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PAEC-IAEA Research Coordination Workshop on "Use of Irradiation to Ensure Hygienic Quality of Fruits, Vegetables and Foods" PAEC to install Irradiation Plants for enhancing shelf life of perishables to give boost to exports

Pakistan Atomic Energy Commission plans to install irradiation plants in various parts of the country to enhance the shelf life of fruits, vegetables and food items for giving boost to exports.

This was stated by Mr. Parvez Butt, Chairman, PAEC while inaugurating a one-week PAEC/IAEA Research Coordination Workshop on irradiation of fruits and vegetables to ensure hygienic quality and enhancing their shelf life on July 25, 2005.

Speaking on the necessity of putting up irradiation plants to enhance the shelf life of fruits and vegetables, Mr. Butt told that a very big part of these items is wasted because of their short natural shelf life, and enhancing the same through the use of irradiation would bring better returns to the farmers and a continued supply for a longer time to the consumers.

Extension of shelf life and microbiological safety through the application of nuclear technology, will not only offer longer export proceedings in fresh condition, but will also find better acceptability by the consumers abroad as it will satisfy hygienic requirements of WTO regime, he added.

All the provinces have placed the requirement of setting up food irradiation plants at many zones and PAEC is fully capable to meet this demand through indigenous manufacturing, installation and operations as per strict international requirements, Mr. Butt informed.

Chairman, PAEC stated that agriculture is the backbone of the national economy but



Mr. Parvez Butt, Chairman, PAEC presiding the inaugural session of the workshop. To his right is Dr. Kauser Abdulla Malik, Member (Biosciences), PAEC and to left is IAEA expert Dr. Tatiana Rubio-Cabello

its dividends can be multiplied manifold only through technical support services towards enhancement of production, preservation and value addition.

In his welcome address, Dr. Kauser Abdulla Malik, Member (Biosciences), PAEC informed that PAEC has focused its research on agriculture, health and environment since very long. We put up an irradiation plant in 1987 at Lahore which is providing sterilization services for surgical and medical goods and we are running 13 cancer hospitals benefitting more than 3,50,000 cancer patients annually. We have also evolved more than 50 high-yield food and cash crops which are fetching billions of

additional income to the farmers, he added. Speaking on the occasion, IAEA expert Dr. Tatiana Rubio-Cabello informed that IAEA project for commercial irradiation plants involves active joint research between Member States which have generated valuable information in this regard. Food preservation is an issue of economic worth and irradiation is a good alternative for this purpose, she added.

Director of PAEC's Nuclear Institute for Food and Agriculture Peshawar, Mr. Sanullah Khattak informed that his centre has contributed significantly to reducing post-harvest losses of crops and eco-friendly technology for pest control.

Pakistan Highest Recipient of IAEA Technical Assistance

By virtue of its active participation in the IAEA Technical Co-operation Programme, extensive expert services and training to IAEA Fellows at PAEC establishments, Pakistan has recently risen to be the highest recipient of IAEA Technical Assistance among the Member States. It was among the top ten (5th, 7th, 6th, 8th) during the years 2000-2003.

Pakistan has also maintained the top

position among the list of Member States receiving Technical Assistance from the IAEA in Asia and the Pacific Region during the last three years (2002-2004). Prior to that, it was placed third and second during the years 2000 and 2001, respectively.

Twenty four IAEA funded Technical Cooperation Projects are currently operational at various PAEC Centres/

Institutes.

It may be recalled that based upon its competence and credibility, some of the PINSTECH labs have been declared as Regional Resource Unit of IAEA.

This ever increasing expansion of Technical Assistance Programme is due to recognition by IAEA of our excellent utilization of the assistance.

30th International Nathiagali Summer College Concludes Nathiagali Colleges Imparting Intellectual Enrichment & Economic Uplift: Dr. Masud Nathiagali College Effective Forum for Promoting International Scientific Cooperation: Professor Peter Bowmann



Group photo taken at the concluding ceremony

International Nathiagali Summer College initiated by PAEC due to the vision of Dr. Abdus Salam 30 years back had the dual objective of intellectual enrichment of the scientific community and socio-economic development of the country through a blend of topics on pure science and real world technological issues.

