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Chairman PAEC Inaugurates the 45th INSC

The 45th 'International Nathiagali Summer College (INSC) on Physics and Contemporary Needs' was inaugurated by Chairman PAEC Mr. Muhammad Naeem (HI, SI). INSC is a yearly activity being organized regularly since 1976 by Pakistan Atomic Energy Commission (PAEC). Chairman PAEC Muhammad Naeem appreciated the efforts of the organizers of INSC to hold this scientific discourse through webinars and continued the tradition of holding this college on regular basis because, unlike the previous years, Covid-19 made it impossible to gather participants from around the world at one place. The INSC 2020 covered six technical activities including applications of synchrotron radiation, the modern trends and techniques for exploration of minerals, pulsed power technology and applications, laser produced plasmas and its applications, renewable energy, environmental monitoring, advances in medical physics and biomedical optics.

The distinguished faculty of INSC consisted of 28 speakers from abroad like Austria, Brazil, China, France, Germany, Japan, UK, Turkey, USA and other countries. There were total 1200 participants from different universities of Pakistan. About 50 participants from abroad also registered for the webinars. Foreseeing the brain drain of scientific elite from developing countries like Pakistan to the advanced scientific hubs in search of greener pastures, the Nobel Laureate, Professor Abdus Salam was a staunch believer in utility of periodic bringing together of scientists from developing countries with those from developed nations. This was the guiding spirit behind the idea of organizing a science college at Nathiagali, one of the most beautiful and picturesque hill resorts of Pakistan near

Islamabad, on regular basis. In 1974, the distinguished professor proposed that an international forum for scientists from developing countries be organized to break their isolation and provide them with an opportunity to interact with their peers from advanced countries.

When Professor Abdus Salam put up his proposal to Pakistan Atomic Energy Commission (PAEC), Mr. Munir Ahmed Khan, the then Chairman PAEC, not only acceded to the idea, but also put his heart into it. He took personal interest to make the first college in 1976 a great success, which set a lasting tradition. The seed sown by Professor Salam has now blossomed into a lasting institution. Successive chairmen of the commission and the present Chairman PAEC Mr. Muhammad Naeem provided full support for holding of this annual activity.

Holding of the college regularly for last 45 years has given an opportunity to the junior scientists of Pakistan and other developing countries to share scientific research related problems with senior scientists of the world.

In the concluding session, the scientific secretary of INSC Dr. Javed Akhter gave an overview of the college activities in different sessions and thanked the participants for taking keen interest for the subject. He also thanked the faculty of the INSC for delivering very informative and thought provoking lectures and sharing scientific ideas with the participants.

He also appreciated the organizers of INSC for their untiring efforts to make this college a success during COVID-19. ■



Chairman PAEC and Member Science, PAEC addressing the participants of 45th INSC

Talk on “Lymphoproliferative Disorders” by Professor Julie M. Vose at INMOL

Professor Julie Vose, Head/Chief of the Oncology, University of Nebraska Medical Center (UNMC) visited INMOL on 25th February, 2020. She was welcomed by Dr. Abubaker Shahid, Director, INMOL. The opening remarks of programme were presented by Dr. Sadia Sadiq, SMO.

Professor Julie Vose delivered a talk on Diffuse large B-Cell Lymphoma, that was followed by a Question-Answer session. Three cases were presented, 1st case on CLL by Dr. Zahra Resident Hematology, 2nd case on Multiple Myeloma was presented by Dr. Umair, resident of Medical Oncology.

3rd Experience Sharing was done by Dr. Muneeb Nasir, PMO on Hodgkin Lymphoma. Each case was thoroughly reviewed & followed by an engaging discourse. The Session was also attended by officials of MINAR, Multan (online).

Concluding remarks were given by Dr. Abubaker Shahid, Director, INMOL.

At the end Professor Julie visited different departments of INMOL and appreciated the facilities and quality of treatment and services being provided to the cancer patients by INMOL.



Talk on “Lymphoproliferative disorders” by professor Julie M. Vose, MD, MBA, FASCO

NIFA organizes National Seminar on “Apple Diseases and Insect Pests”

Plant Protection Division (PPD) of Nuclear Institute for Food and Agriculture (NIFA), Peshawar organized “One Day National Seminar for Farmers on Awareness on Diseases and Insect Pests of Apple” on September 5, 2019 at Kalam, Swat in collaboration with Agricultural Research Institute (ARI), Mingora, Swat.

