Patron

Prof. Dr. Muhammad Ashraf Chairman Pakistan Science Foundation

Chief Editor

M. Javed Igbal **Education Programmer**



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From the Chairman



The role of teachers in imparting knowledge and building personality of students is of immense importance. They are also role models for their students. But the most important thing is their method and technique of teaching in and outside the classroom. The other significant factor is the capability of the teacher to satisfy the curiosity and queries of their students, particularly while teaching the science subjects.

One of the main reasons for weak base of science in the country is lack of proper training of teachers, especially science teachers as most of them have no aptitude for this sacred task whereas teaching should be passion not profession. The other countries are paying special attention to this factor and they appoint highly qualified

Continued on page 2

World Science Day Celebrated

Use of Science only Solution to Sustainable **Development: Speakers**

To create awareness and encourage students towards scientific education and research with a view of sharing ideas between the scientists and students. Pakistan Science Foundation (PSF) in collaboration with UNESCO Islamabad and ECO Science Foundation (ECOSF, organized a Convention Of Scientists on the occasion of World Science Day 2015 in Islamabad under this year's theme "Science for Sustainable Development".

Officials and representatives of the Ministry of Science and Technology, PSF, ECOSF, UNESCO, and representatives from academia and research institutions in Pakistan attended the event.

Mr. Fazal Abbas Maken, Federal Secretary, Ministry of Science and Technology, who was the Chief Guest on this occasion, in his remarks highlighted the importance of science and technology and said that the objective of World Science Day was to renew the national, as well as the



Ministry of Science and Technology Secretary Mr. Fazal Abbas Maken addresses "Scientists Convention" organized to celebrate World Science Day at Pakistan Science Foundation on November 11, 2015.

international commitment to use Science and technology for national development and achieving peace by appropriate use of its applications.

He underlined the importance of the theme of WSD-2015, as declared by UNESCO "Science for a Sustainable Future", and mentioned that creating knowledge and its applications by using science helped us to find solutions to today's acute economic, social and environmental challenges to achieve sustainable development. He said that in present age, "international

scientific cooperation is essential, so we should initiate joint programs from international platforms, in which UNESCO can play a vital role". He further described that sustainable development was probably the most daunting challenge that humanity had ever faced, and it is only possible by appropriate use of science.

He congratulated UNESCO, PSF and ECOSF for organizing such an important event. He also congratulated the prize winner students, assembled at PSF from all over











From the Chairman

people even PhDs for teaching young children to build their minds according to their interest in the specific subjects. And those countries also offer high salaries and respect to the teachers. The developed countries regularly arrange refresher courses for the teachers to update their knowledge, methodology and techniques of teaching by using modern tools. Unfortunately, Pakistan has no sound system of teachers training.

In order to strengthen scientific base in country we should have to pay attention towards the selection criteria of teachers and their salaries. A system of science teachers training is also need of the hour.

Pakistan Science Foundation with its limited resources is trying its level best to impart training to the teachers for development of science in the country. Inquiry-based Science Education is one of its training programmes for the teachers to create questions in minds of students and through experimentation finding answers to these questions. Its subsidiary organization Pakistan Museum of Natural History also regularly organizes trainings for science teachers to update their knowledge.

But all these efforts are not sufficient to accomplish this task. The provincial governments should allocate special funds for training programmes of science teachers. The private sector should also come forward and help the Foundation in this task as corporate social responsibility.

the country.

In her remarks, Ms. Vibeke Jensen, Representative/ Director UNESCO Islamabad said that the World Science Day for Peace and Development is an occasion for us to remember that the science should be at the service of humanity as a whole, and should contribute to providing everyone with a deeper understanding of this planet and its people. UNESCO provides countries with guidance in developing or revising their national STI policies and in strengthening national capacities in science education and research.

Prof. Dr. Muhammad Ashraf, Chairman PSF, in his welcome remarks said that PSF is playing a key role in promotion of science education at different levels in the country. It holds the honor of celebrating World Science Day every year to honor the efforts of Pakistani scientists and students working for the attainment of national goals, despite limited resources available to them, he added.

