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Pakistan Science Foundation

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# PSF NEWS

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## From the Chairman



Basically a primary school system imparts the knowledge and values which are considered essential in the culture of a country. The content, methods and practice of education at this level can have a determining influence on people's educational development throughout their lives, thus primary schools become more, not less, important. Strengthening science education at primary and secondary school level is imperative in Pakistan for For Innovation and Invention, as it would

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## 4th Invention to Innovation Summit - 2015

### PSF brings indigenous technologies, products under one-roof



Prof. Dr. Muhammad Ashraf, Chairman, Pakistan Science Foundation accompanied by Prof. Dr. Mujahid Kamran, Vice Chancellor, University of the Punjab, inaugurating the 4<sup>th</sup> Invention to Innovation Summit-2015 on March 4, 2015 at University of the Punjab, Lahore

Pakistan Science Foundation Technological Information Chairman of PSF, pledged to (PSF) brought hundreds of Center (PASTIC), University of provide every kind of support to indigenous technologies, the Punjab and Institute of the researchers if they really felt varieties, products, processes, Research Promotion (IRP). to bring productive output. He posters presentations and Experts from industry, asserted that PSF has a huge documentaries under one-roof a academia and R & D endowment fund and the regular in the 2-day "Invention to organizations participated in research support program to Innovation Summit-2015" held eight sessions of the summit and support scientific research on March 4-5, 2015 at identified industrial issues projects. The modalities of the University of the Punjab, which will be taken up jointly Act of PASTIC to meet the Lahore. The Summit was an by PSF, Academia and the contemporary needs are also annual activity of PSF under its Industry. being revised, he said. He stated R&D-Industry Program jointly Addressing inaugural session of that PSF would soon start organized in collaboration with the summit, Prof. Dr. Science Talent Farming Pakistan Scientific & Muhammad Ashraf, the new Program for which the





From the Chairman

*contribute significantly to integrating science into the mainstream of our culture. Moreover, greater confidence in dealing with science and technology is an important condition for technological innovation in the community and the development of an economy capable of maintaining its citizens into the 21st century. The present status of science and technology in the country also underlines the need for effective support to primary and secondary schools in preparing the students for invention, innovation and research by putting science in to effect. PSF has embarked upon a program focusing on science education in primary schools to bridge the missing link of science in primary to higher education. With the collaboration of U N E S C O the Foundation will also strengthen science labs in schools of rural areas. This task requires the role of the wider community, in particular the scientific community, in supporting the schools for a continuing supply of people with advanced training in science and technology. All the stakeholders are invited to join hands with PSF to achieve this objective for development, peace and prosperity of the country.*

government has already allocated funds. He appreciated the organizers of the Summit and urged them to bring public-private sector stakeholders together for cementing Industry-Academia Linkage in Pakistan.

Dr. Mujahid Kamran, Vice Chancellor, University of the Punjab, called for more funds and support for education sector by different organs of the state and urged researchers to keep their devotion intact for generation of new knowledge. The nations who do not create new knowledge lose the reason



Prof. Dr. Muhammad Ashraf, Chairman, Pakistan Science Foundation accompanied by Prof. Dr. Mujahid Kamran, Vice Chancellor, University of the Punjab, visiting different stalls of an exhibition during the 4th Invention to Innovation Summit-2015 on March 4, 2015 at University of the Punjab, Lahore

to existence, he said. Mr. Abid Sherwani, Chief Executive Officer, IRP, briefed the participants about the journey of the series of summits, he dreamed way back in 2012.

## Tripartite accord soon to hold Invention to Innovation Summits



Prof. Dr. Muhammad Ashraf, Chairman PSF, Dr. Aamir Ejaz, Director ORIC, University of the Punjab and Mr. Abid Sherwani, Chief Executive Officer, IRP hold a meeting at PSF

Pakistan Science Foundation Industry Linkages in Pakistan. (PSF), University of the Punjab It was decided in a meeting and Institute of Research among Prof. Dr. Muhammad Promotion (IRP) will very Ashraf, Chairman PSF, Dr. Aamir Ejaz, Director ORIC, University of the Punjab and Mr. Abid Sherwani, Chief Executive Officer, IRP. The

meeting was held at PSF on March 26, 2015.