This was stated by Dr. Masud Ahmad, Member (Physical Sciences), PAEC in his address to the concluding session of 30th International Nathiagali Summer College on July 13, 2005. The college was jointly organized by Pakistan Atomic Energy Commission (PAEC) and National Centre for Physics (NCP).

The activities of the colleges have strived to spring up individuals with leadership qualities by offering the exchange of information on new frontiers of knowledge between the scientists of the West and those from developing countries and has also provided a linkage between expatriate Pakistani scientists working in advance countries to some of the active research groups back home, Dr. Masud informed.

Talking about salutary affects of well-trained cadres of scientists & engineers, Dr. Masud told that achievements of PAEC in the domains of national security and socio

economic development are solely attributable to its quality human resource which is its most vital asset and the development of which remains our prime priority.

Dr. Masud said PAEC attracted and retained best scientific minds even during worst periods of brain drain in the country's history by providing stimulating intellectual atmosphere, attractive work conditions and challenging tasks through logically built organizational structure coupled with its inspiring leadership.

Member, PAEC said that, apart from our core agenda of nation building, we have taken a number of initiatives to boost science in the country by organizing National Physics Talent Contest, the winners of which represent Pakistan at International Olympiads; participation of our young scholars in the Lindau Meeting of Nobel laureates; our collaboration with Pakistani universities for research and our outreach to the industry to help it acquire competitive capability.

Dr. Masud concluded by assuring the international gathering of scientists that these annual colleges will continue to be organized with even greater zeal and vigor

in the years to come and this activity will prove that "Physicists are not only busy in unifying forces of nature but that they themselves are a unified force which is striving to transform this chaotic and violent world into a place of tranquility and prosperity".

Speaking on the behalf of the foreign faculty, Professor Peter Bowmann from Germany lauded the utility of the college in terms of promoting international cooperation and addressing the latest scientific advances.

Dr. Khalid from Egypt appreciated the organizers for hosting an international gathering on important scientific themes.

Dr. Hafeez Hoorani, Scientific Secretary of the college presented details on the proceedings and contents of this International discourse on "Physics and Contemporary Needs".

Dr. Asif Salahuddin, Executive Secretary informed that 6 Nobel laureates and 880 foreign scientists from as many as 72 countries have participated in the proceedings of International Nathiagali Summer Colleges during last 30 years including 5500 local scientists drawn from R&D Institutes, universities and colleges.

Pakistan Atomic Energy Commission battling against cancer

Excerpts taken from a feature authored by Associated Press of Pakistan and carried by national press

We hear about cancer nearly every other day yet many of us still do not know what this deadly disease actually is and how it is caused and treated.

Cancer is a group of more than 100 different diseases. It occurs when cells become abnormal and keep dividing and forming more cells without any control or order.

A recent evidence indicates a correlation between the increased use of chemicals found in some plastics, pesticides and bleached paper, and certain transformations in the endocrine system. These chemicals could very well be the cause of increased rates of breast and other cancers.

Only about 30 percent of breast cancer cases can be attributed to known risk factors. Other possible factors included pesticides, automobile exhaust, landfills, water contaminants, electromagnetic fields and heterocyclic amines, which are found in cooked meats.

In Pakistan, the number of cancer patients is growing and this life threatening disease has become a major health hazard. Like other organizations, Pakistan Atomic Energy Commission (PAEC) has geared up its efforts to control the cancer.

Having made its niche in nuclear power and agriculture fields, the PAEC has established 13 centres which are providing latest facilities for the diagnosis and treatment of various diseases including cancer.

The contribution of the Commission through its integrated programme in the diagnosis of different kinds of cancers and

other diseases and their treatment has received considerable recognition and acclaim in the public and health circles.

As per PAEC, more than 327,000 patients are benefiting from PAEC cancer care facilities annually.