Dr. Ashraf said that PSF is the only government organization in the country working for the dissemination of scientific knowledge in the rural areas of

the country he said, adding that for this purpose, PSF operates through science caravans which are equipped with basic scientific gadgets. There are about seven science caravan centers across the country, which regularly organize science exhibitions in rural and remote areas of the country. Apart from providing scientific knowledge, the children are also engaged in different scientific activities and the relevant scientific material is also provided to them, the PSF Chairman mentioned.

He further added that PSF has a broad-spectrum, ranging from school education to strengthening of university laboratories. Research funded by PSF has produced many valuable results and many MS and PhD scholars have completed their degrees through these projects. Many laboratories working on key scientific issues are developed through PSF funded projects, he said. Recently, PSF has launched a Science Talent Farming Scheme for the students of secondary level. The Foundation aims to groom their abilities for becoming productive scientists, he maintained.

Speaking at the convention, Dr. Manzoor Soomro, President

ECOSF, highlighted the aims and objectives of the regional organization. He said that ECOSF was created to promote science in Economic Cooperation Organization (ECO) member countries and Pakistan is one of its important members. He stressed the need for promoting inquiry-based science education. Eminent scientists of Pakistan, Prof. Dr. Aslam Baig, HI, SI, TI, National Centre for Physics and Dr. S.T.K Naeem . Consultant, COMSTECH also spoke on this occasion.

At the end of the event, PSF Gold Medals, certificates and cash prizes were distributed among the winner students of Inter-Board Competitions, Intel ISEF and Asian Science Camp-2015.

Awards & Prizes to Winner Students

Inter Board Competitions: Supporting young students in various science popularization activities is a regular programme of PSF. PSF has been organizing Intra/Inter Board Science Essay and Poster Competitions in collaboration with all Boards of Intermediate and Secondary Education (BISE) of the country for the last 25 years. 24th Essay & Poster contests



Federal Secretary, Ministry of Science and Technology, Mr. Fazal Abbas Maken awards prize and certificate to winners of science competitions, on the occasion of World Science Day at Pakistan Science Foundation on November 11, 2015.

Omote of the Month

"The next major explosion is going to be when genetics and computers come together. I'm talking about an organic computer - about biological substances that can function like a semiconductor."

–Alvin Toffler

were conducted in which thousands of students participated from all over the country. Science Essay and Poster Competitions were firstly held at Intra-Board level. Afterwards, PSF organized "Inter-Board Contests" on the basis of results of Intra level. Judges consisting of professors, scientists and artists evaluated the essays and posters received from all over the country for best three positions. PSF awards merit certificates and cash prizes to the winners to encourage students. This year Essay Competition was on the theme titled "Why Students feel Difficulty in Science Education" and for Science Poster Competition the theme was "Disadvantages of Mobile Phones & Internet for Students". Winners of the Inter Board level were invited to Islamabad and provided a forum to share their ideas with the eminent scientists of the country. Medals and certificates were awarded to them on the occasion of World Science Day-2015. Detail of the winners of Inter Board level of Essay and Poster Contests are given below;

Poster Competition: Ms. Zartasha Rana of Islamic Alta Vista High School, Sargodha and Ms. Amna Tariq of Dar-e-Argam Model School, Sargodha were awarded first and second positions prizes respectively while Mr. Muhammad Muzammil from The Citizens Foundation Secondary School, Tando Allah Yar, Sindh and Mr. Yasir from Divisional Public School & College Faisalabad were jointly awarded prize of Third position.

English Essay Competition: Ms. Rimsha Shahzadi of The City School, Daska, Ms. Manoor Fatima from The Leadership Girls High School,



Ms. Vibeke Jensen, Director UNESCO Islamabad awards prize and certificate to winners of science competitions, on the occasion of World Science Day at Pakistan Science Foundation on November 11, 2015.