One hundred farmers attended the seminar from different apple growing areas of Swat. Director NIFA, Dr. Wisal Muhammad was the chief guest on this occasion. He highlighted the salient achievements of PAEC/NIFA and appreciated the R&D efforts of PPD on apple at NIFA in collaboration with ARI, Swat.

Various interactive sessions in local language were organized and scientists from NIFA and ARI, Swat

participated and problems of scab and other emerging diseases, major insect pests and nutrients issues in apple orchards and their management at field level were discussed. Dr. Syed Jawad Ahmad Shah, Principal Scientist, Plant Pathology Group Leader and chief organizer presented a comprehensive overview of the seminar.

During the course of technical discussion, the fruit growers showed keen interest and actively participated in discussions for gaining technical knowledge for achieving the goals of national importance.

Director NIFA, Dr. Wisal Muhammad distributed shields among seminar organizing committee and Mr. Alam Zeb, presented vote of thanks.



Director NIFA, ex Nazim Kalam Tehsil, organizer and resource persons addressing the seminar participants

NCNDT Provides Non-Destructive Inspection Services to Pakistan Refinery Limited (PRL)

The National Centre for Non-Destructive Testing (NCNDT), Scientific and Engineering Services (SES) Directorate continues to extend non-destructive inspection services to national industries.

Pakistan Refinery Limited (PRL) contacted National Centre for Non-destructive Testing (NCNDT) for in-service inspection (ISI) of three platforming reactor vessels 301-DN, 302-DN & 303-DN and a hydro-treater reactor 201-DN in their planned shutdown. NCNDT team comprising fourteen inspectors visited PRL to perform inspection activities. This was third ISI activity on three platforming reactors and second ISI on hydro-treater reactor.

The team carried out visual testing (VT), liquid penetrant testing (PT) & fluorescent magnetic particle testing (MT) for

detection of and sizing of surface and subsurface flaws.

While radiographic testing (RT) ultrasonic testing (UT) & time of flight diffraction (TOFD) technique used for detection of internal flaws (TOFD technique applied second time on this plant) and ultrasonic attenuation measurement, thickness measurements (UTM), crack depth measurement, non-destructive hardness testing at various locations and on site metallographic testing for life assessment of Reactor Vessels.

The comparative data of NDE results and recommendations has been conveyed to M/s PRL. NCNDT has been providing in-service services to this plant since 1991. M/s PRL management highly appreciated the NCNDT for its performance.



Data Acquisition of Platformer Reactor 301-DN with Motorized WeldRover Scanner by using Time of Flight Diffraction (TOFD) technique at Pakistan Refinery Limited by NCNDT personnel

Celebration of “International Day of Medical Physics 2019” at NORIN Nawabshah

Every year 7th November is celebrated as International Medical Physics day worldwide. Following the tradition, Medical Physics Division (MPD) at Atomic Energy Cancer hospital Nawabshah (NORIN) celebrated this event under the theme “Better Medical Physics = Better treatment in radiation oncology”.

Dr. Quratulain Soomro (Director NORIN), Muhammad Waqar (Head Medical Physicist NORIN) and Wasim Shehzad (Medical physicist) along with officers & staff of radiotherapy and other department's participated in the event.

Director NORIN underscored the significance of the day and said that without application of the latest tools of medical physics, cancer treatment would not be complete. Head MPD demonstrated the audience about the role of medical

physics in cancer treatment at NORIN, Nawabshah. In the end, souvenirs were distributed among radiotherapy staff.



Director NORIN with radiotherapy staff members

Webinar on PINSTECH-CERN Collaboration



Member science (PAEC), Dr. M. Masood-ul-Hassan addressing at the closing session of the webinar

The “Webinar on PINSTECH-CERN Collaboration” was organized by ALICE-CERN group, Physics division and Isotope Production Division from August 5-6, 2020. The main objective of the webinar was to spread the awareness, and impart knowledge among the scientific community of Pakistan and PAEC regarding the PINSTECH-CERN collaborations in different areas of science and technology particularly in high energy heavy ion physics.