Prof. Dr. Ashraf stressed upon the importance of annual Invention to Innovation summits held consecutively in last four years jointly by PSF, University of the Punjab and IRP. The Chairman said that their collaboration's documentation is imperative in the wake of increasing interest of industrialists, academia and R&D organizations for organizing the upcoming summits more systematically. It was decided that an agreement in this regard will be signed soon by the heads of the three organizations

## PSF, EU Discuss Road Map of Awareness on Innovation, Research Program

Pakistan Science Foundation (PSF) and European Union (EU) discussed a road-map on March 11, 2015 to reach the highest possible degree of awareness in Pakistan about EU Research and Innovation Program HORIZON 2020 to build a science bridge between the EU and Pakistan.

Mr. Stenfano Gatto, Deputy Head of EU Delegation to Pakistan, called on Prof. Dr. Muhammad Ashraf, Chairman PSF. Both the sides discussed future plans such as establishment of PSF as a



Prof. Dr. Muhammad Ashraf, Chairman PSF and Mr. Stenfano Gatto, Deputy Head of EU Delegation to Pakistan, discuss collaborative programs at the former's office on March 11, 2015

National Contact Point (NCP) techno-preneurs at Peshawar, by the Ministry of Science and Technology (MoST), arranging submission of joint research awareness seminars for proposals to EU. It is pertinent to mention that



PSF has been declared as the focal organization of Science and Technology for EU Program HORIZON 2020 by the Government of Pakistan. Prof. Dr. Muhammad Ashraf

assured Mr. Stefano Gatto that PSF in collaboration with EU Delegation to Pakistan, MoST and other stakeholders would play its role in disseminating information on HORIZON 2020 through seminars at the federal and provincial levels to improve the understanding of how the program operates. The EU has launched the new Research and Innovation

Program HORIZON 2020 which allows significant funding to non-EU Member States, offering a country like Pakistan a number of opportunities.

## Austrian Nobel Laureate Visits PSF

Pakistan Science Foundation (PSF) and International Institute for Applied Systems Analysis (IIASA), Austria, will explore opportunities of collaboration for research studies on energy and climate change, food and water and poverty and equity.

It was decided in a meeting between Prof. Dr. Pavel Kabat, Chief Executive Officer IIASA and Prof. Dr. Muhammad Ashraf, Chairman PSF on March 19, 2015. Prof. Kabat, who is a co-recipient of Nobel Peace Prize 2007 and a Member of Steering Committee for EU Research Program Horizon 2020, along



Nobel Laureate Prof. Dr. Pavel Kabat, Chief Executive Officer IIASA and Prof. Dr. Muhammad Ashraf, Chairman PSF discuss collaborative programs at the latter's office on March 19, 2015

with Dr. Margaret Goud Collins, Foreman University and Dr. Muhammad Arshad, an expert on Energy and Climate Change, also attended the meeting. Dr. Kousar Abdullah, Professor at Christian

It was decided in this high level meeting that PSF will focus on internationalization. The Foundation with the collaboration of international bodies will create opportunities of funding for international research projects.

It is pertinent to mention that IIASA is an international scientific institute that conducts policy-oriented research into problems that are too large or too complex to be solved by a single country or academic discipline. Over 300 scientists, economists and engineers from over 45 countries carry out research at IIASA, Austria.

## UNESCO, PSF to strengthen science labs of rural area schools

UNESCO and Pakistan Science Foundation (PSF) will join hand to strengthen science labs of rural area schools in the country, it was decided in a meeting between Prof. Dr. Muhammad Ashraf, Chairman PSF and Ms. Vibeke Jensen, Director UNESCO Pakistan on March 17, 2015.

Prof. Dr. Muhammad Ashraf, the new Chairman of PSF, paid a courtesy call on Ms. Vibeke Jensen, who also has recently joined as the Country Director UNESCO Pakistan. UNESCO

and the Foundation have a longstanding collaboration to promote science culture in the country. During their meeting it was decided that UNESCO will provide science kits for rural area schools to strengthen their laboratories. These kits will be distributed to schools through PSF.

