



Newsletter

PAKISTAN ACADEMY OF SCIENCES

Promoting Science, Technology and Innovation for Socio-economic Development

Volume 17, No. 2

APRIL 2022

President

Prof. Dr. Khalid M. Khan
SI

Secretary General

Prof. Dr. Tasawar Hayat
HI, SI, TI

Treasurer

Prof. Dr. Amin Badshah
TI

Editor

Dr. Irum Iqbal

**Fellows and Members
may submit news and
views related to Science
and Technology to:**

Editor

**Pakistan Academy of
Sciences
3-Constitution Avenue,
G-5/2, Islamabad,
Pakistan**

Email: editor@paspk.org

Tel: (+92 51) 920-7140

Web: www.paspk.org

Meeting of Pakistani IAS & PAS Fellows with Dr. Abdullah Al-Musa, Director General, IAS Jordan at the Branch Office of Islamic World Academy of Sciences (IAS) in the Pakistan Academy of Sciences (PAS), Islamabad March 25, 2022



Dr. Abdullah Al-Musa, Director General, Islamic World Academy of Sciences (IAS), Jordan visited the office of IAS located at the Pakistan Academy of Sciences (PAS), Islamabad on March 25, 2022 during the meeting of the officials of COMSTECH S&T Steering Committee in Islamabad. The objective of the visit was to have a meeting with the Pakistani IAS Fellow to discuss some possible avenues for scientific collaboration between IAS and PAS. The meeting was attended by D.G. IAS, IAS Fellows namely, Dr. M. D. Shami (Founding Fellow, IAS & Fellow, PAS), Dr. Noor Muhammad Butt (Vice President, IAS & Fellow, PAS), Dr. Zabta Khan Shinwari (Fellow IAS & PAS) as well as officials of PAS namely, Dr. Tasawar Hayat, Secretary General, PAS, and Dr. Riffat M. Qureshi, Director Administration, PAS.

Dr. N. M. Butt, Vice President of IAS welcomed Dr. Abdullah Al-Musa, D.G. IAS. Subsequently, Dr. M. D. Shami, the senior most Pakistani IAS Fellow presented some memoirs of the early times of IAS. Dr. Abdullah Al-Musa remarked that the Islamic World has almost the same culture. Late General Zia-ul-Haq, the former President of Pakistan, and the Prince El Hassan bin Talal of Jordan patronized the scientific activities of IAS. Prince Hasan has great affection for Pakistan. D.G. IAS suggested forming some sort of consortium for collaboration through the making of think tanks and some groups of specific disciplines like nanotechnology, biotechnology, biodiversity, etc. The aim is to get research on one platform together. It is time to write proposals for innovative research and to publish the innovative outputs. He mentioned that Pakistan is very much eligible to follow this pursuit of IAS. He also informed that the Rabat Conference is postponed and the IAS has submitted a research proposal to COMSTECH regarding "Vaccine Development in the OIC Countries". This year, the IAS intends to support organizational activities for one Conference in Karachi/Hyderabad (Pakistan). He appreciated Dr. M. Iqbal Choudhary, Coordinator General COMSTECH & Fellow PAS for winning the prestigious Mustafa (PBUH) Prize. He mentioned that it was a great opportunity for him to visit Pakistan and the scientific platforms like COMSTECH and PAS.

Following this, the participating IAS Fellows discussed the cooperative activities of IAS and PAS. Dr. Zabta Khan Shinwari mentioned that the Pakistan Academy of Sciences has been working in close collaboration with AASSA and UNESCO. In collaboration with AASSA, the PAS has organized a series of lectures and webinars in the Conference on COVID-19 Pandemic and related Issues. There is a need for interdisciplinary research for innovative outputs. Dr. Tasawar Hayat, Sec. General, PAS expressed his gratitude to DG IAS for sparing time out of his very busy schedule during the meeting of the officials of COMSTECH S&T Steering Committee in Islamabad to visit the Branch Office of IAS located inside the Secretariat of the Academy. He mentioned that PAS has great potential and it would collaborate and cooperate with IAS for the betterment of countries in the ambit of OIC. He mentioned that in terms of their aims and objectives, both the IAS and PAS have many goals in common towards strengthening science, technology, and innovation through the provision of interactive platforms for academicians, scientists, and technologists in the Islamic World to carry out cutting-edge research at the frontiers of S&T as per norms of productivity and originality. Both the academies facilitate the dissemination of the exchange of scientific knowledge and information through collaborative conduct of workshops, conferences, seminar programs, and MoUs, etc.



PAS has a great share in the achievements of IAS since its inception and PAS still stands by the IAS. We certainly acknowledge the contributions of our seniors like Dr. A.Q. Khan, Dr. M.D. Shami, Dr. Atta ur Rahman, and others who have supported PAS & IAS to the level where we stand now. It is now our time to mutually contribute to the platform of both the Academies through the involvement of young scientists. PAS has many active and productive MoUs with China, TWAS, ANSO, etc.

The meeting was concluded with the Vote of Thanks by Dr. Tasawar Hayat, Secretary General, Pakistan Academy of Sciences. Dr. M. D. Shami presented souvenirs to the guests.



