



# Newsletter

## Pakistan Academy of Sciences

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### January 2011

#### Volume 6, No. 1

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#### MESSAGE FROM THE PRESIDENT, PAS

"Dear Colleagues,

*As the new Council takes over from 1st January 2011, I pray that the new year brings with it new opportunities to the Pakistan Academy of Sciences to contribute to the development of science and technology in the country. The Academy has gone from strength to strength during the last decade and it is now time that it plays a more proactive role as an Advisory body so that it can guide the Ministries as to how Pakistan can transition from the trappings of a low value agricultural economy to a science, technology and innovation based knowledge economy. This is the task that I plan to take up seriously during the next two years.*



*I look forward to the guidance and support of Fellows of Academy in the challenges ahead of us."*

#### PAKISTAN ACADEMY OF SCIENCES (PAS) NEWS

##### Obituary: Prof. Dr. M. A. Hafeez (1937-2010)

"Life is a disease with 100% mortality". We all suffer from this disease and will eventually go back to our Maker. However, those few will be remembered who through their noble deeds to humanity leave behind indelible marks during their short journey in this world.

The PAS reports with deep regret the sad demise of our eminent Scientist, Fellow and Editor-in-Chief, Prof. Dr. M. A. Hafeez, who expired on October 22, 2010, in Islamabad.

Prof. Hafeez was a man of strong character and gentle disposition. He has made outstanding contributions in the field of zoology. May his soul rest in peace! (Ameen).



##### New Council of PAS for Biennium 2011-12

President: Prof. Dr. Atta-ur-Rahman, FRS, N.I., H.I., S.I., T.I.,  
Vice Presidents: Prof. Dr. M. Qasim Jan, H.I., S.I., T.I.  
Prof. Dr. Khalid Mahmood Khan, S.I.,  
Secretary General: Prof. Dr. G.A. Miana, S.I.,  
Associate Secretary General: Prof. Dr. M. D. Shami, S.I.  
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Secretary, Karachi Chapter      Prof. Dr. M. Iqbal Choudhary, H.I., S.I., T.I.,  
 Secretary, Peshawar Chapter      Prof. Dr. Muhammad Asif Khan, T.I.  
 Secretary, Lahore Chapter      Dr. Kauser Abdulla Malik, H.I., S.I., T.I.,

### Induction of Fellows Elected in the Year 2009

*Prof. Dr. M. Asif Khan and Prof. Dr. Raheel Qamar* were declared elected Fellows of the Academy in the year 2009. They were formally inducted and given medallions and certificates by the President, PAS, in the General Body Meeting held on November 25, 2010. Both signed the Charter Book of the Pakistan Academy of Sciences.



Prof. Dr. Asif Khan is receiving his medallions from the PAS President, Dr. Ishfaq Ahmad



Prof. Dr. Raheel Qamar is receiving his medallions from the PAS President, Dr. Ishfaq Ahmad

### Election of New Fellows During 2010

The following four scientists were elected PAS Fellows during 2010:

Prof. Dr. Wasim Ahmad  
 Prof. Dr. Khalid Muhammad Khan  
 Prof. Dr. Asghari Maqsood  
 Prof. Dr. Muhammad Sharif

### Distinguished Scientist of the Year Award 2010

The Academy conferred the award of Distinguished Scientist of the Year 2010 in the discipline of Mathematics upon *Prof. Dr. Tasawar Hayat*, Distinguished National Professor, Department of Mathematics, Quaid-i-Azam University, Islamabad. Dr. Tasawar Hayat was presented with a Medal, Certificate and a Cash Prize of Rs. 330,000/-.



President PAS, Dr. Ishfaq Ahmad conferring award to Dr. Tasawar Hayat

### PAS Awards Medals, Cash Prizes and Certificates conferred upon the Winners of 2010

The following scientists were awarded **PAS Medals**, Cash Prizes and Certificates by the President PAS on November 25, 2010:

S.No.	Name & Address	Field
1.	Dr. Zahir Ahmad Zahir, Institute of Soil & Environmental Sciences, University of Agriculture, Faisalabad	Agriculture
2.	Dr. Muhammad Ansar, Department of Biochemistry, Quaid-i-Azam University, Islamabad	Biochemistry

