

# Newsletter

## PAKISTAN ACADEMY OF SCIENCES

*Promoting Science, Technology and Innovation for Socio-economic Development*

### General Body (GB) Meeting of Pakistan Academy of Sciences & Eid Get-Together June 15, 2019

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The Special General Body Meeting of the Pakistan Academy of Sciences (PAS) clubbed with Eid Get-together was held on June 15, 2019 at the PAS Secretariat, Islamabad. Prof. Dr. M. Aslam Baig, Secretary General, Pakistan Academy of Sciences steered the discussion matters as per prescribed agenda items of the GB meeting. He mentioned that this meeting was called to address matters of immediate concerns to the Academy such as related to: 1) Budget estimation, 2) Rules of election of PAS Fellows, 3) submission of PC-1s at Planning Commission, and, 4) Matters related to inclusion of social sciences in the PAS and induction of Fellows.

The meeting was attended by both the PAS Fellows and PAS Members. In his welcome address, Prof. Dr. M. Qasim Jan, President, Pakistan Academy of Sciences, thanked the PAS Fellows and Members for gracing the occasion with their presence and for sparing time to attend the Meeting and Eid Get-together. He informed that for the first time in the history of Pakistan Academy of Sciences, the PAS Members were invited to attend the GB Meeting and applauded their participation. Before discussion on agenda items, the meeting participants offered Fatiha and Condolence for the departed souls of Fellows of the Academy, namely, Prof. Dr. M. Ajmal Khan (Former Vice President, PAS), Dr. M. Yousaf Hasan Bangash (Foreign Fellow, PAS) and Mr. Javed Iqbal (Former PS to President and Secretary General, PAS). Following this, there were vibrant discussions on various agenda items. The meeting appreciated the work done by the Academy for compilation and submission of the PC-Is on "Up gradation and Capacity Building of Pakistan Academy of Sciences (Natural and Social Sciences)" and "Strengthening of International Collaboration of Pakistan Academy of Sciences" to the Planning Commission, Government of Pakistan.

The Secretary General, PAS thanked all the Fellows and the Members of the Academy for their active participation in the deliberations on the agenda items. He extended Eid Greetings one more time and invited them all for the Eid Lunch and get-together.

## Visit of Chinese Academy of Sciences (CAS) Delegation to Pakistan Academy of Sciences (May 20, 2019)

A nine member delegation of the Chinese Academy of Sciences (CAS) lead by Dr. Yaping ZHANG, Deputy President CAS visited the Pakistan Academy of Sciences (PAS) on May 20, 2019 and held a meeting with Officials and Fellows of the Academy in the PAS Committee Room. Prof. Dr. M. Qasim Jan, President PAS welcomed the CAS delegation with pleasure. The meeting discussed three collaborative aspects between China and Pakistan: (1) Establishment of China–Pakistan Joint Research Centre on Earth Sciences;

(2) Joint projects and research activities between China and other countries (including Pakistan) in the region as initiated by Association of International Science Organizations (ANSO) in the Belt and Road region; and (3) Education Support to Pakistani Students in China. The Deputy President, CAS expressed that the cooperation for Science and Technology Initiatives (STI) is one of the most important aspect of bilateral relations between China and Pakistan.



## Introductory Seminar on China Pakistan Network on Science Popularization-CPNSP (July 8, 2019)

The Technology Times, Islamabad and the Pakistan Academy of Sciences (PAS) jointly organized an introductory seminar on “China Pakistan Network on Science Popularization (CPNSP)” on July 8, 2019, at the PAS Auditorium, Islamabad. This event aimed at dissemination of information related to networking of scientific and technological organizations and universities across the Belt & Road route with the objective to encouraging science popularization and science communication in promoting collaboration and cooperation between China and Pakistan. The seminar was attended by some 120 participants including experts, scientists, engineers, and postgraduate research students from different scientific organizations, academia, and media houses. Mr. Jia Wee, First Secretary

(Science and Technology), at the Embassy of Peoples Republic of China in Pakistan inaugurated the seminar. Speaking at the occasion, he appreciated the efforts of Technology Times and Pakistan Academy of Sciences for enhancing China Pakistan relations for science popularization. Earlier, Prof. Dr. M. Qasim Jan, President PAS welcomed the event participants. The seminar developed a consensus that the better public understanding of science can be a major element in promoting national prosperity, in raising the quality of public and private decision-making and in enriching the life of the individual. The event was concluded by Prof. Dr. I.E. Qureshi, former Executive Director COMSATS.