Vice Chancellor Health Services Academy, Prof. Dr. Shahzad Ali Khan visited Pakistan Academy of Sciences (PAS)

Prof. Dr. Shahzad Ali Khan (Vice Chancellor Health Services Academy), visited the Pakistan Academy of Sciences (PAS) and met the Secretary General Prof. Dr. Tasawar Hayat. Matters pertaining public health sciences were discussed during the meeting.



PAS AI Lecture Series

4th Talk on "High Performance Computing (HPC) and its Utilization on Deep Learning Models" February 03, 2022

In continuation of the PAS AI Lecture Series, the Pakistan Academy of Sciences (PAS) in collaboration with Quaid-i-Azam University, Islamabad organized a 4th Talk on "High-Performance Computing (HPC) and its Utilization on Deep Learning Models" on February 03, 2022. Dr. Masroor Hussain (Associate Professor at GIK Institute, Topi, KP) was invited as a Guest Speaker. Prof. Dr. Khalid Mahmood Khan (President, PAS) and Prof. Dr. Tasawar Hayat (Secretary General, PAS) thanked the participants for showing interest in attending the lecture. Fellows and Members of the PAS also participated in the lecture.



5th Talk on "Artificial Intelligence in Health Care – Solutions, Risks, Threats and Challenges" February 17, 2022

Pakistan Academy of Sciences (PAS) in collaboration with Quaid-i-Azam University, Islamabad organized a 5th Talk on "Artificial Intelligence in Health Care – Solutions, Risks, Threats and Challenges" on February 17, 2022. Dr. Farhan Khan (Head of the AI Program at GIK Institute, Topi, KP) was invited as a Guest Speaker. His research interests are in the areas of Artificial Intelligence for health and industrial informatics, wireless communication and signal processing and privacy preserving machine learning. His talk focused on the applications of AI in healthcare and what are risks, threats, challenges and solutions. Fellows and Members of the PAS also participated in the lecture.

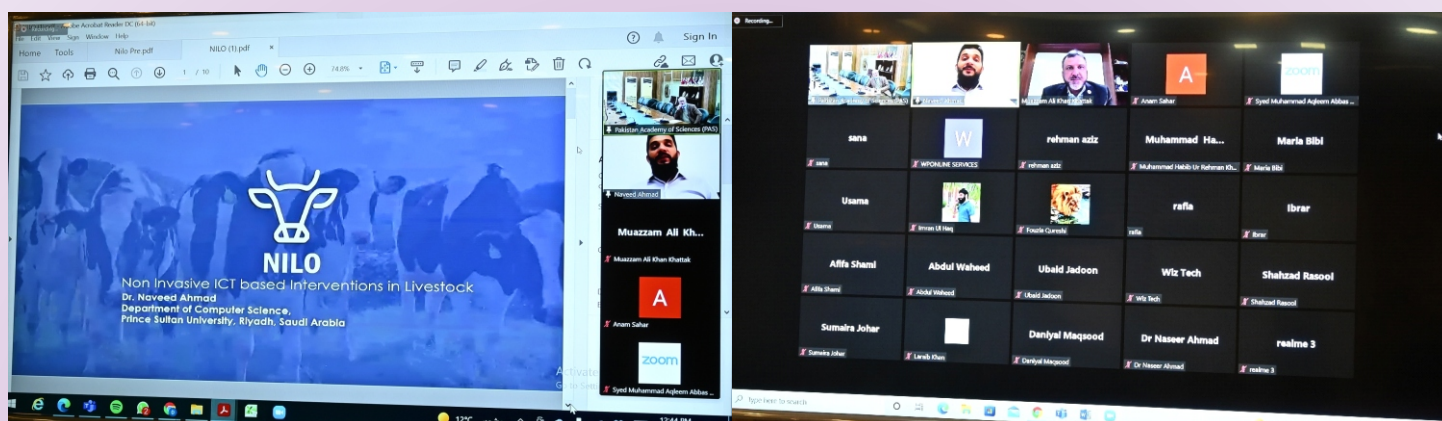


6th Talk on "Non Invasive ICT Based Interventions in Livestock (NILO)"

March 10, 2022

Pakistan Academy of Sciences (PAS) in collaboration with Quaid-i-Azam University, Islamabad a 6th Talk "Non-Invasive ICT based Interventions in Livestock (NILO)" on March 10, 2022. Dr. Naveed Ahmad was invited as a Guest Speaker, working as an Associate Professor, Prince Sultan University, Saudi Arabia.

His research focused on cyber security, privacy, blockchain technology, and intelligent transport system. Fellows, Members of the PAS, renowned scientists and researchers from academia also participated in the lecture.



PAS Lecture Series on Climate Change and Environmental Sciences

Pakistan Academy of Sciences organized an online lecture series on Climate Change and Environmental Sciences. Internationally and nationally renowned scientists and researchers from academia and relevant governmental organizations were invited as

Resource Persons. The lecture series is facilitated by a Member of the Academy, Dr. Muhammad Zaffar Hashmi (Assistant Professor, COMSATS University, Islamabad).