S. No.	Name & Address	Field
3.	Prof. Dr. Asghari Bano, Department of Biological Science, Quaid-i-Azam University, Islamabad	Botany
4.	Prof. Dr. Khalid M. Khan, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi.	Chemistry
5.	Prof. Dr. Akhtar Muhammad Kassi, Department of Geology, University of Balochistan, Quetta	Earth Sciences
6.	Dr. Munir A. Rashid, Centre for Advanced Mathematics and Physics (CAMP), NUST, H-12, Islamabad	Mathematics
7.	Dr. Ambreen Arif, Medical Officer, JPMC, Karachi	Medical Sciences
8.	Dr. Nasir Amin, Department of Physics, University of Agriculture, Faisalabad	Physics
9.	Dr. Abdul Rehman, University of the Punjab, Lahore	Zoology

The following Medals/Prizes were also awarded:

1.	Dr. Farooq Anwar, Deptt. of Chemistry and Biochemistry, University of Agriculture, Faisalabad	Prof. Atta-ur-Rahman Gold Medal/Prize 2010 in Chemistry (Under 40)	Chemistry
2.	Dr. M. Shahid Rafique, Department of Physics, UET, Lahore	Dr. M. Raziuddin Siddiqi Prize 2010 (Under 40)	Physics
3.	Dr. Syed Munir Hussain Shah, Department of Chemistry, Quaid-i-Azam University, Islamabad	TWAS Prize 2010 for Young Scientist in the South (Under 40)	Chemistry
4.	Dr. Muhammad Azim Khan, Department of Weed Science, NWFP Agriculture University, Peshawar	Dr. Shah Jahan Prize 2010	Agriculture

### PAS Fellows received National & International Awards

1. *Prof. Dr. M. Qasim Jan* received ISESCO Science Prize 2010 in the Field of Geology.
2. *Prof. Dr. Tasawer Hayat* was elected Fellow of the Academy of Sciences for the Developing World (TWAS), in the year (2010).
3. *Prof. Dr. Tasawer Hayat*, has been chosen for the Civil award, Sitara-I-Imtiaz, by the President of Pakistan on Independence Day August 14, 2010.
4. Zoological Society of Pakistan conferred Life Time Achievement Award 2010 upon *Prof. Dr. Imtiaz Ahmad*.

### PAS-sponsored Conferences/ Symposia/ Workshops

1.	4 <sup>th</sup> International Conference on "Recent Developments in Fluid Mechanics". August 3-4, 2010, Islamabad	Prof. Dr. Tasawer Hayat	Rs. 0.75 M
2.	International Conference on: "Earth Sciences Pakistan 2010: New Developments". Sept. 15-17, 2010, Baragali Summer Campus, Univ. of Peshawar	Prof. Dr. M. Qasim Jan	Rs. 0.75 M

3.	One day Seminar on "New Techniques, Biodiversity and Conservation". October 28, 2010. Karachi	Prof. Dr. Mohammad Qaiser	Rs. 0.55 M
4.	12 <sup>th</sup> International Symposium on Natural Products Chemistry. Nov.22-25, 2010, HEJ Res. Inst. of Chemistry, Univ. of Karachi.	Prof. Dr. M. Iqbal Choudhary	Rs. 0.75 M
5.	Training Course cum Workshop "Applications of Modern Mass Spectrometry for Natural Products-based Drugs", 26-28 November, 2010 at H.E.J. Res. Inst. Of Chemistry, Univ. of Karachi	Prof. Dr. Atta-ur-Rahman	Rs. 0.745 M
6.	Biomolecular Science in Development. December 1-5, 2010, Karachi	Prof. Dr. Syed Irtifaq Ali	Rs. 0.495 M
7.	12 <sup>th</sup> National Symposium on Frontiers in Physics, January 27-29, 2011, Lahore	Prof. Dr. G. Murtaza	Rs. 0.2 M

## Reports of Conferences

### International Conference on "Conduct of Responsible Science, Safety, Security and Ethics"

The Conference was organized by COMSTECH, in collaboration with PAS and the International Council for Life Sciences (ICLS) on June 9-10, 2010 at COMSTECH Secretariat, Islamabad, Pakistan. A total of 68 international and local participants from universities and research organizations attended the Conference.

The speakers laid stress on the notion that science should not be misused to harm the humanity. Participants from Jordan, Morocco, USA and several cities of Pakistan actively participated in the discussion and concluded that biology needed more attention in regulating policies.