Both the sides also reviewed the ongoing collaborative initiatives such as Man and Biosphere (MAB) program and celebrations of World Science Day etc. The future



Prof. Dr. Muhammad Ashraf, Chairman PSF and Ms. Vibeke Jensen, Director UNESCO Pakistan discuss joint initiatives on March 17, 2015

collaborative programs that R&D research projects and came under discussion included efforts for declaration of new biosphere reserves in the strengthening of labs in schools of rural areas, joint funding for country.

## PSF, France Embassy explore Avenues of Cooperation in Science



Prof. Dr. Muhammad Ashraf, Chairman PSF and Mr. Alban Schwerer, Scientific and Higher Education Attache, Embassy of France discuss collaborative programs

Pakistan Science Foundation Chairman PSF on March 26, (PSF) and Embassy of France in 2015. Dr. Mirza Habib Ali, Pakistan here on Friday PSF's Focal Person for explored avenues of International Linkages, also cooperation in joint research projects to strengthen science and technology base in Pakistan.

Mr. Alban Schwerer, Scientific and Higher Education Attache, Embassy of France, called on Prof. Dr. Muhammad Ashraf, for international collaboration



is very broad as the Foundation works for development and promotion of science in schools right from primary to higher secondary level, higher education institutions such as universities and centers of excellence as well as R&D organizations. Both sides discussed collaboration in joint research projects and post-doctorate scholarship programs. Dr. Ashraf sought the France

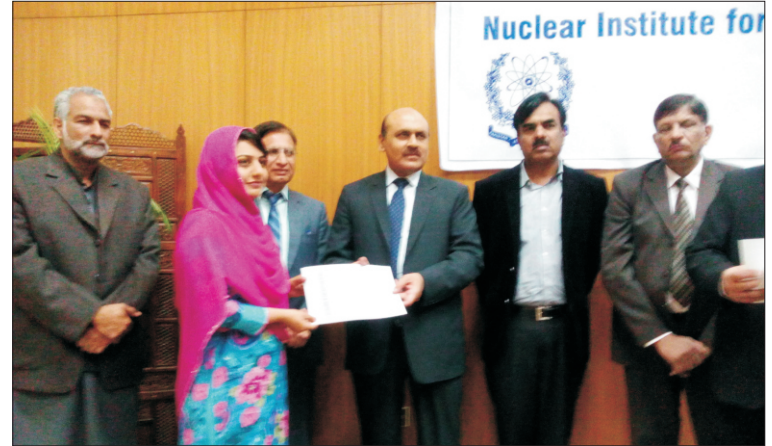
Embassy's cooperation in the They also discussed PSF's program to revamp announcing calls for research science labs in rural area proposals and post-doctorate schools. He said PSF is focusing scholarship programs through on bridging the missing link of the platform of PSF so that the science in primary to higher information may reach to education. maximum people.

## Primary Schools in Focus for Science Education



Prof. Dr. Muhammad Ashraf, Chairman PSF, chairs the concluding session of the training course at NIAB, Faisalabad

Prof. Dr. Muhammad Ashraf, Faisalabad on March 10-13, 2015. In his address, the Chairman highlighted the role of 5th Training Course on of PSF in promotion of science through funding for research "Modern Techniques in Research on Abiotic Stress Tolerance in Plants" held at Dr. Ashraf said that the scope of NIAB (Nuclear institute of PSF for national and Agriculture Biology) international collaboration is



Prof. Dr. Muhammad Ashraf, Chairman PSF, awards certificate to a participant of the training course at NIAB, Faisalabad

very broad as the Foundation focusing on bridging the works for development and missing link of science in promotion of science in schools primary to higher education. right from primary to higher The Chairman also spoke on secondary level, higher Abiotic Stress Tolerance in education institutions such as Plants and called for value universities and centers of addition of agricultural excellence as well as R&D products for getting maximum organizations. He said PSF is earning out of the yield