## International Conference on Silk-road Disaster Risk Reduction (SiDRR) and Sustainable Development (May 11-12, 2019)

Prof. Dr. M. Qasim Jan, President Pakistan Academy of Sciences (PAS) participated in the International Conference on Silk-road Disaster Risk Reduction and Sustainable Development (SiDRR) held in Beijing, China from May 11-12, 2019. More than 780 experts and scholars from over 40 countries and regions attend this conference and exchanged ideas on how to make the areas along the Silk Road more sustainable and disaster-proofing. Prof. Dr. M. Qasim Jan, President PAS was also elected as Member of the Governing Board of SiDRR. Prof. Dr. Chunli Bai, President of Chinese Academy of Sciences, talked about the effect of various natural disasters that have resulted in massive loss of life and economic damage in the areas along the Silk

Road. Prof. Dr. M. Qasim Jan, President PAS presented the Keynote address at the conference.



## First (1<sup>st</sup>) Working Group Meeting of Alliance of International Science Organizations (ANSO) (May 13-14, 2019) & Strategic Plan Drafting Workshop (May 15-17, 2019)

Alliance of International Science Organizations (ANSO) is a non-profit, non-governmental International Scientific organization founded in 2018 by the Chinese Academy of Sciences and 36 other International Science and Education Institutions around the world. Prof. Dr. M. Qasim Jan, President, PAS, Vice President ANSO and Prof. Dr. Zabta Khan Shinwari, Fellow PAS, Working Group Member, ANSO participated as core group members in the 1<sup>st</sup> Working Group Meeting of ANSO held from May 13-14, 2019 at Ya'ao International Hotel, Beijing. Following the 1<sup>st</sup> Working Group Meeting, Prof. Dr. M. Qasim Jan, President PAS and Prof. Dr. Zabta Khan Shinwari, Fellow PAS also attended the Strategic Plan Drafting Workshop, Chapter 3 (ANSO Action Plan 2020-

2022) of strategic Plan from May 15 - 17, 2019 at Beijing, China.



## Training and Research Workshops at Maju Makmur Mandiri Foundation Jakarta, Indonesia (June 21-30, 2019)

The Maju Makmur Mandiri (MMM) foundation in Jakarta host a research institute founded by Dr. Lie Tjung Jie in October 29, 2003. This foundation aims to facilitate the student & researcher in the area of Natural sciences especially applied laser technology and laser spectroscopy. The Research Center of the MMM foundation invited Prof. Dr. M. Aslam Baig, Secretary General PAS as International Expert in the annual training and research workshops on "Experimental Study on Self-Absorption in Laser-Induced Breakdown Spectroscopy for Different Elements" from June 21-30, 2019 at Jakarta, Indonesia. The foundation also supported the two Pakistani students, one from Azad Jammu Kashmir university (AJK) and the other from Mirpur university (AJK). The workshop extensively discussed the use of lasers for material analysis and quantification of constituent elements in materials. 25 participants from

different research centers and universities of Indonesia also participated in this training and research workshop. Prof. Dr. M. Aslam Baig (Sec. General, PAS) and Dr. Koo Hendrik Kurniawan (Director MMM foundation) distributed certificates of participation among the participant of the event.



## Participation of Prof. Dr. M. Aslam Baig (Sec. General, PAS) as Invited Speaker in the 12<sup>th</sup> International Symposium on Modern Optics and its Applications (July 1-4, 2019)

Prof. Dr. M. Aslam Baig, Secretary General PAS, participated as invited international speaker in the 12<sup>th</sup> International Symposium on Modern Optics & its Applications (ISMOA) held at Krida Wacana Christian University, Jakarta, Indonesia from July 1-4, 2019. In this symposium, Dr. Aslam Baig gave an invited talk on Elemental Analysis of Samples by Laser Induced Breakdown Spectroscopy and Laser Ablation Time of Flight Mass Spectrometry. This event was jointly organized by the Indonesian Optics and Society (IOS), the Department of Electrical Engineering, Faculty of

Engineering & Computer Science, Krida Wacana Christian University, Jakarta, Indonesia and International center for theoretical Physics (ICTP), Trieste Italy.

The aim of the event was to provide a scientific communication platform and interaction among regional scientists and International experts of Modern Optics. There were more than 200 participants from different universities & research institutions in Indonesia.