### Earth Science Pakistan 2010: New Developments

The Conference was organized by the NCE in Geology, University of Peshawar, at its Summer Campus Baragali on September 22-27, 2010. It was convened by *Prof. Dr. M. Asif Khan, Prof. Dr. M. Qasim Jan* and *Prof. Muhammad Hafeez*, whereas Prof. Dr. Tahir Shah was the Chief organizer. Prof. Dr. Azmat Hayat, Vice Chancellor, Peshawar University and Mr. M. Qasim Khan, Member (Power), WAPDA, jointly presided the inaugural session.

The Conference comprised of one special session and eight technical sessions, viz. 1) Tectonics and Earthquake Seismology/Engineering; 2) Economic, Engineering and Applied Geology; 3) Sedimentology and Biostratigraphy; 4) Environmental Sciences; 5) Climate Change and Natural Hazards; 6) Petroleum and Geophysics; 7) Mineral Deposits; and 8) Petrology and Tectonics. The Special Session was dedicated to professional earth-science organizations, their functions, achievements and future plans. Every technical session was started with Invited talk by an eminent specialist in some field of Earth and Environmental Sciences. At the end of technical sessions, a Plenary Discussion was held in which recommendations for further developments in the field of Earth and Environmental Sciences were formulated. These recommendations will be sent to the government and various agencies for wider impact and policy making. At the end of the Conference, a ceremony was held for the distribution of certificates and awards.

### New Research Project

A 2-year research project titled, "*Geology and Geomorphology of the Nagar Parkar Area, District Thar Parkar, Sindh*" by *Prof. Dr. M. Qasim Jan* was sanctioned at a cost of Rs. 2.0181 million.

### Research Projects Completed

The following research projects were completed and their final technical reports and audit reports submitted by the PIs:

1. *Isolation, Structure, Elucidation and Biological Activities Studies of the Chemical Constituents of Medicinal Plants of Baluchistan*, by *Prof. Dr. Viqar ud Din Ahmad*
2. *Refinement of Rearing/ Release Technique of Bracon hebetor\_(Say) as Bio-Control Agent for Integrated Management of Armyworm Spodoptera litura (Noctuidae: Lepidoptera)*, by *Prof. Dr. Mohammad Ashraf*

Both the reports were evaluated as satisfactory by the subject experts.

## Launching Ceremony of the Book "In the Pursuit of Excellence" by Prof. Dr. G. M. Khattak

The book launching ceremony was held on September 27, 2010 in the Auditorium of Pakistan Academy of Sciences in collaboration with Ministry of Environment. Mr. Hameed Ullah Jan Afridi, Federal Minister for Environment, was the Chief Guest.



## REPORTS ON PAS-SPONSORED PARTICIPATION OF FELLOWS IN INTERNATIONAL CONFERENCES / SEMINARS/ WORKSHOPS, ETC.

### Inter-Academy Panel Regional Workshop on "Science Academies in Central and Southern Asia and Their Role in Society" hosted by Turkish Academy of Sciences (TÜBA)

The Workshop was held on September 1-2, 2010 in Istanbul, Turkey. *Prof. Dr. Khalid Mahmood Khan*, Vice President PAS represented PAS.

In the Workshop, the points of special interest highlighted were: (1) Close cooperation between the IAP Member Academies of Sciences; (2) Academies of Sciences role in increasing gender balance in Science Education; (3) Participation in NATO Science Projects; (4) Strategic Plan of Inter Academy Panel.

*Prof. Dr. Khalid Mahmood Khan* had a special meeting with Dr. Deniz Beten, Head of Section, NATO Public Diplomacy Division, Belgium, about including Pakistan in NATO Science Projects. She agreed to accept the Pakistani projects for normal evaluation at par with other countries. Cooperation of PAS with TÜBA was also discussed with Dr. Kanpolat, President TÜBA, for which he gave a very positive response.

### TWAS 12<sup>th</sup> General Conference and 21<sup>st</sup> General Meeting in Hyderabad, India October 19-22, 2010

The Indian National Science Academy sponsored and organized the activity in cooperation with TWAS Regional Office for Central and South Asia and other agencies in India.

The opening speech was delivered by Prime Minister of India, Dr. Manmohan Singh, who deliberated upon tremendous contributions of the Nobel Laureate from Pakistan, *Prof. Dr. Abdus Salam*, the founding President of TWAS. The Prime Minister urged the developing countries to take advantage of their growing capacity in S&T to chart a new path for development that does not pose same levels of risk to the environment as development paradigms devised by industrialized countries in the 19<sup>th</sup> and 20<sup>th</sup> centuries.