D.G PINSTECH, Dr. Ammad Hussain Qureshi, inaugurated the webinar. In his inaugural address he described the history and importance of PAK-CERN collaborations. PINSTECH is an associate member of ALICE experiment at CERN and an MoU for collaboration between PINSTECH and CERN-MEDICIS which is a facility for production of novel radioisotopes at CERN is in progress. He emphasized the need for collaboration among various departments of PAEC and CERN. He praised the efforts of organizers and appreciated speakers from CERN for providing a platform to the scientists, engineers and researchers to share their research experience. More than 230 participants were registered from different universities and R & D departments of PAEC for the webinar.

This was a unique webinar in the history of PINSTECH to promote Science and Technology through PINSTECH-CERN collaborations. The technical session was started with a talk of Dr. Alexander P. Kalweit from CERN who gave

an over view of high energy heavy ion physics and quark-gluon plasma. The other speakers from CERN covered the excellent informative talks on ALICE detector and physics of ALICE. In the last talk of the session Dr. Federico Antinori, ex-spokesperson of ALICE, gave an over view of the Large Hadron Collider (LHC) and future plans of ALICE.

The second day of the webinar started with the talk of DG PINSTECH on the overview of development in science and technology at PINSTECH. The other talks were on PINSTECH' collaboration with CERN-MEDICIS and in accelerator technology. The speakers presented informed talks on isotope production and LINAC facility at PINSTECH. Dr. Charlotte Duchemin presented the CERN-MEDICIS/ISOLDE facility.

In the concluding ceremony, the chief guest, Member Science (PAEC), Dr. M. Masood ul Hassan, covered different aspects of the PAK-CERN collaborations and emphasised on collaborations to have the positive outcomes of this activity. He also appreciated the efforts of the organising committee and thanked the speakers of the webinar, particularly Federico Antinori and Luciano Musa for making this event successful. He also revealed his full support to enhance the Pak-CERN collaboration. Dr. Federico Antinori presented the summary of the webinar and highlighted the PINSTECH contribution for ALICE.



Group photo of the organisers and other officials of PAEC with member science, Dr. M. Masood ul Hassan

Accreditation of National Centre for Non-Destructive Testing, as a Certification Body from PNAC

National Center for Non-Destructive Testing (NCNDT), an institute of Pakistan Atomic Energy Commission (PAEC), has been accredited by Pakistan National Accreditation Council (PNAC) Ministry of Science and Technology, as a certification body for Personnel Certification Program in NDT. In this way, NCNDT has become the first personnel certification body accredited by PNAC as per Standard ISO/IEC17024:2012. PNAC as a member of International Accreditation Forum (IAF) is authorized in Pakistan to grant accreditation of personnel certification bodies. The International Atomic Energy Agency (IAEA) initially assisted Pakistan in the field of non-destructive testing by providing technical educational and training. However, for national and international recognition as a certification body, NCNDT accreditation was necessary to assure compliance and impartiality of the certification process. After this certification NCNDT can accredit Level I, II and III courses in radiographic, ultrasonic, liquid penetrants, magnetic particles, visual, Eddy Current and leak testing. Chairman PAEC Muhammad Naeem, HI, SI, congratulated Member Engineering Mr.

Aslam Umer and NCNDT management and his team for this achievement. Since NCNDT is working as regional training center for IAEA, It will be able to award certification to international students as well. Pakistan Nuclear Regulatory Authority(PNRA) has authorized NCNDT to perform pre-service and in-service inspections of Nuclear Power Plants for which NCNDT will seek PNAC accreditation.



GINUM holds 10th Biennial Medical Conference



Group photo of participants with Health Minister Dr. Yasmeen Rashid

10th Biennial Medical Conference under the umbrella of Pakistan Medical Association was held at GINUM. This activity of PMA in collaboration with GINUM played a major role in providing a platform for academic and awareness

activities under the able guidance and hard work of PMA.

The main objective of this comprehensive conference was to highlight current trends and latest research in various specialties. The topics presented were highly informative for their pertinence and relevance to major health concerns at all levels of practice. Eminent doctors, PG Students and well reputed academicians from Lahore, Gujranwala attended the conference.

On this occasion Prof. Dr. Yasmeen Rashid., Health Minister Punjab, was the chief guest and she appreciated the forum and emphasized the importance of organizing more of such events in future for knowledge sharing and continued medical education. Prof. Dr. Muhammad Ashraf Nizami., Delivered his state of art lecture on Medical Education, Ethics & Health Delivery System at the inaugural ceremony.