## Prof. Dr. Zabta Khan Shinwari (Fellow PAS) Elected as Vice Chairperson of the Bureau of the World Commission in the Ethics of Scientific Knowledge and Technology (COMEST) (July 5-6, 2019)

The World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) is an advisory body and forum of reflection set up by UNESCO in 1998. This Commission is composed of eighteen leading scholars including scientific, legal, philosophical, cultural and political disciplines from various regions of the world, international science programs and global science communities. Prof. Dr. Zabta Khan Shinwari (Fellow PAS) participated in the 11<sup>th</sup> Ordinary Session of the World Commission on the Ethics of Scientific Knowledge and

Technology (COMEST) held at Bangkok, Thailand from July 5-6, 2019 and presented case studies on Land Use of Pakistan: Challenges and Issues on July 3, 2019 at Bangkok. In recognition of his technical input on the important issues like; Climate Change, Water, Land use, Artificial Intelligence, Internet of things (IoT) and Geo Engineering of Climate, Prof. Dr. Zabta Khan Shinwari was awarded the UNESCO Avicenna Prize for Ethics in Science in 2015. During the 11<sup>th</sup> Ordinary Session, Prof. Dr. Zabta Khan was elected as a vice chairperson of Bureau of COMEST for a period of two years.



## **Prof. Dr. Fazal Ahmad Khalid (Fellow PAS) Appointed as Chairperson, Punjab Higher Education Commission, Lahore (June 2019)**

Prof. Dr. Fazal Ahmad Khalid, Fellow of Pakistan Academy of Sciences has been appointed as Chairperson of the Punjab Higher Education Commission (PHEC), Lahore in June 2019. Prof. Dr. Fazal Ahmad Khalid served as Pro-Rector and Dean at the Ghulam Ishaq Khan Institute (GIKI) of Engineering Science & Technology for twenty-one years from 1994-2014. He remained Vice Chancellor of the University of Engineering and Technology, Lahore in December 2014 and acting Vice Chancellor of the Punjab Tianjin University of Technology (PTUT) in 2018.

Prof. Dr. Fazal received his Postdoc Fellowships from the University of Oxford and University of Leeds, UK. His

research interests are in the field of Nanotechnology and Materials Engineering. He has published more than 200 research papers with accumulative impact factor of 121.



## **Prof. Dr. Atta - ur - Rahman, FRS (Fellow PAS) Received 7<sup>th</sup> Federation of Pakistan Chambers of Commerce & Industry (FPCCI) Achievement Award (July 25, 2019)**

Prof. Dr. Atta-ur-Rahman (FRS) received the 7<sup>th</sup> Federation of Pakistan Chambers of Commerce & Industry (FPCCI) Award for his remarkable contributions in science and technology. The achievement award was conferred by the President of Pakistan Dr. Arif Alvi on July 25, 2019, at Aiwan-e-Sadr, Islamabad.

FPCCI is an apex body representing trade industries in Pakistan. Every Year FPCCI organizes achievement awards ceremony in recognition of outstanding contributions in the development of different sectors of national economy.



## **Dr. M. Imran Arshad (Member, PAS) Attended the Conference on the Cooperation & Collaboration on Prevention and Control Animal Diseases at Hangzhou, China**

Dr. Muhammad Imran Arshad, Member Pakistan Academy of Sciences, participated in the "Conference on the Cooperation and Collaboration on Prevention and Control of Animal Diseases" from May 20-26, 2019 at Hangzhou, China. He represented the University of Agriculture, Faisalabad and the Pakistan Academy of Sciences at the conference. In this conference, a joint MoU was signed

between Pakistan and Chinese Research Centers for the development of "One Belt One Road" Joint Center for Animal Infectious Diseases Prevention and Control. In fact, China signed the this MoU with 15 countries participating in the conference. The purpose of this MoU is to strengthen future scientific collaboration, research development and capacity building between China and Pakistan.



## Chinese Research Center to be Named after Prof. Dr. Atta - ur - Rahman, *FRS* (Fellow PAS)

The leading university of Chinese Traditional Medicine (TCM) in Changsha, Hunan Province has decided to name its new Research Center after the Pakistan's renowned scientist & academician, Dr. Atta-ur-Rahman (*FRS*) entitled "Academician Professor Atta-ur-Rahman One Belt One Road TCM Research Center" in the grand opening ceremony of its 5<sup>th</sup> Annual Bio-Traditional Chinese Medicine International Conference scheduled on October 23, 2019 at Hunan, China. Mr. Fawad Hussain Chaudhry, Federal Minister for Science and Technology, Pakistan will join as a Guest of Honor on this special occasion. The News International (ISSN 1563-9479) published this announcement on Sunday July 28, 2019.

It can be accessed from:

<https://www.thenews.com.pk/print/504651-chinese-research-centre-to-be-named-after-dr-attaur-rahman>.