## NSLP Team Monitors Research Projects to Achieve Promising Results

PSF under its Natural Sciences Muhammad Ashraf, Dr. Mirza Linkage Program (NSLP) is providing financial assistance to 77 research projects and amongst them 12 are running successfully in two institutes of Peshawar, while six are ongoing in Nuclear Institute for Food and Agriculture (NIFA) and six at the University of Agriculture, Peshawar. During the visit, the team observed that all the projects were running smoothly. The Chairman PSF met the Principal



The Chairman PSF, Prof. Dr. Muhammad Ashraf, with the Principal Investigators of NSLP funded projects at NIFA

Investigators and explained Foundation for submitting them new priorities of the research projects under NSLP.



The Chairman PSF, Prof. Dr. Muhammad Ashraf, monitors the progress of PSF funded project on mushroom cultivation at NIFA



The Chairman PSF, Prof. Dr. Muhammad Ashraf monitors the progress of NSLP funded project on Stevia rebaudiana at NIFA



## Prof. Dr. Ashraf to join British Alumni Association as Ambassador

Prof. Dr. Muhammad Ashraf, Chairman Pakistan Science Foundation (PSF), will join the British Alumni Association as Ambassador.

In a meeting between Prof. Dr. Ashraf and Ms. Sarah Parvez, Manager Higher Education and Skills, British Council, at Pakistan Science Foundation on March 26, 2015 joint projects and increase in number of Pakistani students participating in London



Prof. Dr. Muhammad Ashraf, Chairman PSF and Ms. Sarah Parvez, Manager Higher Education and Skills, British Council discuss joint projects at Pakistan Science Foundation on March 26, 2015

International Young Scientists PSF and British Council Forum (LIYSF) held annually every year jointly arrange participation of four-five

Pakistani students in LIYSF. Following strict criteria of merit, PSF selects science students for participation in the Forum for providing them an opportunity to interact with students from the different countries which helps them broaden their vision to conceive new scientific ideas. PSF provides funds for students travelling and boarding. From this year onwards, the number of Pakistani students participating in the LIYSF will be almost doubled.

### Participation in Popular Talk on "Stream Algebra for Computer Vision Pipelines"

Two officials of PSF namely Miss Zaiban Farooq and Mr. Farukh Bashir participated in a popular talk on "Stream Algebra for Computer Vision Pipelines" held at NINVEST (National Institute of Vacuum Science and Technology) on March 27, 2015. The talk was delivered by Dr. Faisal Qureshi, Associate Professor, Computer Sciences, University of Ontario, Institute of Technology (UOIT), Oshawa, Canada. The lecture covered stream algebra which is a mathematical description of vision pipelines and manipulation of image and video streams covering efficiently processing, analyzing, transmitting and archiving the data.

### Quote of the Month

We live in a society exquisitely dependent on science and technology, in which hardly anyone knows anything about science and technology.

—Carl Sagan

### PSF Team Visits Business Incubation Centre

Dr. Mirza Habib Ali, Team Chemicals Ltd. who is the Leader and Mr. Irfan Ahmad, graduate of Institute of SO-R&D Industry Program University of the Punjab, visited Business Incubation Centre at Office of Research as an entrepreneur, with Innovation & Business Incubation Centre of Commercialization (ORIC), ORIC. PSF and ORIC, PU have University of the Punjab, pledged to bring more success stories alike through the research projects of industry SOPs of ORIC office for academia mutual collaboration Technology Incubation. Imran under R & D - Industry Niaz Khan, CEO, ENVIRAM Programme of the Foundation



Dr. Mirza Habib Ali, Team Leader, R&D Industry Program with Director, ORIC, University of the Punjab, Lahore at Business Incubation Centre, ORIC, PU, Lahore. Mr. Imran Nazir Khan, CEO, ENVIRAM Chemicals and Dr. Amir Shafique, Deputy Director, ORIC, PU are also present.