Sargodha and Syed Farhad Ali Shah from Govt. Boys Higher Secondary School, Sindh University Society, Jamshoro were awarded prizes for 1st, 2nd and 3rd positions respectively.

Urdu Essay Competition: Ms. Aleena Shahid Dudhra from Jinnah Public School & College, Hafiz Hayyat, Gujrat was awarded 1st prize while Ms. Mahnoor Mustafa from Bahria School & College, Campus-1, Karachi and Muhammad Essa from Akram Khan Durrani College, Bannu shared the 2nd prize. The 3nd prize went to Iram Nawaz from Govt. Girls Higher Secondary School Sahiwa.

ii. Intel ISEF: PSF and Intel Education Initiative Pakistan have been organizing Science Fairs at Provincial and National levels for several years. In this regard in year 2014-15, Intel Science Fair was started in May-June 2014 and continued till January 2015. Initially, more than 12,000 students took part in the Provincial Science Fairs arranged at Karachi, Quetta, Peshawar, Lahore, and Islamabad. For the final i.e. National Science Fair, about 100 group and individual projects, prepared by 193 were selected and students

showcased at Sir Syed Memorial Complex, Islamabad on 27-31 January, 2015 and nine students with three individual and two group projects were selected for participation in the Intel ISEF 2015 in USA held in May. By the grace of Almighty Allah, one student from Pakistan namely, Habab Idrees was won dual honor; an honorary mention and a third prize of \$1000 in the category of Energy. Habab's project was "Multi-Purpose Smart Solar Device" which involved the creation of a low-cost solar device controlled through an android application. In recognition of the talent of Mr. Habab PSF awarded Gold Medal, Cash Prize of Rs.10,000 and certificate on the occasion of WSD-15.

Asian Science Camp-2015: PSF, being a focal organization for Asian Science Camp (ASC) coordinated with the organizers for participation of Pakistani students in ASC-15. This year ASC was held at Pathumthani, Thailand and over 270 students from 29 Asian countries participated. The Pakistani delegation comprising seven students along with the Team Leader participated in the camp. The Camp included seven plenary

lectures by the Nobel Laureates, Panel Discussion, Group discussions and Poster presentations.

The Pakistani students were able to win six awards in different activities of the camp. In recognition of their achievements, PSF awarded Gold Medal, Cash Prize of Rs.10,000 and certificate to each student on the occasion of WSD-15. The prize-winner students included Amir Zaryab from Cadet College Hasan Abdal (Bronze Poster Award), Muhammad Shoaib Butt from GIKI, Swabi (Bronze Poster Award), Maryam Khan from Dow Medical College, Karachi (Best Question Award and Honorable Poster Mention) and Danial Amin from IST, Islamabad (Best Question Award and Bronze Poster Award).

WSD Celebration by Science Caravan Units

Sukkur: The PSF Science Caravan Sukkur Unit arranged speech competition on 13th November, 2015 at Govt Boys Higher Secondary School Shahdad Kot. Mr. Irfan Ahmed, Assistant Director, Science Caravan unit Sindh Sukkur, Mr. Mohammad Mahmood Baloch, In Charge, Govt Boys Higher Secondary School

Hakeem Brohi DEO, teachers and students attended this programme and the winners were awarded cash prizes.

Peshawar: The Science Caravan Peshawar Unit arranged speech competition on "Science for a sustainable future" at Govt. High School No.1, Bannu on November 10, 2015 and top three positionholders were awarded cash prizes and appreciation certificates.

Shahdad Kot, Mr. Abdul competition among the students was organized at Govt. Boys High School, Badin on November 14, 2015 in which students, teachers and education officers participated. Cash prizes were distributed among the students.

Quetta: Science Caravan Quetta Unit arranged an Intra High Classes Speech Competition on "Sustainable Future for all" at Igra Residential High School, Ouetta on November 10, 2015. Tandojam: Speech Cash prizes were distributed



amongst the position-holders. Jaffarabad: Science Caravan Jaffarabad Unit arranged speech and essay writing competitions on the occasion

of World Science Day among the students of schools of Usta Muhammad. Cash prizes were distributed among the winnerstudents.