Lecture 1: "Building Climate Resilience in Agriculture"

February 02, 2022

Dr. Wajid Nasim Jatoti from Islamia University Bahawalpur was invited as a Guest Speaker. He delivered a talk on "Building Climate Resilience in Agriculture" on February 02, 2022. His talk focused on the objective to build the climate resilience in agriculture sector so that we can mitigate and adapt to climate change impacts and can get maximum agricultural productivity to ensure food security. Any climate change would eventually disturb agricultural practices. So, it becomes crucial to adopt Climate-

Resilient Agriculture (CRA) practices at such a scale so that the disturbing impact of climate change on the agriculture sector could be minimized. Adapting and building resilience to climate change means increasing agricultural productivity, farm profitability, and net income and reducing GHGs emissions. A number of strategies can be adopted to achieve sustainable growth in crop production, horticultural crops, livestock, fisheries, and forest under changing climate scenarios.



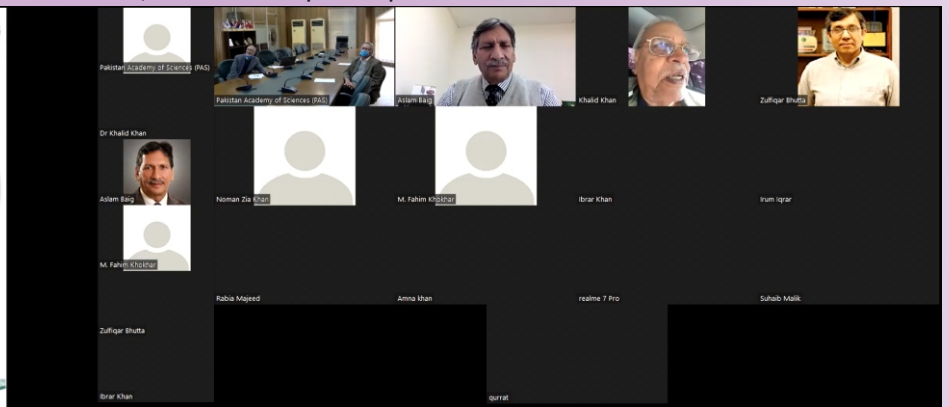
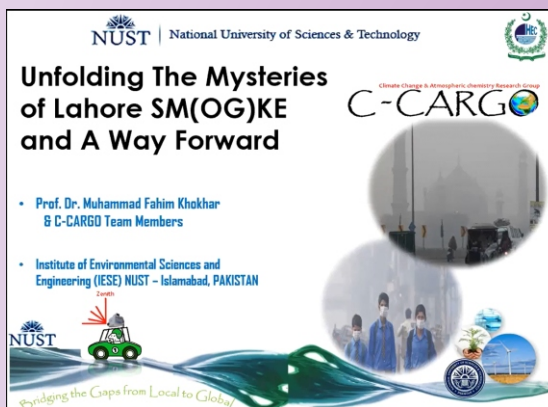
Lecture 2: "Unfolding the Mysteries of Lahore Smog and a Way Forward"

February 10, 2022

Prof. Dr. Fahim Khokhar working as Head of Department at the Institute of Environmental Science and Engineering- National University of Science and Technology (IESE-NUST) Islamabad, Pakistan was invited as a Guest Speaker. He delivered a talk on "Unfolding the Mysteries of Lahore Smog and a Way Forward" on February 10, 2022. In his lecture, he focused on Global Air Quality and Pakistan. Pakistan's major cities is worsening at a higher rate as a result of rapid urbanization and the growth of road transport. Usually, urban smog is caused when favorable conditions like higher moisture content and lower temperature results in fog and are mixed with smoke. The sources of air pollutants in Lahore are motor vehicles and medium and small-scale industries. But,

in this particular case, the onset of smog was observed during the first week of November, very unusual to be winter fog. However, this smog event is believed to be caused by the burning of crop residue (rice paddies) in the Indian part of Punjab. Smoke from the massive crop residue burning has caused the onset and prevalence of smog not only in Lahore but throughout Punjab province on both sides of the international border.

In the end, Prof. Dr. Khalid Mahmood Khan (President PAS) appreciated the Speaker for his thoughtful and informative lecture. Fellows, Members of the PAS, renowned scientists, and researchers from academia also participated in the lecture.

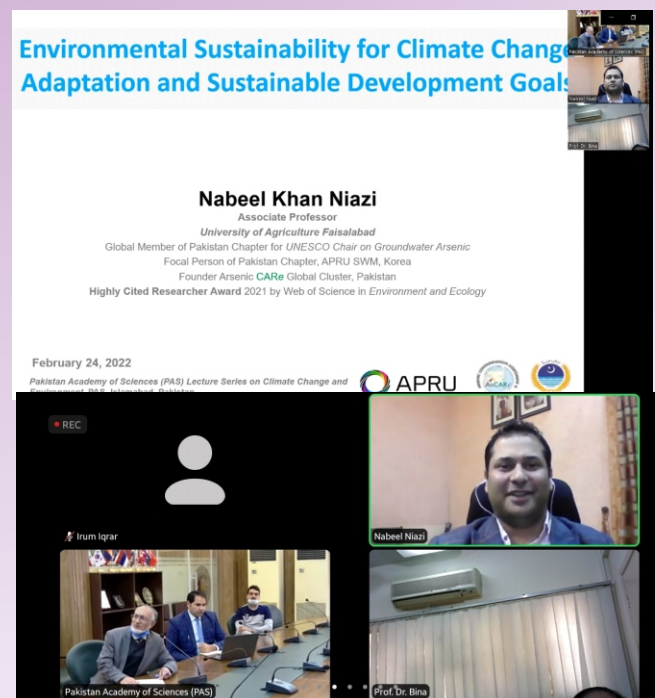


Lecture 3: Environmental Sustainability for Climate Change Adaptation and Sustainable Development Goals