### Screening Committee Reviews Research Proposals under NSLP

The Chairman Pakistan Science Foundation/Chief Executive 17 and March 19, 2015 NSLP, Prof. Dr. Muhammad respectively, presided over by Ashraf has constituted a the Chairman PSF, Chief Screening Committee of PSF to Executive, NSLP. The review research proposals Committee reviewed 45 projects received by the Foundation for in these meetings keeping in funding. Two meetings of the view the national needs.

### PSF to fund only need-based research projects

Pakistan Science Foundation will provide funding for only need-based research projects having direct benefit to common man, Prof. Dr. Muhammad Ashraf, Chairman PSF, issued this direction during weekly progress review meeting on March 16, 2015. The meeting was attended by BPS-19 and above officers of the Foundation. The Sectional Heads presented weekly progress of their sections. Addressing the Meeting, Prof. Dr. Ashraf said that the Foundation would focus on research which is need of the industry for achieving goals of national development through science and technology. He also directed the scientists to avoid utmost duplication of research projects and take utmost care in this regard.

The Chairman directed the Sectional Heads to complete the assignments within specific timeline and no pendency of the work will be tolerated. It was decided that onwards the Weekly Progress Review Meeting will be held on every Friday at 3:00pm.



## PSF to Encourage Problem Solving Research, Chairman Assures FCCI

Prof. Dr. Muhammad Ashraf, Commerce and Industry (FCCI) Vice President FCCI, Inaam Afzal Khan Vice President FCCI and others attended the meeting. Engr. Rizwan Ashraf, President FCCI, Nadeem Iqbal, Senior Importance of industry-



Engr. Rizwan Ashraf, President FCCI, Prof. Dr. Muhammad Ashraf, Chairman PSF and others speak at a function at FCCI.

academia linkages, issues of the industry including skilled manpower crisis, development of human resource, processing of agricultural products and value addition of products etc came under discussion. The Chairman assured the Chamber that PSF would encourage problem solving research in future while keeping in view the difficulties of the end-users.

## Ministry Highlights S&T Achievements on Pakistan Day

The Ministry of Science and Technology (MoST) Float participated in Pakistan Day's Joint Services Parade on March 23, 2015 at the Parade Ground, Shakarparian, Islamabad to highlight achievements in the field of science and technology. The Ministry assigned the task of float preparation to the officers including Dr. S. Zaheer Hussain, Assistant Scientific Advisor Policy and Coordination Wing as the Ministry's Focal Person, Mr.

Rahat Saeed, Operational Manager PMNH, Mr. Muhammad Abbas, Associate MoST and its attached Curator PMNH and Syed Nusrat Hussain Zaidi, Senior Graphic Artist PSF. The staff of departments including PSF



MoST Float showcases S&T Achievements during Pakistan Day Parade on March 23, 2015

worked day and night for fabrication of the float in shortest possible time and showcased it in the event held after a gap of seven years. PSF displayed its story boards and two animated dinosaur models and stuffed animals from PMNH which attracted attention of the crowd.

The highest level leadership, general public and print as well as electronic media largely appreciated the float. This success was only due to the devotion of MoST team and vision of its top management.

## PSF Installs Stall at SASI Launch & Educational Marketplace



PSF stall at SASI Launch & Educational Marketplace

The School Assessment for School Improvement (SASI) with an emphasis on showcasing SASI's one year journey, SASI's 7th Marketplace event was held on March 26, 2015 at Ramada Hotel, Islamabad. They also invited PSF for arranging its stall on this occasion. The PSF set up a stall showcasing some scientific literature provided by the Foundation to schools.

**Jaffarabad Unit:** Science Caravan Jaffarabad Unit arranged Speech Competition and Science Exhibition at Govt. Boys High School Usta Muhammad, District Jaffarabad on March 23 to celebrate Pakistan Day. About 285 students and 45 teachers from 18 schools participated. Chairman Municipal Committee Usta Muhammad Mir Amir Khan Jamali was the Chief Guest. Deputy Director



A group photo of the students and teachers at Science Centre, Faisalabad

## Science Caravan Activities



Pakistan Day Celebration by Science Caravan Jaffarabad Unit

Social Welfare Ms. Khurshid Qasim, Social Welfare Officer Ghulam Murtaza Jamali, DDO Education Jaffarabad Jan Muhammad Soomro and other high officials and members of Press Club attend the event. The Chief Guest distributed prizes among the winner of speech competition.

