellowship program agreement to support the young scientists with the cooperation of prestigious scientific and research institutes of reputable companies in Islamic countries. The program will support young scholars and technologists by providing them 6 to 12 month long fellowships.



COMSTECH and HSA Ink LoU to Build Public Health Capacity in OIC States

COMSTECH and Health Services Academy (HSA) signed a Letter of Understanding (LoU) to collaborate in the areas of: teaching, research, knowledge transfer, and exchange of information with the focus to achieve shared aims and objectives, at COMSTECH Secretariat.

It was agreed upon to conduct online, and in-person training in African regions in basic health sciences, and policy making by sending prominent experts in a particular field to the region to train people not only from the host country but also from the neighboring countries as well. Both the institutions resolved to carry out extensive capacity building programs public health in African regions.

It was agreed to develop joint research programs; invite scholars for lectures, talks and participation in conferences, colloquia and symposia; organize workshops, exchange information and publications; and facilitate faculty and staff visits to the partner institutions of OIC member states.

COMSTECH would invite the Health Services

Academy (HSA), Pakistan, as a member of COMSTECH Consortium of excellence for the development and promotion of public health activities in OIC member states. Distinguished teachers, professors, researchers of HSA would work as resource persons for capacity building in public health of OIC member states.

HSA in collaboration with COMSTECH would submit a project proposal of the establishment of Infectious Diseases Center in Gambia under Resource Linkage Programme of Islamic Development Bank.

The Health Services Academy, is a degree awarding institute, under the umbrella of Ministry of National Health Services Regulations & Coordination, Government of Pakistan. HSA offers long term, short term teaching training and research programs in public health.

The COMSTECH is the Ministerial Standing Committee on Scientific and Technological Cooperation of the OIC. The President of Pakistan is the Chairman of COMSTECH. COMSTECH works for the socio-economic development of OIC member states through capacity building in frontier fields of science and technology, and strengthening cooperation.



COMSTECH Signs MoU with IOFS

OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) and Islamic Organization for Food Security (IOFS) signed Memorandum of Understanding (MoU). The MoU was signed at COMSTECH Secretariat by Coordinator General COMSTECH and Director General, IOFS.

Astana based IOFS fosters the socio-economic development of its member countries with ultimate goal of promoting food security, sustainable agriculture and rural development, whereas Islamabad based COMSTECH builds indigenous capabilities of OIC member states in the fields of science and technology through cooperation and mutual assistance.

In pursuit of common objectives both organizations intend to establish a general framework to facilitate and implement the collaboration and cooperation in areas of common interest. IOFS-COMSTECH

partnership will focus on scaling-up ongoing initiatives and exploring new opportunities to collaborate on global, regional and country-level priorities.

The areas of cooperation include: joint projects, identifying S&T needs of OIC states, capacity-building activities in agriculture and food security, exchange of information, and joint research.



COMSTECH Celebrations



WHO and COMSTECH Celebrate World Patient Safety Day

World Health Organization in collaboration with COMSTECH celebrated “World Patient Safety Day” under the slogan of “Medication without Harm” at COMSTECH.

World Patient Safety Day is marked annually on 17 September. It aims to raise awareness on how to prevent, reduce risks, errors, and harm that occur to patients during the provision of health care.

In keynote address, Dr. Palitha Mahipala, Head of Mission/WHO Representative to Pakistan said that WHO's vision is to ensure that every patient receives safe and respectful care, every time, everywhere. He said, around 134 million adverse events happen in hospitals due to unsafe healthcare practices. Out of which estimated 2.6 million patients die annually. The social cost of patient harm is estimated to be US\$ 1 - 2 trillion a year. He said that the theme of this year's commemoration is “Medication Safety” which addresses a critical component of safety in health care.

Dr. Mahipala said that unsafe medication practices and errors are a leading cause of injury and avoidable harm in health care systems across the world. He mentioned that globally the cost associated with medication errors has been estimated at \$42 billion annually. He informed that the most harm arises from systems failures in the way care is organized and coordinated.