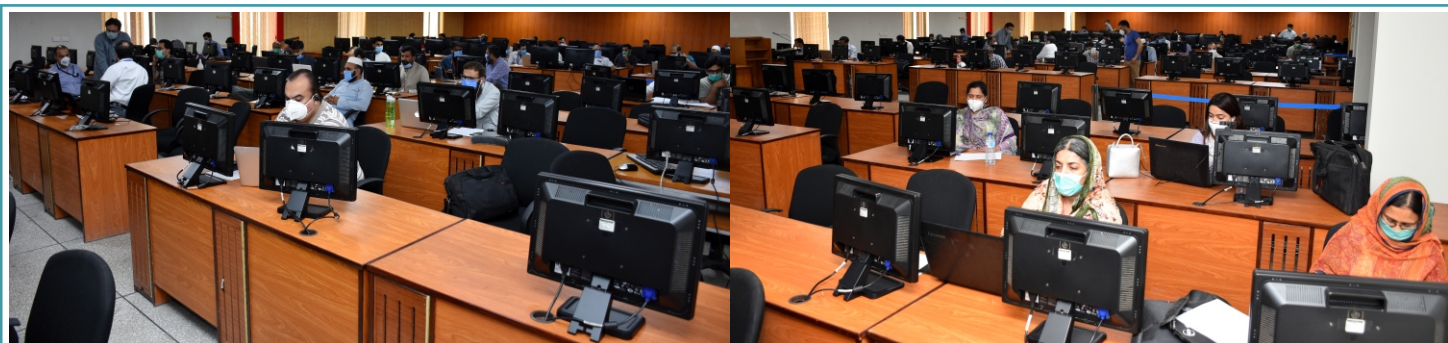
The three-day conference consisted of six scientific sessions in which wide range of topics were discussed including most cutting edge researches, current guidelines, traditional practices which provided valuable information for audiences and providing physicians with lifelong learning opportunities.

PIEAS Offers Online Instruction and Assessment during the Pandemic

Keeping its high academic standards and the tradition of imparting quality education, PIEAS offered online instruction and assessment during the pandemic. Instituting online classes and digital education in low resourced settings was greatly supported by the PAEC, and the leadership of PIEAS.

PIEAS following the guidelines of Higher Education

Commission (HEC) remained proactive throughout the pandemic providing intensively effective and equitable e-learning. The online learning management system deployed by PIEAS registered 240 courses and provided technical support to five institutes aggregating 189 faculty members and 1163 students.



View of the participants at PIEAS lab during the pandemic

Training Course on Nuclear and Other Advanced Techniques in Agricultural & Biological Research

NIAB organized a two-week Post-Graduate Training Course, which was attended by 32 participants representing multi-disciplinary organizations and academia from all over the country.

The concluding ceremony of the Course was graced by Dr. Ghazanfar Ali Khan, Managing Director Punjab Seed Corporation. While addressing the audience, the Chief Guest stressed upon the importance of improved research methodologies as well as strong liaison between all the component parts and stakeholders for better solutions of the challenges of modern times. He highlighted the significance of joint venture among the research organizations, industry and academia.

Earlier, the Director NIAB, Dr. Iftikhar Ali, in his welcome

address, emphasized the role of NIAB for the services of mankind at a wider scale. He added that food, feed and raw material requirement of ever growing population cannot be met without addressing the challenges of modern era. He accentuated that the scientists are consistently finding new ways to make their products even better for the end users.

Dr. Iftikhar Ali thanked the course participants to be the part of this event and making it a real success, and encouraged the Course organizer Dr. Shahid Nadeem and his team to keep on working with the same spirit. The successful candidates were awarded certificates by the Chief Guest, whereas the Director NIAB presented a shield to the Luminary. The Course ended with a note of thanks by Mr. Mujahid Hussain, Head, Animal Sciences Division, NIAB.



Participants with Chief Guest Dr. Ghazanfar Ali Khan, MD, Punjab Seed Corporation and Dr. Iftikhar Ali, Director NIAB

KINPOE Organizes Training Workshop on Experimental Physics and Industrial Control System (EPICS)

A training workshop was organized by “Karachi Institute of Power Engineering (KINPOE)” on Experimental Physics and Industrial Control System (EPICS) during 20 - 24 January, 2020. EPICS is an open source software toolkit collaboratively developed and used worldwide to create real time Distributed Control System (DCS). EPICS is being used at various establishments of PAEC mainly including Full Scope Simulators of Nuclear Power Plants and other industrial projects. The prime focus of this workshop was to train scientists and engineers with fundamental knowledge of EPICS and its tools through lectures and hands-on sessions. General Manager (KANUPP), Mr. Asif Rajput Inaugurated the workshop, followed by a Keynote speech by Mr. Tasaddaq Ali Khan, PS (ICCC).