**Faisalabad Unit:** The Science Caravan Faisalabad Unit organized Science exhibition on March 24-27 at Government

Millat Degree College, Ghulam-Muhammadabad Abad, Faisalabad. More than 300 college students, 75 dignitaries as well as 200 general public visited the PSF Science Exhibition. About 100 people including 79 students and teachers from Seerat Public High School, Faisalabad visited the PSF Science Centre on March 28, 2015. The maintenance work of the Centre was also carried out.



# Pakistan Museum of Natural History (PMNH)

Editor: Dr. Saleem Ahmad, Director PSD

## PMNH celebrates World Wildlife Day

Pakistan Museum of Natural History (PMNH) in collaboration with Ministry of Science and Technology, PSF, US Embassy, Snow Leopard Foundation and Key Foundation, arranged different activities to celebrate the World Wildlife Day on March 3, 2015. A large number of students, teachers and scientists from different organizations attended the celebrations. Prof. Dr. Muhammad Ashraf, Chairman, PSF, was the Chief Guest of the inaugural ceremony of World Wildlife Day celebration at PMNH on March 3, 2015.

Dr. Muhammad Rafiq, Deputy Director General, PMNH, said that World Wildlife Day was celebrated to sensitize the world community on illegal wildlife trade, trafficking and efforts for wildlife conservation. Syed Mahmood Nasir, Inspector General Forest, Climate Change Division, said animals and plants are essential parts of the ecosystems on which man depends directly or indirectly. He said the students have an important role to play in halting illegal trade of wildlife.

Mr. Ashiq Ahmed Khan, Senior Advisor, Snow Leopard Foundation, in his keynote address said that serious crime is being committed against wildlife even in many developed countries. He appreciated efforts in Pakistan for the conservation of Ibex, Indus dolphin and the Ziarat Juniper Forest.

Dr. Muhammad Ashraf, the Chief Guest of the ceremony, said a slight change creates large effect on the whole ecosystem as there are interactive effects between different living things. "If this



Professor Dr. Muhammad Ashraf, Chairman, PSF, addressing the inaugural ceremony of World Wildlife Day as chief guest.

ecosystem is balanced and sustained, our life is sustained," he added. The Chairman hoped that recommendations devised by participants of the symposium would be sent to the government and concerned quarters for implementation. Students presented a tableau on wildlife hunting. A speech competition among students was held and prizes and certificates were awarded to winners. A documentary was also screened to highlight different aspects of wildlife trade.

A symposium covering important aspects of Illegal Trade and Trafficking of Wildlife was also arranged, which was attended by researchers and professionals from various organizations. Dr. Muhammad Rafique, Deputy

Director General, PMNH, delivered presentation on fish fauna. Dr. Muhammad Ali Nawaz, Country Director, Snow Leopard Foundation, deliberated on Wildlife Issues, Crimes, Illegal Trade and Trafficking of Carnivores and other Mammalian Fauna of Pakistan. Dr. Khalid Mahmood, Curator, ZSD, Dr. S. Aneel Gilani, Associate Curator, BSD, Mr. Rafaqat Masroor, Research Associate, ZSD and Mr. Hamad ur Rehman, Research Associate, ESD, delivered thought provoking presentations on various aspects of Illegal Wildlife Trade. At the end a Group Discussion was held among the participants and guests and Recommendations for controlling the illegal trade of flora and fauna of Pakistan were prepared.



Judges evaluating the students' speech competition on World Wildlife Day on 3rd March at PMNH

## Students keep on visiting PMNH

During the month a number of student groups from various educational organizations visited the PMNH Display Centre.

They were provided guided visit facility by the Guides and PMNH scientific staff. In March, over 1900 students visited the Display Centre of PMNH. Notable student groups came from Geology Department, AJK University, Mazaffarabad; Superior College, Mianwali.