Dr. Mahipala said, in Pakistan, a small research study on Patient Safety & adverse events conducted in 2021 in 5 hospitals throughout the country, which found that diagnostic errors comprise 40%, while surgical or procedure-related errors comprise 32% error, complications of childbirth-15%, adverse medication-related events 9%, and healthcare-associated infection or pneumonia 4% of all adverse effects.

Prof. Dr. M. Iqbal Choudhary, Coordinator General, COMSTECH said that we are delighted to partner with the WHO not only for this event, but we plan to work together for the common mission of improved health. He said that World Patient Safety Day calls for global solidarity and concerted action by all countries and international partners to improve patient safety.

Prof. Choudhary said that hardly anyone among you can claim that you have not experienced the bad effect of certain medication. He said that multi-drug resistance in pathogenic agents, cancer cells, etc. are largely associated with the improper use of antibiotics and anti-virals.

He mentioned that many of us use medications for chronic illnesses such as diabetes, hypertension, etc. In such cases, cumulative harmful effects of medication kills patients before the actual disease cause mortality.

Prof. Choudhary said in the OIC countries, population increase, lack of access to quality health care including pharmacy services, weak control on the sale of prescribed medicines, illiteracy, and poverty are major impediments in the safe use of medication as well causes of prevailing harmful effects.

Director General Health, Dr. Shabana Saleem, Ministry of National Health Services, Regulation and Coordination said that the Director General of WHO, Tedros Ghebreyesus, noted in a recent press conference that the 2022 world patient safety day celebrated every year and is focused on medication without harm. According to him medication errors account for half of all avoidable harm in medical care.

She said the major contributing factors to unsafe practices are weak medication systems and human factors, with many countries lacking the capacity to detect, evaluate and prevent medicine safety issues.



COMSTECH Celebrates World Food Day - Leave No One Behind

COMSTECH in partnership with UPSIGN, SAWIE, ICCFS, IFS & Pakistan Science Foundation (PSF) celebrated world food day. The slogan for world food day this year was "Leave No One Behind".

To mark this year's World Food Day, keynote talks and panel discussions were arranged with experts from all over the world with several years of experience in Agri-food research systems. The webinar discussed the key challenge faced by our food system from climate change and other threats.

The experts said that our food system is suffering from malnutrition and food security. The debate uncovered how sustainable use of natural resources could help to enhance productivity, soil health, water, and the role of biodiversity. The question of how can we address the food production crisis, protecting our soil microbes, plants, animals & natural capital, and produce healthy food to support a healthy life and a healthy planet was discussed.

The panelists also discussed the way forward to address the impact of COVID and recent floods in Pakistan on food security. They talked about how the research, and knowledge exchange of good practices could be translated to develop climate change adaptation strategies, mitigation, and what specific measures can be taken to support the climate crisis victims. The panelists pondered upon creating the resilient growth that does not leave anyone behind.

The experts noted that Pakistan is one of the top ten countries which are most vulnerable to the climate change crisis. They agreed that the climate change disaster has affected its food system with extreme heat, droughts, unpredicted rain patterns, and attacks from invasive species of pests & diseases.

COMSTECH the OIC Ministerial Standing Committee on Scientific and Technological Cooperation, joined hands with the leading research, academic & farming organizations from Pakistan and around the world for hosting the World Food Day celebration. These partners were UPSIGN, SAWIE, ICCFS, IFS & Pakistan Science Foundation (PSF). UPSIGN is an educational charity based in the UK supporting collaborations between UK & Pakistan. SAWIE is a digital platform based in the UK and Pakistan offering farm advisory & data insights. International Center for Climate Change, Food Security & Sustainability (ICCCFS)/Consortium on Climate Change, Sustainability & Conservation (CCSC), The Islamia University Bahawalpur are leading research organizations. The International Foundation for Science, IFS, is an international, non-governmental organization.



COMSTECH and PNAC Celebrate Accreditation Day

COMSTECH and Pakistan National Accreditation Council (PNAC) jointly celebrated the accreditation day by organizing a seminar on “Accreditation for Quality Assurance and Socio-economic Development in OIC Countries”.