The Commission has also large resource base and operational facilities for timely repair and maintenance and to renovate, modernize and upgrade sophisticated electromechanical equipments at their own.

Last year, 192,000 patients were provided diagnostic facilities by the Nuclear Medicine Departments using short lived isotopes, obtaining planar, SPECT and whole-body images of the diseased organs using gamma camera. These images provide information about the shape, size physiological and functional status of the organs.

Facilities are also available for the treatment of thyrotoxicosis, thyroid cancer, polycythemia, palliative bone pain, malignant pleural and peritoneal effusion etc.

Radioimmunoassay techniques are used to detect small quantities of hormones and antibodies. The assays routinely carried out at PAEC medical centres include thyroid, pituitary and other endocrine hormones and tumour markers.

Besides Radiology, Mammography and Ultrasound for diagnosis, evaluation and prognosis of diseases are also available.

PAEC's nuclear medical centres have the added advantage of international contacts

with more developed countries through International Atomic Energy Agency (IAEA) and bilateral relations with friendly countries.

PAEC facilitates the access of its doctors and scientists to the international institutes and research organizations. This provides them with frequent opportunities of training, through these visits and participation in international meetings and conferences and thus keeping abreast with the day-to-day changes occurring at the horizon of medical field.

The Commission also extends expert services to regional countries for the use of nuclear techniques through IAEA technical cooperation programmes.

Moreover, the standards of education and training at PAEC's medical establishments are high enough that many foreign students are studying here for their postgraduate qualification especially in nuclear medicine.

Research work continued on 16 IAEA sponsored and 37 other research projects in collaboration with different international and national institutes.

Recently IAEA has granted a project worth US\$280,000 on quality control and quality assurance of Nuclear Medicine and Radiotherapy Machines.

Pakistani patients spend millions of dollars for seeking treatment of cancer-related diseases abroad, which calls for not only adding many more such cancer hospitals but also with more elaborate and high-quality facilities. (APP)

Radiation and Radioisotopes in Service of Humanity

Active participation of PAEC's PINUM in PCSIR industrial exhibition at Faisalabad

Use of radiation and radioisotopes has become an important modality for the diagnosis and treatment of different disorders. However, radiations are still feared by general public and medical personnel due to lack of proper information of the subject. The risks and benefits of radioisotopes have to be introduced at open forum for proper orientation in general public and the doctors.

In an effort to achieve this target, PAEC's cancer hospital namely Punjab Institute of Nuclear Medicine (PINUM), Faisalabad established 21-day camp in Pakistan Council for Scientific and Industrial Research (PCSIR) exhibition at Faisalabad. The objective was to provide medical cover in the exhibition and inculcate orientation regarding risks and benefits of radioisotopes being used for diagnosis and treatment within the institute.



People gathering necessary information and literature from PINUM stall in the PCSIR industrial exhibition at Faisalabad

Medical doctors, scientists and technical staff of PINUM worked hard day and night to introduce the risks and benefits of isotopes especially radioactive iodine (¹³¹I) which is the major isotope used for treatment of thyroid cancer and many thyroid diseases.

Thousands of people from the city visited

PINUM stall and gathered necessary information and literature. The camp set by PINUM was also visited by Federal Minister for Textile and Industry, Mr. Mushtaq Ali Cheema and the honorable ambassador of Philippine who declared it a great effort by PINUM authorities.

PAEC's Nuclear Institute of Agriculture (NIA) Celebrates Its 40 Years of Existence with Style and Substance

Nuclear Institute of Agriculture (NIA) Tando Jam, established in 1963 as the first establishment of PAEC in agriculture completed its glorious forty years. During these four decades, the institute has grown under the leadership of seven directors, namely Dr. Shaukat Ahmad (late) (1963-1970 & 1972-1984), Dr. Abdul Razzaque Azmi (1970-1972 & 1984-1992), Dr. Khushnood Ahmed Siddiqui (1992-1997), Dr. S. Shamshad Mehdi Naqvi (1997-1999), Dr. Muhammad Ashraf (1999-2000), Dr. Raziuddin Ansari (2000-2002) and Dr. Mazhar Hussain Naqvi (2002-todate).