## PMNH Geologists provide guidance to Haripur University students

Dr. Muhammad Khan Leghari, Director General, PMNH and Dr. Ghazal Roohi, along with the geologists of ESD, PMNH, participated in one-day seminar on Palaeontology and Geology of Pakistan at University of



Group Photo of DG, PMNH and Director and officers of Earth Sciences Division, PMNH, with Faculty of Department of Geology, University of Haripur

resources of Pakistan. Eighty three students and newly appointed Faculty of Department of Geology, University of Haripur, were provided guided tour of from 9th 13th March, by Mr. Hamad-ur-Rahim, Research Associate, ESD. The main areas of visited were Khewra Gorge, Nammal Gorge, Pial Katha area and Zaluch Nala. This activity is a part of MoU signed between PMNH and the Department of Geology, University of Haripur.



# Pakistan Scientific & Technological Information Centre (PASTIC)

Editor: Syed Aftab Hussain Shah

## PASTIC Organizes Training Workshop on “Digital Content Management”

A 3-Day basic hands-on Training Workshop on “Digital Content Management” was organized from 18-20 March, 2015 at PASTIC National Centre, Islamabad. The objective of this workshop was to build the capacity of librarians and information personnel to enhance their professional skills in digital data management for the development of library archives using latest IT tools.

Prof Dr Muhammad Akram Shaikh, Director General, PASTIC, welcomed the participants and gave brief introduction of his organization. He emphasized the role of PASTIC in capacity building by organizing workshops and trainings for researchers, scientists and information professionals for preparing them to meet the challenges of this information age, information resource sharing and exchange of information. Senior Librarian PASTIC, Syed Habib Akhter Jaffri while explaining the objectives of the workshop said that this training will familiarize the librarians



Prof. Dr. Ghulam Raza Bhatti, Member HRD, HEC, Dr. Muhammad Ashraf, Chairman PSF, Dr. Khalil Ahmed Ibupoto, Member Science PSF, Prof Dr Manzoor H. Soomro, President ECO-SF, Prof Dr M. Akram Shaikh, DG PASTIC, Syed Habib Akhter Jaffri, Sr Librarian at the Inaugural Ceremony of the Workshop

with the specialized “Digital Content Management” tools like GENISIS, Calibre, Greenstone and DSpace. Chairman PSF, Prof Dr. Muhammad Ashraf said that in this digital era, one cannot emancipate from knowledge of Information Technology. As libraries are entirely dependent on IT tools for information handling & management, therefore learning advance tools for information dissemination of information retrieval is their dire need.

The Chief Guest Prof. Dr. Ghulam Raza Bhatti, Member Human Resource Development (HRD), Higher Education Commission (HEC),

emphasized the importance of learning advance digital tools for information personnel as custodians of the information. He appreciated the role of persons.

PASTIC in this connection. He hoped that after getting this training the librarians would manage their digital contents efficiently and serve their user in a better way. About 40 librarians across Pakistan attended the workshop.

Prof Dr. Javed Ashraf, Vice Chancellor Quaid-i-Azam University was the Chief Guest at the Closing Ceremony of the Workshop and distributed certificates and shields among the participants and resource persons.

## Awareness Seminar at Quetta



PASTIC Awareness Seminar at Faculty of Chemical Sciences, University of Balochistan Quetta

PASTIC Sub Centre Quetta, Faisal Hilal, Acting Assistant Director (STI) delivered a detail Awareness Seminar at Faculty presentation on PASTIC of Chemical Sciences, Services. Students and research University of Balochistan scholars participated in this Quetta, on March 10, 2015. Mr. seminar.

## Information Services at Doorsteps of Universities

PASTIC regularly organizes its information services stalls at universities and R&D institutions to bring its services at the doorsteps of researchers.

PASTIC services stall was organized at Department of Physics, University of Balochistan Quetta on March 17, 2015 by PASTIC Sub Center, Quetta. A large number of students / researchers and faculty members visited PASTIC stall.



Prof Dr. Javed Ashraf, Vice Chancellor Quaid-i-Azam University distributing Certificates to the participants of Workshop

### Pakistan Science Foundation

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