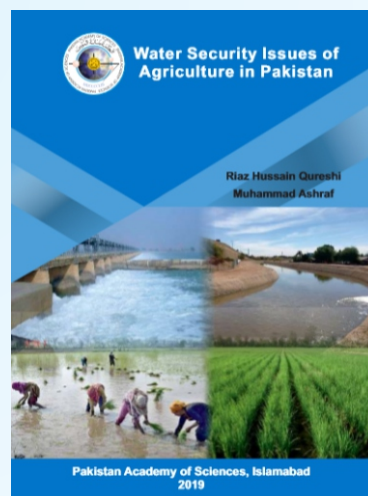
The largest University of Malaysia, Universiti Teknologi Mara (UITM) has already named a Research Center entitled "Atta-ur-Rahman Institute of Natural Product Discovery (AuRins)" in 2013.

Prof. Dr. Atta-ur-Rahman, (*FRS*) is currently serving as Chairman of the Prime Minister's Task Force on Science and Technology and the President of Network of Academies of Sciences of Islamic Countries (NASIC).

## Pakistan Academy of Sciences (PAS) Published a Report on Water Security Issues of Agriculture in Pakistan

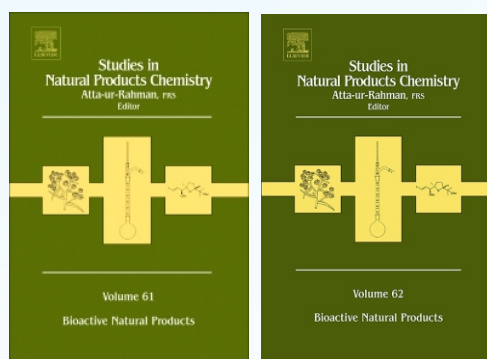
Pakistan is confronting several issues of national concern and the issue of growing water scarcity, specially the water security issues of agriculture is among the prime concerns at the moment. Prof. Dr. Riaz Hussain Qureshi, a soil scientist (Prof. Emeritus and former Vice Chancellor, University of Agriculture, Faisalabad) and Fellow of the Pakistan Academy of Sciences, and Dr. Muhammad Ashraf, an agricultural engineer (Director General and former Chairman, Pakistan Council of Research in Water Resources, Islamabad) have jointly compiled and published the book on "Water Security Issues of Agriculture in Pakistan" at the platform of the Academy. It provides a comprehensive overview of the status of water security issue in Pakistan and encompasses features such as water availability indicators, water quality, statistics of land and water use in Pakistan, water wastage at the field level, causes of water shortage and the way forward, misuse of water, key forces of climate change affecting the future of water security in the country, water storage situation and misconceptions about dams, dryland agriculture, implementation of national water policy-2018, solutions for a way forward to secure water for agriculture in Pakistan. The book

emphasizes the need for a closer alignment between water and agricultural policies and makes the case for immediate implementation of "no-regrets" strategies which have both positive development outcomes and make agricultural water supply systems resilient to future impacts. The book has been distributed among the relevant professionals, policy makers, stake holders and water managers for their perusal.



## Elsevier Sciences Published Books of Prof. Dr. Atta-ur-Rahman, *FRS*

Two books titled "Studies on Natural Product Chemistry" have been published by Elsevier Science Publishers (Volumes 61 and 62). The series was initiated under the editorship of Prof. Dr. Atta-ur Rahman, *FRS* 30 years ago and now has become the most comprehensive encyclopedic series which covers the chemistry and biological activities of natural products derived from terrestrial and marine organisms.



## **Obituary**

## **Prof. Dr. M. Ajmal Khan**

Prof. Dr. M. Ajmal Khan (S.I.), a versatile Botanist of Pakistan, Vice President of the Pakistan Academy of Sciences and the Vice Chancellor of University of Karachi breathed his last on May 04, 2019 in Karachi. As one of the most highly rewarded academician and scientist of Pakistan, Dr. Ajmal Khan has left behind a rich harvest of sweet memories and achievements as inspiration for all those who know him. Prof. Dr. M. Ajmal Khan joined Pakistan Academy of Sciences as Fellow in 2001. He served the Academy as Secretary: PAS Karachi Chapter from 2004-2007, as well as Vice President, PAS from 2018- May 2019. Dr. M. Ajmal Khan had a distinguished career in the field of Botany. His specific research interests included Seed Dormancy, Salt Tolerance, Demography of Salt Marsh and Salt Desert Species and Evaluation of Cash-crop Halophytes. Dr. M. Ajmal received prestigious civil awards, including: Sitara-i-Imtiaz in 2007 and the Presidential Award of Pride of Performance in 2001 in recognition of his outstanding contributions in the field of Botany, Ecological Management of Inter-tidal, Coastal and



Inland Saline Ecosystems. Other awards include Life Time Achievement Award by the Pakistan Botanical Society in 2016, Distinguished Scientist of the Year-2008 by the Pakistan Academy of Sciences, Gold Medal, Pakistan Academy of Sciences in 1999.