The institute recently organized Forty Years Anniversary celebrations and invited all the ex-directors to pay tributes to their dedicated services.

Dr. Sohail Ahmad, represented his father late Dr. Shaukat Ahmad, the founder Director of the institute. All the ex-directors graced the occasion with their presence. They received standing ovation from the staff and scientists on their arrival in the auditorium for the function. Dr. M. Ashraf, was not in the best of the health and was



Ex-Directors addressing the function of NIA

Dr. K.A. Siddiqui (1992-97), Dr. A.R. Azmi (1984-92), Dr. M.H. Naqvi (2002-todate), Son of Dr. Shaukat Ahmad (1963-84), Dr. R. Ansari (2000-02), Dr. Muhammad Ashraf (1999-2000)

supported by two senior scientists to the dais.

After the recitation from the Holy Quran, the traditional gifts of Ajrak were presented to the guests. Dr. Mazhar Hussain Naqvi, Director NIA, welcomed the ex-directors and appreciated their significant role in the uplift of the institute and the achievements during the last forty years. He especially thanked Dr. Muhammad Ashraf who had traveled a long distance to participate in the

function in spite of his poor health. The institute is now considered as one of the best institutes in agricultural research in the country and has developed 16 high yielding, well adapted disease resistant/tolerant and improved quality varieties of crops. The institute has also developed an effective pest management system of different crops with minimum cost and environmental impact. On this occasion, citation of each ex director was read and shields were presented.

Participation in International Symposium at IAEA

Under the group leadership of Dr. Khalil Ahmed Qureshi, Member (Nuclear Fuel Cycle), PAEC, two geo-scientists namely Dr. K. A. Butt, Director General, Atomic Energy Minerals Centre, Lahore and Mr. Sarfraz Ahmed Malik, Project Manager, Insitu Leach Mining and Processing Project, Qabul Khel participated in international symposium on "Uranium Production and Resource Materials for Nuclear Fuel Cycle, Supply and Demand, Economics, the Environment and Energy Security" from June 20th - 24th 2005 at IAEA Headquarters, Vienna, Austria.

Upgradation of NIAB

PAEC's Nuclear Institute for Agriculture and Biology (NIAB) has made significant contribution in the field of agriculture and biology. However, shortage of working space and equipment was felt to expand the research activities at the Institute. Therefore, a PC-I was submitted to Government of Pakistan for up-gradation of NIAB, and was approved at a cost of Rs. 88.89 million.

Dr. Kauser Abdulla Malik, Member (Admin/Biosciences) performed the earth breaking ceremony of the new laboratory blocks at NIAB on April 8, 2005. The addition of new laboratory blocks will help in strengthening of the research projects at NIAB.

IAEA Experts Visit A.E Minerals Centre, Lahore

Technical Officer of IAEA Ms. K. J. Wenrich and Dr. G. Ruhrmann, IAEA Expert, visited Atomic Energy Minerals Centre, Lahore for 11 days during May-June 2005 under Technical Cooperation Project "Investigation of Uranium Source in Sedimentary, Igneous and Metamorphic Environments".

Dr. K.A. Butt, Director General AEMC apprised them of Geology of Pakistan and uranium occurrences in Pakistan. A quantum of Data collected on availability (source) of uranium in various geological environments was presented. The areas include Siwaliks/sandstone of Potwar Plateau, Bannu Basin, Kohat Plateau, Permian Sandstones of the Salt Range, Granite Gneiss of Malakand, Ambela and Iium Granitic complexes of Mardan and Lower Swat.

The visiting experts gave lectures on significance of uranium source rocks. Characteristics of sedimentary type uranium deposits and High Grade Uranium deposits were described. Additionally project sites in Granitic complexes of Mansehra and peri-granitic environments of Ambela Complex, Mardan were also visited. On site observations and discussions were very beneficial for future strategy and project implementation.