Avenues of Pak-Turkmenistan Cooperation in S&T Discussed

A 3-member high level Ambassador Atadian delegation of Turkmenistan called on Pakistan Science Foundation (PSF) Chairman Prof. Dr. Muhammad Ashraf (S.I.) on November 24, 2015 and discussed avenues of cooperation between Pakistan and Turkmenistan for development of science in the two brotherly countries.

The delegation comprised Turkmenistan Deputy Minister of Education, Turkmen

Movlamov and Turkmenistan's National Institute of Manuscript Director Dr. Ashyrov Annagurban. Senior officers from Ministry of Science and Technology, Ministry of Inter-Provincial Coordination and PSF were also present.

The delegation was on an official visit to Pakistan for 1st Meeting of Joint Working Group on Cooperation in the

fields of Education and Science and Technology (S&T) between Pakistan and Turkmenistan on November 24-26.

The PSF Chairman briefed the delegation about the PSF mandate, programmes and international liaison with S&T organizations of many countries. He said that PSF has signed MoUs of cooperation with S&T organizations of China, Turkey and USA etc. Dr. Ashraf said that PSF was

established in 1973 under and Act of Parliament on the pattern of National Science Foundation of USA for promotion, development and funding of scientific research.

Pakistan and Turkmenistan have already signed an Agreement of S&T Cooperation in 1994 and practical steps are needed to materialize this cooperation, he maintained. The delegation was informed that 100 scholarships were available in Pakistan for students of OIC member countries and Turkmenistan can avail its share.

The meeting concluded that education, particularly science education is the only way to the national development and both brotherly countries will take practical measures for cooperation in the fields of education and S&T.



PSF Chairman Prof. Dr. Muhammad Ashraf briefs the Turkmenistan delegation about the Foundation's programmes and activities on November 24, 2015.



A group photo on the occasion of Turkmenistan delegation's visit to Pakistan Science Foundation on November 24, 2015.

Seminar on Vaccine Development Held at PSF

Animal health is of the major issues of dairy farmers and vaccine development is one the key researchable areas for growth and development of livestock sector. On the recommendations of NSLP Technical Committee Meeting held on May 21, 201 the principal investigator of proposal entitled "Isolation of brucella species from cattle and buffaloes and construction of a gene knock

out vaccine against bovine brucellosis" submitted for financial assistance under NSLP. was invited to deliver a presentation in the PSF Committee Room. The Chairman PSF/Chief Executive NSLP. Prof. Dr. Muhammad Ashraf and other senior officers attended the presentation and discussed the technical aspects of the project.



Prof. Dr. Muhammad Ashraf, Chairman PSF/CE of NSLP chairs a presentation on Vaccine Development, at PSF.

appreciated by over 2000

students, teachers and general

Science Centre, Faisalabad:

In November 2015 over 253

students from the schools of

Faisalabad visited Science

Centre, Faisalabad and they

were briefed about the exhibits

19, 562 Students from 84 Schools Visit Science Caravan Exhibitions in Nov.

organizes different activities across the country to promote science among students. In November this year 19,562 students and teachers from 84 schools benefitted from science caravan exhibitions arranged by the Caravan

Federal Unit: The Federal Science Caravan Unit arranged exhibition at govt. Girls Higher Secondary School, Sohawa District Jhelum on November 23-28, 2015. The exhibition was visited by 2,500 students from nine schools of the surrounding areas.

Sukkur Unit: The Science Caravan Sukkur Unit arranged the exhibition at Govt. Boys / Girls Higher Secondary Schools, Shahdad Kot, District Kamber on November 10-26. 2015 and 4,360 students, teachers and other staff from 26 schools visited it.