In this four-day event, 58 new TWAS members from 21 countries were elected and TWAS prizes for 2009 were awarded to winners. Names of the 2010 winners were also announced in a ceremony. ***Prof. Dr. Tasawar Hayat, Fellow PAS*** was one of the newly elected TWAS Fellows.

The following Fellows of the PAS attended the event:

1. Prof. Dr. S. Qasim Mehdi
2. Prof. Dr. Abdul Ghaffar
3. Prof. Dr. Imtiaz Ahmad
4. Prof. Dr. M. Qaiser
5. Prof. Dr. Mustafa Shameel
6. Prof. Dr. Bina S. Siddiqui
7. Prof. Dr. Viqar ud Din Ahmad
8. Prof. Dr. Rabia Hussain

TWAS's long-standing Executive Director, Mohamed H. A. Hassan, will retire at the end of year 2010, after a quarter century of service to the Academy. TWAS's 22nd General Meeting will take place in Rabat, Morocco, next fall. The Moroccan Academy of Sciences and Technology will be the host.

## 10<sup>th</sup> Anniversary Ceremony of the Association of Academies of Sciences in Asia (AASA) and 4<sup>th</sup> Council Meeting of Federation of Asian Scientific Academies and Societies (FASAS)

The AASA was established in 2000 to promote solidarity and cooperation among the scientific and technological academies in Asia and Australia and to play a central role in cooperative efforts for further development of the regions through science and technology. AASA currently has a total of 26 member academies. The Federation of Asian Scientific Academies (FASAS) was setup in 1984 to promote the advancement of science and technology in Asia, to create greater awareness about the role of science and technology in nation building among general public, business communities and policy and decision makers, and to enhance the contribution and impact of academies and societies in national and regional development. Currently, FASAS has 18 member institutions. The following four Fellows of Pakistan Academy of Sciences participated:

1. Prof. Dr. G. A. Miana
2. Prof. Dr. Khalid M. Khan
3. Prof. Dr. M. Perwaiz Iqbal
4. Prof. Dr. Zabta Khan Shinwari

AASA also organized an International Symposium on "One Green Asia and the Fourth AASA-FASAS Joint International Conference on 'Science Education in Asia and Pacific'" in Seoul, Korea on 18-22 October, 2010. It was hosted by The Korean Academy of Science and Technology. The event started with impressive AASA 10<sup>th</sup> Anniversary Ceremony and ended with The 9<sup>th</sup> General Assembly Meeting of AASA and the 4<sup>th</sup> Council Meeting of FASAS. **Pakistan's Prof. Dr. Qasim Jan was reelected as Secretary General AASA for a second two-year term**, which is an honour for the country.



## 6<sup>th</sup> Nepal Geological Society Congress; 15-17 November, 2010, Kathmandu, Nepal

This Congress on "**Geology, Natural Resources, Infrastructures, Climate Change and Natural Disasters**" was organized by Nepal Geological Society on 15-17 November 2010 in Hotel Everest, Kathmandu. The Chief Guest, Rt. Honorable President of Nepal, Dr. Ram Baran Yadav, inaugurated the Congress that was attended by over 100 participants from 21 countries, viz., Austria, Bangladesh, Bhutan, Canada, France, Czech Republic, Germany, India, Italy, Japan, South Korea, Mexico, Norway, Pakistan (11 participants), Poland, Russia, Singapore, Taiwan, Turkey, Ukraine, USA and 125 participants from Nepal. The Congress included five Keynote papers, six Special papers, 78 General papers, and 24 Posters in three parallel Technical Sessions.

*Prof. Dr. M. Qasim Jan* chaired technical session **Regional Geology and Tectonics** and delivered a keynote address, titled "*An overview of the Jijal Complex, the roots of the Kohistan magmatic arc in the Himalaya of Pakistan.*" *Dr. MonaLisa* co-chaired technical session **Seismology, Seismotectonics and Seismic Hazards**, and presented a talk on *Seismic Hazard Map of Islamabad, Pakistan, using newly developed attenuation equation.*

The Congress was followed by two Field Excursions: EX-1 (Kathmandu-Butwal-Pokhara-Jomsom, for 6 days) and EX-2 (Kathmandu-Kodari/Tatopani, for one day).