February 24, 2022

Pakistan Academy of Sciences organized an online 3rd talk on "Environmental Sustainability for Climate Change Adaptation and Sustainable Development Goals" on February 24, 2022. The invited speaker was Dr. Nabeel Khan Niazi working as an Associate Professor at the Institute of Soil and Environmental Sciences (ISES), University of Agriculture Faisalabad.

His lecture focused on Environmental Sustainability for Climate Change Adaptation and Sustainable Development Goals to meet the needs of the present without compromising the ability of future generations to meet their needs. Fellows, Members of the PAS, renowned scientists, and researchers from academia also participated in the lecture.



Lecture 4: "Climate of Pakistan: Updates and Implications"

March 17, 2022

Pakistan Academy of Sciences organized an online 4th talk on "Climate of Pakistan: Updates and Implications" on March 17, 2022. The invited Speaker was Prof. Dr. Athar Hussain, Professor at the Department of Meteorology and Head Centre for Climate Research and Development, COMSATS University, Islamabad. His research interests include geo-informatics, and global and local climate change diagnosis and attributions. Fellows, and Members of the PAS also participated in the lecture.



21st Science Council of Asia Conference

Theme: Science, Technology & Social Science Research:

Together for a Better World

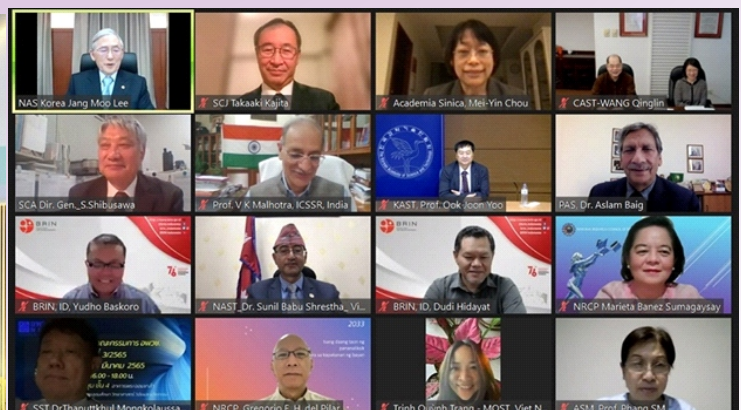
March 15-17, 2022

The Indian Council of Social Science Research (ICSSR) hosted the 21st Science Council of Asia (SCA) Conference. The 21st Science of Asia Conference was held online from 15-17 March 2022, the main theme of the conference was "Science, Technology & Social Science Research: Together for a Better World". Prof. Dr. M. Aslam Baig, Ex -Secretary General, Pakistan Academy of Sciences participated in the Conference. The SCA is an international scientific organization founded in 2000 by Asian science academies and other national scientific and social science organizations. The founding countries of SCA are India, Indonesia, Japan, Republic of Korea, Malaysia, the Philippines, Singapore, Thailand, China and Vietnam. The annual SCA conference is held on a rotational basis so that each member country/region can actively participate in and contribute to the SCA. The Science Council of Asia brings together scientists and scientific organizations from all academic fields, including the

cultural and social sciences as well as the natural sciences and technology, to achieve the following aims:

1. To exchange information among Asian countries on the current status of science;
2. To promote collaboration and cooperation in a wide range of fields in the sciences in the Asian region;
3. To deepen understanding and trust among scientists in Asia.

There were about 600 participants from sixteen countries and regions. The 21st SCA Conference provided scientists in Asia and other regions with opportunities to enhance interdisciplinary networks which can be beneficial to addressing, discussing, and advocating critical issues by drawing upon collective wisdom.



The 21st SCA Conference conducted a series of meetings including the International Symposium consisting of an Opening ceremony, 8 Parallel Sessions, and a panel discussion, each with 3 to 7 oral presentations, and 2-5 poster sessions with approximately 41 posters, a Closing ceremony, and SCA's Management Board Meeting. The future host countries/regions of the 22nd and 23rd and 24th SCA Conference were approved. The next conference is scheduled for October 2023 in Seoul, Republic of Korea. Pakistan will host the 24th SCA conference in 2025.

In the SCA Management Board Meeting, new officers were approved from 15th March 2022 – 2023. Prof. Dr. M. Aslam Baig, Ex -Secretary General, Pakistan Academy of Sciences elected as President-Elect for 2022-2023.