Tandojam Unit: The Tandojam Unit arranged exhibition at Cadet College

PSF Science Caravan Units Petaro, Jamshoro on was visited by 1,633 students November 06-08, 2015, which from 9 schools. Another was visited by 350 students and 15 teachers. Another exhibition was arranged at Govt. Boys/Girls High School Taluka & District Badin on November 10-26, 2015, which was visited by 4076 students, 112 Teachers from 13 schools.

Peshawar Unit: The Peshawar Unit arranged Science exhibition at Govt. High School No.1 Bannu City on November 9-18, 2015, which

Science Exhibition was arranged at Akram Khan Durrani College for Boys, Bannu on November 19-25, 2015, which was visited by 4,125 students and 148 teachers from 23 schools.

Faisalabad Unit: The Faisalabad Unit arranged Science Exhibition at National Museum of Science & Technology on November 1-5, 2015, which was visited and

and galleries of the Centre. FMC of NSLP Approves **Seven Projects** for Funding The 17th meeting of Fund

public.

Management Committee (FMC) of NSLP was held on November 04, 2015. The meeting was chaired by the Chairman PSF/Chief Executive NSLP, and attended by honorable members of the Fund Management Committee. The FMC approved for funding seven new projects focusing on key national issues recommended by NSLP Technical Committee. Different universities and R&D organizations across the country will run these projects.



Glimpses of activities in November 2015 by Science Caravan Units of Pakistan Science Foundation in different cities of the country

PSF Trains Sohawa Teachers on IBSE

PSF arranged a teachers training session on Inquiry Based Science Education (IBSE) on November 27, 2015 at Govt. Girls Higher Secondary School (GGHSS), Sohawa, District Jhelum. Over 20 teachers from performed some IBSE hands on acknowledged the session.

Sohawa schools participated in activities about physics, the session. Ms. Zaiban Farooq, presentation to the participants about IBSE. Later on, the teachers and students IBSE. All the teachers

chemistry and biology. Mr. Assistant Director, PSF, gave a Asadullah also guided the teachers and students while performing the activities under



Teachers perform hands on activities under IBSE during Training Session at GGHSS, Sohawa

Pakistan Museum of Natural History (PMNH)

Editor: Dr. Muhammad Ismail Bhatti

Secretary MoST Visits PMNH

The Federal Secretary, Ministry of Science & Technology, Mr. Fazal Abbas Maken, visited PMNH on November 16, 2015. PSF Chairman Prof. Dr. Muhammad Ashraf, PMNH Director General Dr. M.K. Leghari and Directors received the Secretary on his arrival at PMNH. Dr. Muhammad Rafique, Deputy Director General PMNH in a presentation briefed the Secretary about the PMNH research and educational activities. He also highlighted achievements, future plans and some problems. During the meeting the Federal Secretary discussed ways and means to promote formal as well as informal education in the country through PMNH as a source of education. The Secretary also visited different galleries and repositories of PMNH.The scientists of different disciplines answered the queries. He appreciated scientists' effort to collect natural history specimens and their display for research and educational purposes.



The Federal Secretary, Ministry of Science & Technology, Mr. Fazal Abbas Maken, being briefed about model of PMNH building.

Chinese Media Delegation Visits PMNH

Pakistan in Beijing, a 10member Chinese media delegation visited PMNH on November 24, 2015. The delegation took keen interest in PMNH galleries and displays. The team members appreciated the effort of Pakistan towards preservation of Natural History specimens. They admired the efforts of PMNH to display a unique specimen of Whale Shark and life size model of

land mammal in the world, for the public education. The PMNH scientists briefed the future plans.

On invitation of Embassy of Baluchetherium, the largest media personnel about the museum functions, collection, achievements, displays and



Chinese media delegation visits different galleries of PMNH

PMNH Valuable Source of Education: Senator Ch. Tanveer

Senator Ch. Tanveer Khan 27, 2015. PMNH Director Director ESD Dr. Ghazala visited PMNH on November General Dr. M.K.Leghari,



Senator Ch. Tanveer Khan during visit to PMNH

Roohi and other officers received the guest on his arrival at the museum. Dr. Ghazala Roohi and scientists from science divisions briefed the guest about the mandate and activities of the organization. The Senator cherished the efforts of museum scientists and other staff. PMNH is a valuable source of informal education and reference materials for research activities, he said.