Secretary for Ministry of Science and Technology, Mr. Ghulam Muhammad Memon participated as the chief guest in the event. He said that this is an honor and privilege to address such an august gathering of scientists, policy makers and diplomats. He said today's event emphasizes the importance of accreditation and its role for socio-economic development. Mr. Memon said that sustainable economic growth and poverty reduction can be achieved by augmenting the international trade which can only be possible through robust accreditation, certification, quality and testing infrastructure recognized by the relevant international forums. He appreciated COMSTECH and PNAC joint initiative to strengthen accreditation bodies to enhance the conformity and assessment quality in Pakistan and least developed African countries.

The Assistant Secretary General of Organization of Islamic Cooperation, Ambassador Askar Mussinov said in his message that I am really delighted to have an opportunity of speaking at this event jointly organized by COMSTECH and PNAC. The OIC is at the same page in celebration of the accreditation day. He said that it is of immense importance to ensure the quality measurement for socio-economic development of any country. He said that accreditation and conformity assessment play major role in achieving technical competence, integrity and impartiality of organizations along with making them to conform with international standards. He said that International standards organizations also open ways to secure markets to provide sale able products. He

said that accreditation organizations help in reducing the human impact on the environment. Mr. Mussinov commended COMSTECH for its numerous capacity building initiatives for the least developed member states to help them to acquire knowledge and skills.

Coordinator General COMSTECH, Prof. Dr. M. Iqbal Choudhary, welcomed the participants and shed light on the importance of accreditation for OIC member states. Prof. Choudhary said that accreditation is an extremely important approach towards standardization of the processes and products, analytical and diagnostic methods, scientific research or even business. He said that accreditation is now globally accepted as the gold standard of best practices in all forms of human endeavors. He briefed the audience about the large portfolio of S&T capacity building programs of COMSTECH in its 57 member states, as well as its role in Pakistan's science diplomacy initiative.

The Director General PNAC, Ms. Ismat Gul Khattak gave a comprehensive talk on the importance of accreditation in achieving sustainable economic growth. She talked about the PNAC initiatives and achievements. Ms. Khattak said that PNAC can collaborate with OIC member states to provide accreditation training, develop pool of assessors, help in capacity building, share experiences, conduct joint assessment, provide accreditation services and conduct peer evaluation.

The President of Kazakhstan National Center of State Scientific and Technical Expertise (NSCTE), Prof. Dr. Adil Ibrayev, joined the session through Zoom. He talked about the aims, objectives and current achievements of NSCTE. Prof. Ibrayev offered collaboration of NSCTE with COMSTECH, PNAC and the OIC member states to work together.

The event was attended by participants both in-person and online from different OIC member states.



COMSTECH Celebrates World Science Day

World Science Day for Peace and Development was observed at COMSTECH Secretariat Islamabad with the theme of "Basic Science for Sustainable Development" on 16th November, 2022.

The event was jointly organized by COMSTECH, UNESCO, COMSATS, Pakistan Academy of Sciences, Pakistan Science Foundation, and ECO Science Foundation.

Speaking at the event, Coordinator General COMSTECH, Professor Dr. Muhammad Iqbal Choudhary said that "Basic science education at school and colleges levels, especially in mathematics, chemistry, physics, and biology not only inculcate scientific curiosity and joy of learning in students but also prepares them for more interdisciplinary scientific disciplines.

He added that "unfortunately, the OIC region is faced with the triple challenge of conflicts, poverty, and environmental degradation. Among the most climate vulnerable countries of the world, several are in the OIC region. Contributions of OIC countries to global greenhouse gas emission is minimum but the impact of climate change is felt far and wide, from sinking Jakarta and Maldives to the disappearing coastline of southern Bangladesh, heatwaves in MENA and South Asian regions, forest fires in Turkey and Indonesia, desertification of OIC countries at both ends of the Sahara, drought in sub-tropical Africa, and many more. He also said that "We at COMSTECH are committed to working with our partners in the OIC region and beyond to help in building a responsible science"

Director of UNESCO in Pakistan, Dr. Yusuf Falali shared with the participants that the Science, Technology and Innovation (STI) are critical drivers behind sustainable development and economic growth. For this reason, scientists should be provided conducive environment so they can work freely for the betterment of humanity. He highlighted that by linking science more closely with society, World Science Day for Peace and Development aims to ensure that citizens are kept informed of developments in science. He also underscored the role of scientists.