Islamic World Academy of Sciences (IAS) & Pakistan Academy of Sciences (PAS) Webinar Series on Climate Change

Session 2: Ethics: Ensuring Food Security in the Era of Climate Change February 26, 2022



Prof. Dr. Zabta Khan Shinwari was the Speaker of Session 2 of the Webinar Series on Climate Change jointly organized by the Islamic World Academy of Sciences (IAS) & Pakistan Academy of Sciences (PAS). He delivered a talk on the topic Ethics: Ensuring Food Security in the Era of Climate Change on February 26, 2022. In his talk, he covered the topics such as global policy options for food security; and existing policy frameworks by the government of Pakistan and

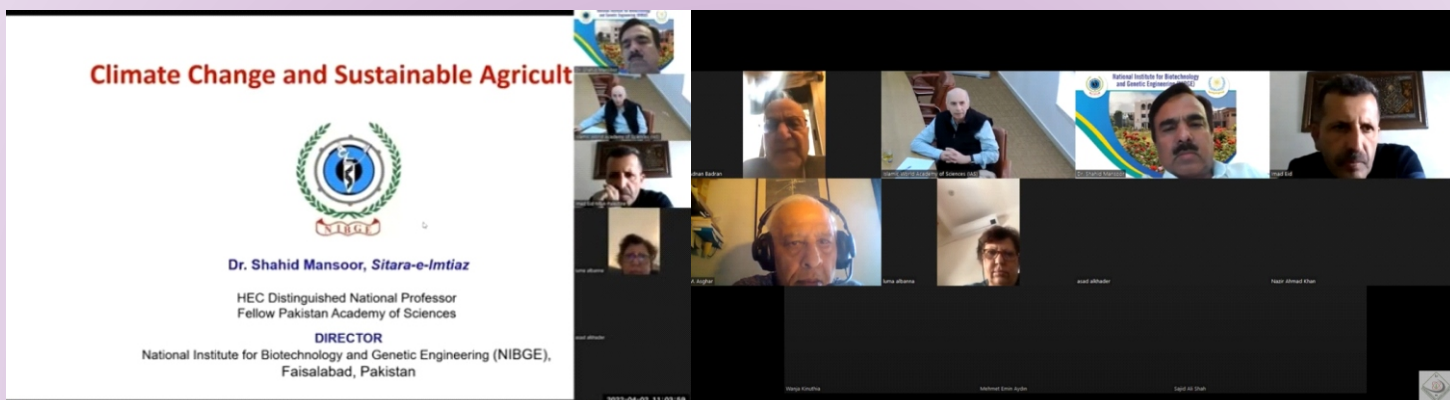
national bodies or organizations working for the cause of biosafety, and biosecurity in the country. The ethical need to establish effective strategies related to the country's preparedness to tackle issues like climate change, poverty, and food security is emphasized. Prof. Dr. Tasawar Hayat, Secretary General PAS, and other fellows also participated in the webinar.

Session 3: Climate Change and Sustainable Agriculture

April 2, 2022

Prof. Dr. Shahid Mansoor (Director, National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, Pakistan & Fellow PAS) was the Speaker of the Session 3. He delivered a talk on the topic “Climate Change and Sustainable Agriculture” on April 2, 2022. The talk covered the concept of climate-smart agriculture by adopting technologies which decrease the environmental footprint of agriculture and enhance efficiency in the use of inputs such as water, chemical fertilizers and

pesticides. As, Agriculture is the key to food and nutritional security. The increase in population and climate change scenario pose a dual challenge in the developing world. The climate change is resulting in extreme temperatures, and change in rain pattern that is disturbing cropping pattern and sustainability. Examples of the use of genomic selection and genome editing in enhancing genetic gain in crops and livestock were also discussed.