Publications and Presentations in Cancer Treatment Domain

1. Dr. S. Rafaqat Ali Jafri (Director NORI) participated in the course on "Environmental Health for MPH Class 2004" as Guest Speaker for the session on "Radiation and its Impacts on Environment and Health", held at Health Services Academy, Islamabad on 13-4-2005.
2. Article published in Journal of College of Physicians and Surgeon of Pakistan (JCSP): "Sentinel Node Localization in Breast Carcinoma" [Dr. Shazia Fatima, Dr. S. Rafaqat Ali Jafri] JCPSP 2005; Vol 15(4):215-217 April 2005.
3. Dr. Saif ul Haque delivered a presentation/lecture on "PET and PET-CT Imaging in Oncology" to the Radiology Department, PIMS, Islamabad on 16-5-2005.
4. Mr. Saeed-ur-Rahman (SS) presented a paper in International Conference on "Environmentally Sustainable Development", held at Abbottabad from 26-28 June, 2005.
5. Dr. Humera Mehmood (SMO) delivered a presentation/lecture on "Diet and Cancer" to post-graduate students at Pakistan Institute of Medical Sciences (PIMS) in Grand Round on 29-6-2005.
6. Dr. Muhammad Faheem (PMO) delivered a presentation/lecture on "Hazards of Smoking" to post-graduate students at (PIMS) in Grand Round on 29-6-2005.

Asghar Ali retires after 38 years meritorious service in PAEC Served IAEA and numerous expert assignments abroad



A glimpse of the participants of the farewell ceremony



Mr. Javed Iqleem, Member Power (centre) presenting farewell souvenir to Mr. Asghar Ali Khan (extreme right)

Member Power, PAEC Mr. Javed Iqleem, along with a string of senior scientists and engineers of PAEC paid glowing tribute to Mr. Asghar Ali Khan, chief scientist and Director, National Centre for Non-Destructive Testing (NCNDT) who retired after putting in 38 years of meritorious services with Pakistan Atomic Energy Commission.

Speaking at the occasion of farewell ceremony as chief guest, Member (Power) informed that PAEC has played a leadership role in introducing non-destructive testing in the country by training and certifying professionals in this field who were needed for PAEC's own programme and for the local industry. Presently, almost all NDT personnel in the country have been trained by Commission's NDT Centre and contribution of Mr. Asghar Ali Khan for setting up these training and certification

facilities are noteworthy, headed.

Mr. Asghar Ali Khan has been a member of the oldest PAEC team which pioneered the development of non-destructive testing (NDT) technology in the Commission since mid sixties. He has been the main driving force behind the establishment of National Centre for NDT (NCNDT), creation of Pakistan Society for NDT (PASNT) and issuance of a PAEC standard procedure for training and certification of NDT personnel (PAEC/SES/NDT-001). He has been the founder President of Pakistan Society for Non-Destructive Testing (PASNT), is Fellow of PASNT and a Fellow of Pakistan Nuclear Society (PNS).

Mr. Asghar Ali Khan also served on deputation to the International Atomic Energy Agency as Technical Officer (1998-2001). During his stay at the IAEA,

he rendered his services for the evaluation and implementation of about 20 individual country TC projects and 3 regional projects. He worked for the preparation of numerous text books which are extensively used throughout the world for teaching of NDT technology.

While at the disposal of IAEA, he worked for the promotion of NDT technology in the world and established additional contacts with numerous organizations such as European Federation of NDT Societies, International Committee for NDT, ISO, etc. which contributed to enrichment of IAEA's technical resources in the subject.

In recognition of the valuable services of Mr. Khan, he has been appointed as Advisor NCNDT for a term of two years starting from May 2005.