Prof. Dr. Shahid Mahmood Baig, Chairman Pakistan Science Foundation highlighted that the basic sciences are key of scientific advancement and PSF is utilizing more than 30% of its budget for supporting research in the fields of agriculture, water resources, energy,

environment, and many others. He informed that two mega projects have been initiated by PSF-MoST namely "Launching of STEM in Pakistan", under which STEM FabLabs will be established in 50 high schools of the country and the "Science Talent Farming Scheme (STFS)" mainly meant for motivating the young generation towards science education.

The former ambassador and Executive Director of COMSATS, Dr. Nafis Zakaria said that the COMSATS is an intergovernmental organization of 27 developing countries, and has been promoting science and technology through a variety of initiatives related to capacity-building; collaborative research and development; and exchange of knowledge, experiences, good practices and technological resources among the member countries. COMSATS' Network of Centers of Excellence, currently comprising 24 reputed R&D centers and S&T universities, offer remarkable research and training opportunities for researchers from the developing economies.

Dr. Tasawar Hayat, Secretary Pakistan Academy of Sciences talked about the need of basic sciences for sustainable development and shared his experience and highlighted role of PAS for development of science in the country.

The role of ECO-SF for promotion of basic sciences was highlighted by Mr. Khalil the representative of the President ECO-SF, who read out his message and described various initiatives for sustainable development through basic sciences.

Ambassadors of different countries, heads of different scientific and research institutions, scientific experts, and students of universities participated in the ceremony.



China Honors

Prof. Dr. M. Iqbal Choudhary with China Friendship Award

H.E. Prof. Dr. M. Iqbal Choudhary, Coordinator General COMSTECH/ Director ICCBS honored by the government of China with the Chinese Government's Friendship Award. The award was presented by His Excellency Mr. Nong Rong, Ambassador of the People's Republic of China in Pakistan in a special ceremony held at the Chinese Embassy in Islamabad.

Chinese Government's Friendship Award is the People's Republic of China's highest award for "foreign experts who have made outstanding contributions to the country's economic and social progress". The winners of this award have been selected by the State Administration of Foreign Experts Affairs (SAFEA) under the State Council. The award is conferred as part of the celebrations for the National Day of the People's Republic of China on October 1 and it consists upon a medal and an award certificate.

Prof. Choudhary has played a key China-Pakistan cooperation in the field of science and technology, including establishment of Sino-Pakistan centers in various fields. This includes the national institute of virology at the PCMD, in collaboration of Wuhan Institute of Virology China.

Prof. Dr. Muhammad Iqbal Choudhary is a world renowned medicinal chemist. He has published 1,175 research papers in the fields of organic and bioorganic chemistry in international journals, 76 books and 40 chapters in books published by major US and European press. He has secured 40 US patents so far.

Prof. Choudhary's work has been cited by the researchers from around the world over 30,000 times and his h-index is 80. By now 94 national and international scholars have completed their PhD degrees under his supervision.

Prof. Choudhary is D.Sc., Ph.D., and C. Chem. He has been awarded by different governments of Pakistan with Hilal-e-Imtiaz, Sitara-e-Imtiaz, and Tamgha-e-Imtiaz.

He has been elected fellow by world renowned science academies named Academy of Sciences for the Developing World, Islamic World academy of Sciences, Pakistan Academy of Sciences, Royal Society of Chemistry, and Chemical Society of Pakistan.

Prof. Choudhary has been honored by the President of Iran with Khwarizmi International Award, President of Azerbaijan, with ECO Award in Education and the Prime Minister of Pakistan with COMSTECH Award in Chemistry. He is Mustafa (PBUH) Prize Laureate. He has been given the prestigious title of "Distinguished National Professor" by the Higher Education Commission in 2004 and Meritorious Professor by the University of Karachi in 2013.