Session 4: How Green is Renewable Energy

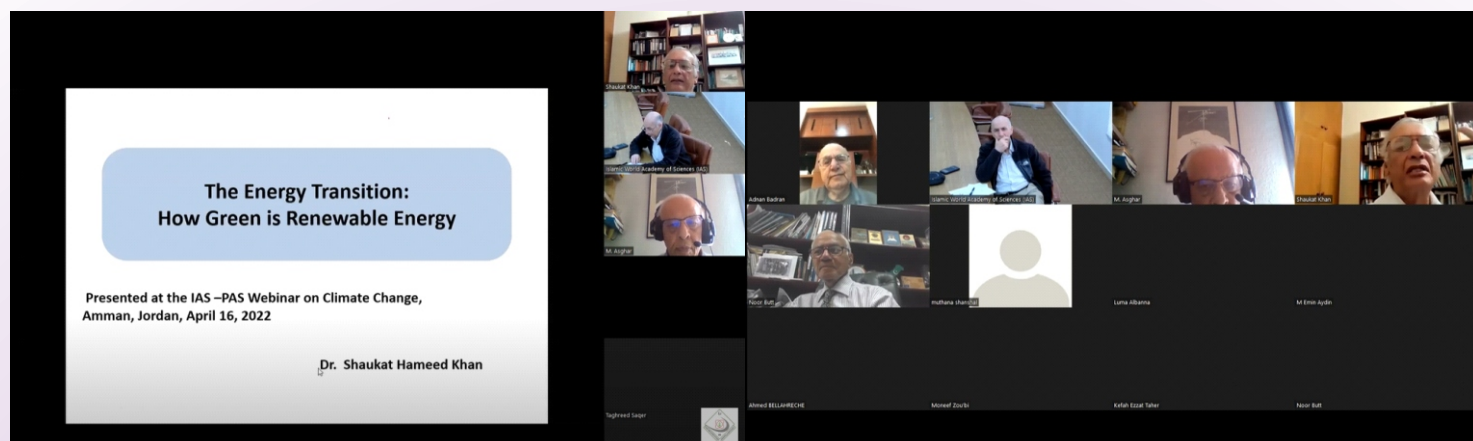
April 16, 2022

Dr. Shaukat Hameed Khan (Fellow PAS) was the Speaker of the Session 4. He delivered a talk on the topic “**The Energy Transition: How Green is Renewable Energy**” on April 16, 2022. Here's a quick summary of his talk about the energy mix and its projections, trends and costs, and the severity of end-of-life impact of renewable energy (RE) systems was also discussed. RE is the major part of the energy transition all over the world. This is desirable and necessary to mitigate the climate change and one of the biggest sources of energy generation.

exceptions. However, the impact of this runaway expansion and consumption is climate change and the degradation of the environment. The energy mix is changing everywhere, and renewable energy (RE) presents new opportunities and challenges in the context of global warming caused by anthropogenic emissions of greenhouse gases, which necessitates steps for their mitigation and reversal. Solar and wind energy, coupled with storage are witnessing lower costs driven by technologies and higher efficiencies.

Modern economies are built upon access to cheap, carbon-based energy resources. A major electrification of societies has been underway during the last 30 years, and its production is expected to further double by 2050. The goal everywhere is access to affordable and available power- now, and in the future. The emerging economies are no

The energy mix is changing everywhere, and renewable energy (RE) presents new opportunities and challenges in the context of global warming caused by anthropogenic emissions of greenhouse gases, which necessitates steps for their mitigation and reversal. Solar and wind energy, coupled with storage are witnessing lower costs driven by technologies and higher efficiencies.



Fossil fuels are not going anywhere soon, even when they are faced with volatility and drawdown. While some countries started retreating from nuclear power after Fukushima, there has been a revival of sorts in this sector. There are growing concerns however that RE also suffers from several serious negative impacts on the environment, which have been ignored. These not only include increasing use of land and water, but also the end-of-life waste management of RE products. While the Paris Agreement stated that “the

world must achieve greenhouse gas neutrality sometime in the second half of the century”, it is felt that there is no single solution for reduction of greenhouse gas emissions, and limiting the global temperature rise to 1.5° C while desirable, may remain only a wish list. In its most recent report on mitigation (2022), the global panel on climate change, IPCC, has not been able to offer any real hope for mitigation of climate change.

International Conference on Climate Change: Impacts and Responses March 8-9, 2022

International Conference on “Climate Change: Impacts and Responses” was organized by Society of Economic Geologists & Mineral Technologists (SEGMITE), Department of Geology, University of Karachi, Pakistan Council of Research in Water Resources (PCRWR), and Pakistan Science Foundation (PSF) in collaboration with Pakistan Metrological Department (PMD) at the University of Karachi on March 8-9, 2022. Prof. Dr. M. Qasim Jan (Former President, PAS) was the chief Guest at the event. Prof. Jan also delivered invited talk on "Climate Change: A man-made crisis requiring global mitigation efforts for ensuring food security and sustainable development".

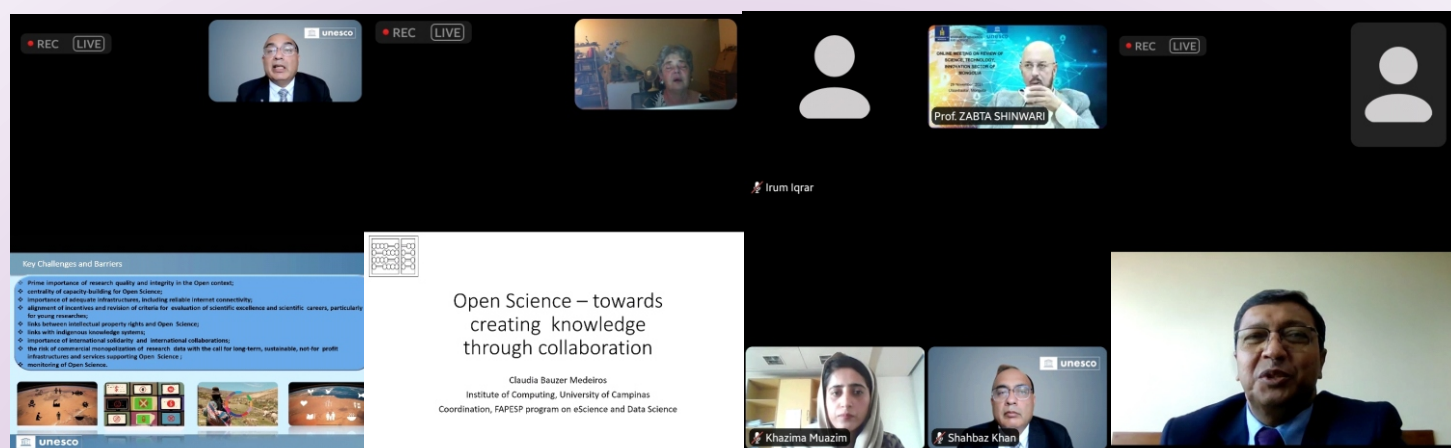
options by reducing emissions of greenhouse gases, increasing renewable energy generation, and controlling environmental degradation. Forty-five papers were presented in the conference out of which thirty-seven papers were presented from various academia's, research and development organizations, policy makers all over the Pakistan and eight were presented online from USA, Bangladesh, Nepal, Sri Lanka, Turkey and Iran. Good governance for implementing environmental laws, behavioral transformation, and public awareness are necessary steps for promoting environmental sustainability in the world by 2030.