Personnel from different establishments of PAEC and other organizations working in a variety of areas participated in the workshop. The participants were introduced with the fundamental concepts of EPICS and its integration with MATLAB. They were trained to design PID controller in

EPICS and tuning of that controller by simulating a tank liquid level system process dynamics in MATLAB. The participants were further familiarized with Control System Studio (CSS), a GUI development tool of EPICS. Besides lectures, several hands-on sessions were arranged for the participants.

Moreover, the participants were also introduced to the EPICS based DCS hardware consisting of different controllers, indigenously designed and developed at KINPOE.

The workshop was convened by Dr. Adeel Abbas, PE (KINPOE) and the resource persons of the workshop were Dr. Zia-ul-Haque Qazi, PS (KINPOE) and Mr. Fahad A. Aziz Wallam, SE (KINPOE). The feedback of the participants was very encouraging with the suggestion of more such workshops in future. At the end of the workshop, certificates and souvenirs were distributed to the participants and guests.



Group Photo of participants with Director KINPOE

Seminar on Updates on Prostate Cancer at PINUM

World Cancer Day aims to save millions of preventable deaths each year by raising people's awareness about cancer. To celebrate World Cancer Day, Oncology Department of PINUM Cancer Hospital arranged a one-day seminar “Updates on Prostate Cancer” on 29th February 2020.

Dr. Zafar Ali Choudhry, Vice Chancellor, Faisalabad Medical University (FMU) Chaired the event and praised the efforts of PINUM for holding such an informative event. Dr. Abubaker Shahid, Director INMOL, Lahore participated as Guest of Honor.

Dr. M. Babar Imran (T.I), Director, PINUM welcomed the honorable guests. In his address, Director PINUM briefed about the recent developments in Institute for the optimal management of cancer patients.

Prof. Dr. Zahid Iqbal, Head Urology Deptt, Abwa Medical College, Faisalabad delivered a lecture on “Intermittent Androgen Deprivation Therapy in Prostate Cancer”, Dr. Asif

Masood, Consultant Oncologist, Shifa International Hospital, Islamabad delivered a lecture on “Management of Castration Resistant Prostate Cancer”, Dr. Abubaker Shahid, Director, INMOL, Lahore gave a presentation on “Role of Theranostics in Prostate Cancer”. A Q&A session was also arranged. Shields and Certificates among the participants were distributed at the end.



Dr. Abubaker Shahid, Director INMOL during Q&A Session

Excellence in Science & Technology is the Key to Sustainable Development: Chairman PAEC



Group photograph of participants with Chairman, PAEC, Mr. Muhammad Naeem, HI, SI; Member (Science), PAEC, Dr. Muhammad Masood ul Hasan, PoP; and Rector, PIEAS, Dr. Nasir M. Mirza.

Chairman, Pakistan Atomic Energy Commission (PAEC), Mr. Muhammad Naeem, HIS, SI, inaugurated the "International Workshop on 2D Materials and Quantum Effect Devices" at Pakistan Institute of Engineering and Applied Sciences (PIEAS).

Speaking at the occasion, he emphasized that excellence in science & technology is the key to sustainable development. He admired PIEAS for its commitment to academics and research in specialized fields. The Chairman also expressed satisfaction to witness the strong participation of foreign experts in the workshop. He emphasized facilitation for increasing the number of local

participants of such events so as to benefit presence of highly qualified international experts.

Member (Science), PAEC, Dr. Muhammad Masood ul Hasan, PoP, was also present at the occasion. He also attended the first technical session of the workshop and applauded the efforts of PIEAS for organizing such events. The 2D materials and quantum effect devices is a multidisciplinary workshop at PIEAS. It is devoted to fundamental and applied aspects of 2D materials (such as graphene, MoS₂, WS₂, MoSe₂, etc.) and quantum effect devices.



Chairman, PAEC, Mr. Muhammad Naeem, HI, SI, addressing the participants of the workshop