Prof. Dr. M. Iqbal Choudhary is currently serving as Coordinator General, COMSTECH and Director, International Center for Chemical and Biological Sciences, University of Karachi.



International Turkic Academy Honors Prof. Dr. M. Iqbal Choudhary with Gold Medal

The President of the International Turkic Academy, Dr. Darkhan Kydyrali presented gold medal to Prof. Dr. M. Iqbal Choudhary, Coordinator General, COMSTECH on the occasion of international “Al-Farabi – Iqbal” forum held in Almaty, Kazakhstan.

The president of the Turkic Academy said that the Academy is awarding Prof. Dr. M. Iqbal Choudhary with its prestigious award “Gold Medal” for his exceptional contribution to the development of cooperation in the Turkic world.

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Dr. Choudhary is D.Sc., Ph.D., and C. Chem. He has been awarded by different governments of Pakistan with Hilal-e-Imtiaz, Sitara-e-Imtiaz, and Tamgha-e-Imtiaz. He is a laureate of Mustafa PBUH Prize, ECO Award, Khawarzimi Award, COMSTECH Award, TWAS Young Scientist Award, and Prof. Abdus Salam Prize.



Kazakhstan Bestows National Award to Prof. M. Iqbal Choudhary

The Ambassador of Kazakhstan H. E. Yerzhan Kistafin presented the Kazakhstan national award to Prof. Dr. M. Iqbal Choudhary during the launching ceremony of the proceedings of global Al-Farabi forum.

The Ambassador said that it is his honour to present national award of Kazakhstan to Prof. Dr. M. Iqbal Choudhary. He said that Dr. Choudhary is

representing the modern scientific community to promote science and this award is being given in recognition of his services to Kazakhstan.

Dr. Choudhary said that he has been engaged with Kazakhstan since 1988 for the development of capacity in chemistry and biochemistry. He helped Kazakhstan in establishing many laboratories and institutions. He has supervised many PhD students of Kazakhstan and he is teaching chemistry course.



Coordinator General COMSTECH Honoured with Top Muslim World Science Award “The Mustafa Prize”

The Mustafa Prize — International symbol of scientific excellence — for the year of 2021 has been awarded to Prof. Dr. Muhammad Iqbal Choudhary of Pakistan in the field of bio-organic chemistry.

The Mustafa Prize, a top science and technology award, is granted biennially to the top researchers and scientists of the Islamic world in four categories: “Life and Medical Science and Technology”, “Nanoscience and Nanotechnology”, “Information and Communication Science and Technology”, and “All areas of science and technology”. The Mustafa Prize was established in 2012 as a symbol of scientific excellence at the international level, and it is regarded as Nobel prize of the Muslim world.

Five scientists each from Pakistan, Iran, Bangladesh, Lebanon and Morocco have been awarded The Mustafa Prize in their respective fields of study.

Prof. Dr. Muhammad Iqbal Choudhary is world renowned medicinal chemist. He has published 1,175 research papers in the fields of organic and bioorganic chemistry in international journals, 76 books and 40

chapters in books published by major US and European press. He has secured 40 US patents so far.

Dr. Iqbal's work has been cited by the researchers from around the world by 27,407 times and his h-index is 70. By now 94 national and international scholars have completed their PhD degrees under his supervision.

Dr. Iqbal is D.Sc., Ph.D., and C. Chem. He has been awarded by different governments of Pakistan with Hilal-e-Imtiaz, Sitara-e-Imtiaz, and Tamgha-e-Imtiaz.

He has been elected fellow by world renowned science academies named Academy of Sciences for the Developing World, Islamic World academy of Sciences, Pakistan Academy of Sciences, Royal Society of Chemistry, and Chemical Society of Pakistan.

Prof. Iqbal has been honored by the President of Iran with Khwarizmi International Award, President of Azerbaijan, with ECO Award in Education and the Prime Minister of Pakistan with COMSTECH Award in Chemistry.

He has been given the prestigious title of “Distinguished National Professor” by the Higher Education Commission in 2004 and Meritorious Professor by the University of Karachi in 2013.



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