A two-day International Conference on Climate Change aimed to provide an opportunity to researchers, scientists, and technologists from academia and industry, and representatives from the regulatory departments, national/international NGOs to share their research work and exchange knowledge about climate change mitigation and adaptation



COMSTech – UNESCO Webinar on Open Science

March 10, 2022



COMSTech in collaboration with UNESCO organized a Webinar on open science on March 10, 2022. Prof. Dr. Shahbaz Khan (Director and Representative UNESCO Beijing Office & Foreign Fellow PAS), Prof. Dr. Zabta Khan Shinwari (Fellow PAS & Professor Emeritus, QAU) and Prof. Dr. Claudia Bauzer Medeiros, Institute of Computing, University of Campinas, Brazil were the guest speakers of the webinar.

Prof. Dr. Shahbaz Khan delivered a talk on UNESCO Recommendations on Open Science. He said that Open Science could help science unleash its full potential and take up the challenges facing our contemporary societies. 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 exists a scientific and digital divide in the world. Prof. Shahbaz mentioned that to achieve 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. It is about knowledge being openly available, accessible, and reusable.

Prof. Zabta Shinwari delivered a talk on Science and equality. He said that 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 for a comprehensive policy of inclusiveness, funding, infrastructure, and incentives. He said that all scientists are responsible to society and emphasized that the work of scientists must benefit society.

Prof. Dr. Claudia Bauzer Medeiros delivered a talk on Open Science-towards creating knowledge through collaboration. She said that we can do a lot to open science by 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.

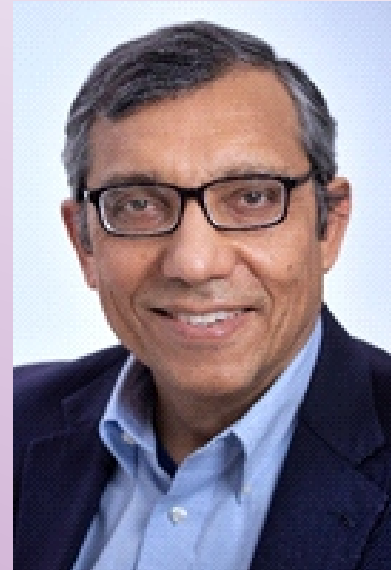
Prof. Dr. Iqbal Choudhary (Coordinator General COMSTech & Fellow PAS), gave closing remarks and said that COMSTech is striving to gather people from different countries by conducting such webinars to build scientific capacity. He said we are proud to have a partnership with UNESCO. Further, he stated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

Prof. Dr. Zulfiqar Ahmed Bhutta *FRS* (Fellow PAS): Global Leader in Maternal and Newborn Health

Prof. Dr. Zulfiqar A. Bhutta *FRS* is a Fellow of the Pakistan Academy of Sciences, Distinguished University Professor, and Founding Director of the Institute for Global Health and Development and the Centre of Excellence in Women and Child Health, at the Aga Khan University. He also holds the Robert Harding Inaugural Chair in Global Child Health at the Hospital for Sick Children, Toronto, and is the Ibn-Sina Scholar in Global Child Health, unique joint appointments with AKU. The last 12 months have seen several notable global recognitions for Prof. Bhutta.

Recently, Prof. Dr. Zulfiqar Bhutta, *FRS* was ranked among the top 100 scientists in medicine in the first edition of the top scientists ranking for medicine published by Research.com, one of the major knowledge centres for medicine research.

Further, Prof. Zulfiqar Bhutta was presented the **“John Dirks Canada Gairdner Global Health Award”** for outstanding achievements in global health research in April 2022. The Award recognizes some of the world's most significant biomedical and global health research. The Gairdner Awards are widely regarded as Canada's most prestigious prizes for medical science and the Global Health Award, is one of the highest awards in this discipline worldwide. The Gairdner Foundation annually honours laureates for their contributions to the world's most significant biomedical and global health research and discoveries. In addition to five international awards, one award is for scientific leadership in Canada and the global health award goes to a scientist whose advances have a significant impact on health outcomes in the developing world. The Award recognized Dr. Bhutta for his work on the development and evaluation of evidence-based interventions in child and maternal health for marginalized populations focusing on outcomes for the essential 'first thousand days of life covering pregnancy, childbirth, and the developmental phases in the first two years of life.



Most recently, Prof Bhutta was awarded the American Society of Nutrition Robert and Leslie Suskind Lifetime Achievement Award 2022 for contributions to international nutrition.