PMNH Imparts Informal Education to 7.829 Visitors in Nov.

PMNH is playing an important role in imparting informal education through its display galleries. During November 2015 a total 7,829 persons including 3,136 students, 1,993 general public, 23 foreigners and 2,627 children under12 years of age visited the museum galleries. PMNH regularly organizes visits of student groups from educational institutions all over the country. The visits of important student groups are as under:

SAU Tandojam: A group of 66 MSc (Agri.) Honor students along with their teachers Mr. Muhammad Mithal Jiskani. Professor, Department of Plant Pathology and Dr. Muhammad Ibrahim Khaskheli, Associate Professor, Department of Plant



Protection, Faculty of Crop Protection, Sindh Agriculture University (SAU) Tandojam, Sindh visited PMNH.

BZU Multan: A group of 33 students of Entomology Department, Bahauddin Zakria University (BZU) Multan along with their teachers Dr. Zaga and Dr. Muhammad Binyameen, visited PMNH.



IIU Islamabad: A group of 50 students and three faculty members led by Dr. Ibrar Shinwari, Associate Professor, Department of Environmental Sciences, International Islamic University (IIU), Islamabad campus visited PMNH on Nov. 12, 2015.



The student group visits from other educational institutions include Convent of Jesus and Mary School Karachi, Al-Falah Group of Schools & Colleges Sangla Hill, Staff Public School & College Rawalpindi, Allied School Model Town Guiranwala, Dar-

PMNH Educational Stall on World Day for **GIS Attracts Visitors**

PMNH set up an educational stall during celebration of International Day for Geographic Information Systems (GIS) organized by PMAS Arid Agriculture University (AAU) Rawalpindi on November 18, 2015. The Museum in collaboration with Snow Leopard Foundation Pakistan displayed different GIS maps and other relevant items. PMAS-AAU Vice Chancellor Prof. Dr. Rai Niaz Ahmad was chief guest on the occasion. He visited the stall and appreciated PMNH/PSF activities to educate students and general public. Over 25 organizations/institutes arranged their stalls carrying GIS information and its practical benefits. Dr. Muhammad Ismail from PMNH and Mr. Dost Ali from Snow leopard Pakistan briefed the visitors. Over 500 students and general public visited the PMNH stall.

e-Argam High School Faisalabad, Jammu Kashmir College Kotli AJK, Marching Ball School System Sialkot, Ghazali Group of Schools, Gujranwala, The Science School Islamabad, Indus Valley School of Learning Rawalpindi, Serat-ul-Jannat Divisional H/S for Girls Guiranwala, Dar-e-Argam School Jhelum, Minhaj Model Middle School Kala Guiran Jhelum, Govt. Pilot High School Mangla, Mirpur AJK, JS Headquarters Chaklala Rawalpindi, Jinnah Public School Havelian, Women University Bagh AJK, Tanzeem-ul-Islam Education Center Gujranwala, Beacon House School System Islamabad and Waziristan Institute of Tech. Education.

Pakistan Scientific & Technological Information Centre (PASTIC)

Editor: Mrs Rahila Khurram

30 scientists win best innovation award for developing technologies ready for commercialization 5th Innovation to Invention Summit Held at Haripur University

PASTIC in collaboration with PSF, Haripur University, Pakistan Council for Science and Technology (PCST) and Institute of Research Promotion (IRP) organized 5th Innovation to Invention Summit, at Haripur University, Khyber Pakhtunkhwa (KP) on November 3-4, 2015.

The summit was aimed at bridging gap between Universities & Industries by bringing together academicians and industrialists on one platform. Over 500 scientists, scholars and industrialists from KP, Punjab and Islamabad regions participated.