### **International Conference on Nanotechnology: Fundamentals and Applications” held in Ottawa, Canada, during August 2-6, 2010**

*Dr. N.M. Butt* presented an oral paper on “Need for Nanotechnology Education for Specific Undergraduate (BS) Degrees”. He also initiated the Programme of Nano Education Network (NEN). *Dr. Butt* has been invited to be on the Technical Advisory Committee of the 2<sup>nd</sup> International Conference on Nanotechnology to be held in July 2011 in Ottawa and also to give a plenary lecture on Nano-Education.

### **Seminar on “Floristic Biodiversity and Conservation”**

A Seminar on “Floristic Biodiversity and Conservation” was held on 22<sup>nd</sup> December 2010 at Federal Urdu University of Sciences and Technology, Gulshan-e-Iqbal Campus, Karachi, which was attended by leading Taxonomists and Ecologists of the country. The Seminar was inaugurated by Prof. Dr. Pirzada Qasim Raza Siddiqui, Vice Chancellor, University of Karachi. There were 9 presentations, covering different topics on floristic biodiversity, conservation and some recent topics like use of DNA barcode for the identification of plants (*Dr. Zabta Khan Shinwari*). Some papers were also sent by from abroad, including UK, Germany, USA, India, Russia, Turkey, Iran, Australia and Nepal. After peer review, all these papers have been published in a Special Issue of *Pakistan Journal of Botany*. The Seminar was dedicated to Prof. Dr. S.I. Ali, Senior Editor of Flora of Pakistan and a renowned Plant Taxonomist, on his 80<sup>th</sup> birthday, for his outstanding contributions in the field of Plant Sciences.



Prof. Dr. M. Qaiser (VC Federal Urdu University) is presenting a shield to Chief Guest, Prof. Dr. Pirzada Qasim Raza Siddiqi (Vice Chancellor, Karachi University), Prof. Dr. S.I. Ali and Prof. Dr. Anjum Perveen are also in the picture

## **NEWS FROM H.E.J. RESEARCH INSTITUTE OF CHEMISTRY, UNIVERSITY OF KARACHI**

### **12th International Symposium on Natural Product Chemistry**

The Symposium was held at ICCBS Campus, University of Karachi, on November 22-25, 2010. The event included plenary, invited and session lectures from many eminent scientists from around the Globe. Special efforts were made to bring young researchers from developing countries and from different regions of Pakistan. Over 500 scientists, including 50 researchers from over 30 countries, participated in the event, making it as one of the largest science conferences in the country in recent years. The Symposium was supported by many national and international organizations and commercial enterprises, including Organization for the Prohibition of Chemical Weapons, COMSTECH (OIC’s Standing Committee on Scientific and Technological Cooperation), *Pakistan Academy of Sciences*, Higher Education Commission, Pakistan Science Foundation, PABIC (Pakistan Biotechnology Information Center), Bentham Science Publishers, Rays Technologies, Bana International, Analytical Measuring System, H.A. Shah & Sons, and others.

## **Training Course-cum-Workshop on "Applications of Modern Mass Spectrometry for Natural Products-based Drug Development"**

This Training Course-cum-Workshop held at International Center for Chemical and Biological Science (ICCBS) campus during 26-27 November, 2010. The Workshop comprised of lectures and the hands-on training on various aspects of mass spectrometric tools and its applications particularly in natural products-based drug development and analysis. 25 scientists, including one from Malaysia, participated.

The Workshop Sessions were conducted by an eminent foreign expert. Dr. Asraf Raza, Project Manager, Covance, Indianapolis, USA, along with local resource persons. During the practical sessions, participants were exposed to a wide range of modern mass spectrometers available at the H.E.J. Research Institute of Chemistry including LC-ESI-QqTOF-MS/MS (Applied Bio-system) and MALDI-TOF-TOF-MS Mass Spectrometers. Thus, untiring and dedicated efforts of all members of the ICCBS who were involved in organizing the workshop are appreciated. Generous financial support from Pakistan Academy of Sciences for organizing this Workshop is also acknowledged.

### **UP-GRADATION OF PAS FELLOWS LODGE**

- UPS has been installed in the lodge.
- Internet connectivity has been extended to all the rooms.
- Renovation of sofa sets/chairs and dinning chairs has been undertaken.

### **Pakistan Academy of Sciences appoints New Editor-in-Chief**

Consequent upon the sad demise of Prof. Dr. M.A. Hafeez, Pakistan Academy of Sciences has appointed new Editor-in-Chief, whose contact information is as below:

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All future communications regarding **Proceedings of the Pakistan Academy of Sciences** as well as **Newsletter** may please be made with the new Editor-in-Chief.