He has received several leading awards in global health during his career spanning almost four decades, including the Sam Fomon Award of the American Academy of Pediatrics for lifetime achievements in Nutrition (2015), the WHO Family Health prize (2014), the TUBA Science Award (2015), the McKinsey Global Health award (2015) and the TWAS Science Award in Medical Sciences (2017). He was also recognized by the Senate of Canada with its Canada 150 Medal for contributions to Global Child Health. Dr. Bhutta was admitted to the US National Academy of Medicine in October 2018, the highest academic and scientific platform in North America. He was a member of the Prime Minister's Task Force for Health since its inception in 2018 and Chairs the Board of Governors of the National Institutes of Health, Pakistan, and the Health Sciences & Allied disciplines panel of the Higher Education Commission Pakistan. He was elected as a Fellow of the Royal Society, the oldest science body in the UK in 2020.

Prof. Dr. Asghari Maqsood (FPAS) Awarded with the “Vice Chancellor's Commendation Certificate and a Cash Award”

Air Marshal Javaid Ahmed, Hi (M) (Retd), awarded the “Vice Chancellor's commendation certificate” and a cash award of Rs. 100,000/- to "Prof. Dr. Asghari Maqsood" for her outstanding achievements in the 9th Air University Convocation. She has been a Professor of Physics since 2014 at Air University Islamabad. Dr. Asghari Maqsood has been the Founding Dean of the Faculty of Basic and Applied Sciences, a Professor Emeritus, Acting Dean of the Faculty of Graduate Studies, and Advisor to the Vice-Chancellor. She received awards from the Pakistan Council for Science and Technology for Research Productivity in 2015. She is also the recipient of the Productive Scientists of Pakistan Awards and the Quaid-i-Azam University Golden Jubilee Shield in 2017. She has also been selected as one of the Top 2% Scientists in the World by Stanford



Pakistan Academy of Sciences congratulates Prof. Dr. Asghari Maqsood for outstanding achievements.

Prof. Dr. Sohail Nadeem (FPAS) Honored with the Prestigious International Obada Prize 2022

Prof. Dr. Sohail Nadeem (Fellow PAS) is a Professor of Mathematics at Quaid-i-Azam University, Pakistan has been honored with the prestigious International Obada Prize for his outstanding research and scholarly contribution. Obada-Prize is an international award, endowed by the Natural Sciences Publishing supported by the African Academy of Sciences (North Africa Branch). This prize was initiated as a recognition of his excellence Professor Abdel-Shafy Obada. The Obada-Prize recognizes and encourages innovative and interdisciplinary research that cuts across traditional boundaries and paradigms. It aims to foster universal values of excellence, creativity, justice, democracy, and progress and to promote the scientific, technological, and humanistic achievements that advance and improve our world. He has published more than 600 research papers in international journals. His impact factor is greater than 2000 and are over 20000 citations. He has received many national and international awards.



Pakistan Academy of Sciences congratulates Prof. Dr. Sohail Nadeem for winning the prestigious International Obada Prize 2022.

Seminar on “NEPRA's Role in Pakistan's Power Sector”

Mr. Tauseef H. Farooqi, Chairman of NEPRA visited GIK and addressed the Seminar on “NEPRA's Role in Pakistan's Power Sector”. Tauseef H. Farooqi, Chairman, National Electric Power Regulatory Authority (NEPRA), agreed to establish collaboration with Ghulam Ishaq Khan Institute of Engineering Sciences and Technology to benefit from its faculty research and professional know-how. He held a meeting with Prof. Dr. Fazal Ahmad Khalid (Rector, GIK Institute & Secretary Lahore Chapter, PAS). Prof. Dr. Wasim A Khan, Pro-Rector Academics, deans, directors also attended the meeting. Later, Farooqi addressed the students as well, where he stressed upon the need to increasing industry-

academia collaboration, and it should be made mandatory.



Book entitled “Biodiversity, Conservation and Sustainability in Asia: Prospects and Challenges in South and Middle Asia” edited by Dr. Münir Öztürk (Foreign FPAS) & Dr. Shujaul Mulk Khan (Member, PAS)

The book “Biodiversity, Conservation and Sustainability in Asia: Prospects and Challenges in South and Middle Asia” has been edited by **Münir Öztürk (Foreign Fellow, PAS)**, **Shujaul Mulk Khan (Member, PAS)**, Volkan Altay, Recep Efe, Dिल्фуза Egamberdieva, Furkat O. Khassanov. This volume is dedicated to our late Fellow **Prof. Dr. M. Ajmal Khan**. The present book has been edited with the prime aim to have a representation of biodiversity from the region to get a broader overview, which will serve as one of the baselines for future conservation strategies. “South Asia” is the southern division of the Asian continent, comprising the Sub-Himalayan Range and adjoining countries to the west and east, dominated topographically by the Indian Plate, which rises above sea level in the northern parts of India, south of the Himalayas and the Hindu Kush. There are chapters that explore new applications as well as approaches to overcome problems associated with climate change. Much of the research and analyses are presented here for the first time. This work is a valuable resource for professionals and researchers working in the fields of plant diversity and vegetation, animal diversity and animal populations, and geo-diversity and sustainable land use, among others.

This book also focuses on;

1. Critical review on habitat fragmentation and its effects on biodiversity and species vulnerability
2. Special focus on high valued species facing extinction as ecosystem stability is based on interdependence among constituent species
3. Identifies research gaps in climate change and highlights the possible consequences on plant and animal species