The Secretary MoST, Mr. Fazal Abbas Maken, was the Chief Guest at the Inaugural Session. In his address he appreciated the efforts of all partners in organizing such a mega event in a remote area. Prof. Dr. Muhammad Ashraf, Chairman PSF, in his address presented



Secretary MoST, Mr. Fazal Abbas Maken inaguating the 5th Invention to Innovation Summit at Haripur University

asked academia to get

the contribution of PSF in the registered with PSF incentives education and development and assured that PSF would sectors in terms of funding. He fully support them in all manners.



A participant presents Technologies at 5th Invention to Innovation Summit at Haripur University

Prof. Dr. Muhammad Akram Shaikh, Member Science / DG PASTIC, Dr. Nasser Ali Khan, Vice Chancellor, Haripur University and Dr. Fida Younas Khattak, Vice Chancellor, Kohat University were also present on the occasion.

Mr. Talha Mehmood, Senator and former federal minister Mr. Umar Ayub presented awards to winners. A total of 300 technologies were presented in the form of posters during the event and out of them 30 best were selected by the technical panel and they won technology awards. As many as 30 senior scientists also won best innovation award for developing technologies which are ready for commercialization.

Dr. Nasser Ali Khan, Vice Chancellor, University of Haripur gave vote of thanks to all the dignitaries, participants and world class researchers of the country at the closing session.

100 Academicians Trained on IRPs in Workshop at GCU Faisalabad

Government College one-day Workshop on

PASTIC-Faisalabad in University Faisalabad (GCUF) Intellectual Property Rights collaboration with and IPO-Pakistan organized a

GCHF, PASTIC-PSF and IPO Projects Intellectual Property Rights

Prof. Dr. Muhammad Akram Shaikh, Director General, PASTIC/Member Science, PSF giving Introductory Remarks about the workshop

(IPRs) at GCUF on November 6, 2015.

The objective of the workshop was to orient the faculty members about the basics of IPRs and the essential requirements for its protection. Over 100 participants including deans, directors and senior faculty members attended the Workshop. Participants learned about the importance of IP rights, copyrights, trademarks, patents, industrial designs, trade secrets, drafting and filling of patent application.

Prof. Dr. Khalid Mehmood.

Director ORIC, GCUF welcomed the participants. Prof. Dr. Muhammad Akram Sheikh, Director General, PASTIC/Member Science, PSF gave the introductory remarks. Prof. Dr. Muhammad Ali (T.I.), Vice Chancellor, GCUF, was the Guest of Honor of the Workshop. He shared his views about the significance and requirement of such activities. He appreciated the efforts of PASTIC and GCUF in arranging the activity.

Mr. Zahoor Ahmad, IPO-Pakistan and Ms. Asma Tanveer, Asma Law Associates were the resource persons.

PASTIC Builds Capacity of Young Researchers in Reference Management

PASTIC organized a training workshop on "Research Tools & Techniques" on November 25-26, 2015 at PASTIC National Centre, Quaide-Azam University Campus, Islamabad. The objective of this workshop was to build the capacity of young researchers through utilization of Mendeley Research Tool used for reference management.

About 20 participants including faculty members/M. Phil/ Ph. D research scholars from various universities attended the workshop. Ms. Nageen Ainuddin, Director PASTIC, while addressing the workshop said that in this digital age of technology IT-



Group Photo of the Workshop participants

based scientific research tools are useful to make the research process easier and faster.

Syed Habib Akhter Jaffri, Principal Librarian, PASTIC was chief organizer of this workshop while Dr Maryum Ibrar Shinwari, Senior Scientific Information Officer PASTIC was the key resource person. At the end of workshop Ms Nageen Ainuddin, Director PASTIC, distributed certificates among the participants.



Mrs. Kauser Sohail, Sr. Scientific Information Officer, briefs students of Sindh Agriculture University, Tandojam, about the organization's services during their visit to the PASTIC National Centre, Islamabad.