## **Obituary**

## **Dr. M. Yousaf Hasan Bangash**

Engr. Dr. M. Yousaf Hasan Bangash, a Foreign Fellow of the Pakistan Academy of Sciences breathed his last on June 10, 2019 in London, UK. While working abroad as one of the most highly rewarded and versatile engineer of Pakistan, Dr. Yousaf Hasan Bangash has left behind a rich fruitage of professional achievements as inspiration for all those who know him. He was well recognized for his distinguished contributions in the field of Aerospace Engineering, Software Development in Engineering Sciences, Explosion Dynamics. In recognition of his outstanding contributions, he received eleven Gold Medals including the 1999 Dr. F. L. Rahmam Medal from Chicago Consultants Inc. Throughout his professional career, Dr. Bangash held important positions including Defense Consultant, Aerospace-Naval Structures, UK Defense Department, London, 1991-1993; Professor of Aerospace Structures, Middlesex University, London, 1980-91; Group Consulting Engineer, Atomic Power Construction Ltd., Surrey, 1973-80; Consultant UKAEA, 1966; Consultant, Nuclear Aerospace Structures, British Aerospace, Surrey, 1966-1969; Reader, Aerospace Structures, Imperial College, London, 1966-73; Senior Lecturer, Aerospace Structures, University of Greenwich, London, 1963-65; Senior Manager, Nuclear



Construction, General Atomic Inc., San Diego, California, 1962-64; Senior Group Engineer, Lockheed International Inc., California, 1960-1962; Senior Lecturer in Structural Engineering, College of Engineering, University of Peshawar, 1957-59; Structural Design Engineer, US Core of Engineers, Kharian, 1954-56.

## Obituary

## Prof. Dr. Khairat M Ibne Rasa

Prof. Dr. Khairat M Ibne Rasa (S.I), a versatile Organic Chemist and one of the most highly rewarded academician and researcher of Pakistan, left us on July 06, 2019 at Lahore. He joined Pakistan Academy of Sciences (PAS) as Fellow in 1979 and served the Academy as Treasurer (PAS) from 2003-2005. Dr. Khairat Ibne Rasa earned his M.Sc. degree from Muslim University, Aligarh, India in 1949 and his Ph.D. degree from Brown University, Providence, R. I., USA in 1959. He enjoyed a distinguished career in the field of Organic Chemistry. During his service, he held prestigious positions such as: Vice Chancellor, Al-Khair University (AJK), 2000; Deputy Director General, Islamic Educational, Scientific and Cultural Organization (ISESCO), 1984-1991; Vice Chancellor, University of the Punjab, Lahore, 1976 to 1984; Vice Chancellor, Bahauddin Zakaria University, Multan, 1975-1976; Visiting Professor, Brown University, Providence, R. I., U.S.A., 1972-1975; In recognition of his academic and scientific achievements, Dr. Khairat received prestigious



awards, including: Sitara-i-Imtiaz (Govt. of Pakistan, 1978) as well as Iqbal Centenary Medal (Govt. of Pakistan, 1978); and Potter Prize, Brown University, USA, 1959.

## Obituary

## Prof. Dr. Viqar Uddin Ahmad

Prof. Dr. Viqar Uddin Ahmad, a versatile Chemist of Pakistan, Council Member, Pakistan Academy of Sciences and Senior Professor, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi breathed his last on July 13, 2019 at Karachi. Dr. Viqar Uddin Ahmad joined Pakistan Academy of Sciences (PAS) as Fellow in 1991. He also served the Academy as its Council Member from 2018-2019.

Dr. Viqar Uddin Ahmad had a distinguished career in the field of Chemistry. In recognition of his outstanding contributions in the field of Chemistry. Dr. Viqar Uddin received prestigious civil awards, including: Sitara-i-Imtiaz (1996) and Hilal-i-Imtiaz (2006). His others awards include Gold Medal, Pakistan Academy of Sciences, 1972; Prime Minister's Gold Medal and Cash Prize, 1986; Khwarizmi Prize (Iran), 1998; DuPont Science Cash Award in Chemistry, 2003; and, Lifetime Achievement Award by Higher Education Commission, 2009. He was also honored with membership of various outstanding national and international bodies,



including Senior Fulbright Fellowship, USA, 1993; Alexander von Humboldt Fellowship Germany, 1975; and Fellowship of the German Academy Exchange Service (DAAD), 1966.