PSF Chairman Reviews PASTIC Performance

Prof. Dr. Muhammad Ashraf Chairman PSF held a review meeting of PASTIC on November 12, 2015 at PASTIC. He reviewed the activities of all the sections and provided guidelines for improvements in the light of changing scenario of this digital age and making the organization vibrant. The Chairman also emphasized on mobilizing PASTIC Sub-Centres for developing linkages with Industry and Chambers of Commerce as well as identification of their problems and issues.

Workshop on Key Performance Indicators

PASTIC took an initiative to improve performance by organizing a training workshop on the concept of Key Performance Indicators (KPIs) for the officers of PASTIC, PMNH and PSF on November 26, 2015 at PASTIC. The objective of this workshop was to promote the development of robust governance by establishing a benchmark for good governance in the PASTIC, PMNH and PSF.

The Resource person, Dr. Atiqur-Rehman, Executive Director Asian Centre of Organization Development and training, Consultant of World Bank and other renowned organizations enlightened the officers with an introduction about the concept of KPIs in detail and how to design KPIs from the point of view of organizations and projects.

Secretary S&T and DG PASTIC Attend Training Programme in Seoul

Mr Fazal Abbas Maken, Federal Secretary S&T and Prof. Dr Muhammad Akram Shaikh, Director General, PASTIC participated in "2015 KISTEP-ISTIC S&T Policy Innovation Training Programme for High Level Policy Makers" at Seoul, Korea on November 23-27, 2015. In this Training Programme 22 representatives from 18 countries participated.



A group photo of the participants of 2015 KISTEP-ISTIC S&T Policy Innovation Training Programme for High Level Policy Makers" at Seoul, Korea.

PASTIC Services at Doorsteps of Universities / Institutions

Awareness Seminar at Islamabad: PASTIC National Centre, Islamabad, arranged an orientation seminar about PASTIC Services on November 03, 2015 for the students of Department of Strategic Studies, Quaid-i-Azam University.

Mrs. Kauser Sohail, Senior Scientific Information Officer, PASTIC, delivered a presentation on PASTIC Information Services to the students. Mr. Obaid Anwar, Senior Scientific Information Officer, PASTIC gave a demonstration on Document Supply Service to the students.

Awareness Seminar at Quetta: PASTIC Sub-Centre, Quetta arranged a PASTIC Services Awareness Seminar for celebrating World Science Day at Sardar Bhadur Khan Women's University, Quetta on November 17, 2015. Students from various departments of University participated in the seminar. Mr. Faisal Hilal, Acting Assistant Director, Quetta Sub Centre, PASTIC, delivered a presentation on PASTIC Information Services to the students.

PASTIC Sub-Centre, Faisalabad: PASTIC Sub-Centre Faisalabad organized following PASTIC Services Stall at

- •Faculty of Agriculture, University of Agriculture, Faisalabad from November 11-12, 2015.
- •Faculty of Animal Husbandry, University of Agriculture, Faisalabad on November 18, 2015.
- •Faculty of Veterinary Sciences, University of Agriculture, Faisalabad on November 26, 2015.

A large number of students, researchers, faculty members visited the PASTIC stalls and availed the information services provided at the stall.

PASTIC Sub-Centre, Lahore: A PASTIC Services Stall was organized at PCSIR Laboratories Complex, Lahore in collaboration with PCSIR &PASS for Celebrating World Science Day from November 16-17, 2015 by PASTIC Sub-Center, Lahore.

Pakistan Science Foundation

Constitution Avenue, Islamabad Phone: 9201887, Fax: 9202468 www.psf.gov.pk E-mail: psfsecy@psf.gov.pk

Pakistan Museum of Natural History

Garden Avenue, Shakarparian, Islamabad Phone: 9249239 Fax: 9249240 www.pmnh.gov.pk

PASTIC National Centre

Q. A. University Campus, Islamabad Phone: 9248103-04, Fax: 9248113 www.pastic.gov.pk <u>E-mail: director@pastic.gov.pk</u>

Layout: Abdul Rasool, PMNH