Diploma in Nuclear Medicine Technology (DNMT)

MoU signed between PAEC's Punjab Institute of Nuclear Medicine (PINUM) and Govt. College of Paramedics Faisalabad

PAEC to launch campaign for cancer awareness: Dr. Kauser Abdulla Malik

Memorandum of Understanding (MoU) between PAEC's Punjab Institute of Nuclear Medicine (PINUM) and Govt. College of Paramedics (GCOP) was signed in a ceremony at Chenab Club, Faisalabad on July, 26th, 2005 whereby PAEC will provide education and training leading to Diploma in Nuclear Medicine Technology (DNMT). The MoU was signed in presence of Dr. Kauser Abdulla Malik, Member (Biosciences), PAEC who was the chief guest.



Sitting (L to R) Dr. Khawaja Zaem Aslam, Principal GCOP, and Dr. Javed Irfanullah, Director, PINUM, Faisalabad signing the MoU while Dr. Kauser Abdulla Malik, Member (Biosciences) look on.

Speaking on the occasion, Dr. Kauser Abdulla Malik said that thirteen nuclear medicine centers of PAEC are providing diagnostic and therapeutic facilities to thousands of patients annually. Highly sophisticated equipments and trained medical personnel provide services of international standard. He appreciated Director PINUM as a pioneer of the diploma course for nuclear medicine technicians in Pakistan.

Dr. Kauser Abdulla Malik declared it as a great achievement of Pakistan Atomic Energy Commission. He also reminded that in 1980's, similar course for medical doctors was offered by Pakistan Institute of Engineering and Applied Sciences (PIEAS), which resulted in fulfillment of demand of trained nuclear medicine specialists in Pakistan. DNMT will also provide trained

manpower of technicians for hospitals run by Pakistan Atomic Energy Commission. He also stressed upon the future demand of technicians as PAEC is going to build nine more nuclear medicine centers in near future. On behalf of PAEC, Dr. Kauser Abdulla Malik announced five scholarships for DNMT students.

PAEC to design, manufacture and supply thermal seawater desalination plants for production of safe drinking water

PAEC signed a collaboration agreement with ASTER of Italy to jointly design, manufacture and supply thermal seawater desalination plants for the domestic and international markets. A contract was also signed for the first plant to be built at Karachi Nuclear Power Complex. It will be a Multi-Effect Distillation (MED) plant of 0.42 million Gallons Per Day (MGPD) capacity. It will use the steam from the Karachi Nuclear Power Plant to provide thermal energy to the MED plant. The equipment will be manufactured at HMC-3, and KANUPP would carry out the necessary modifications and coordination.

This is a Nuclear Desalination Demonstration Project under IAEA's RCA programme. An IAEA expert Mr. Jacques Andrienne participated in the preparation of the contract agreement and negotiations held at PAEC Headquarters.

NIA conducts Third Annual (2004-05) In-House Research Review for enhancing quality and quantum of services to farmers

PAEC's Nuclear Institute of Agriculture (NIA), Tando Jam conducted its Third Annual In-House Research Review from July 11-15, 2005. The prime objective of this activity was to review the ongoing research programmes of all the scientific divisions, viz Plant Genetics, Agriculture Biotechnology, Entomology, Plant Physiology and Soil Science.

Dr. Mazhar Hussain Naqvi, Director of the institute, in his opening remarks highlighted the goals and achievements of the research at NIA. He mentioned that the high yielding varieties of crops developed by this institute have made significant impact on the national economy.

The bio-control technology of insect pest management is becoming popular among farmers. The crop production technology of this institute and collaboration of the

scientists with the farming community can be witnessed by their active participation in field days and farmers' days. Besides publishing Eighth Five Years Research Progress (as Forty Years Report), the institute has published other booklets containing information for farmers and other end users.

IAEA Appreciation for PAEC's Scientific Information Division at PINSTECH

"Scientific Information Division (SID), PINSTECH has received a letter of appreciation from INIA-IAEA for commendable contribution of SID to strengthen its comprehensive INIS database. INIS (International Nuclear Information System) is a large bibliographic database maintained at IAEA Headquarters at Vienna in the area of nuclear science and technology and related subjects. Mr. Shahid Riaz Khan, Head SID in INIS Liaison Officer for Pakistan. This is the second consecutive year that SID has received appreciation from IAEA".

One-Day Seminar on "Quality management and its significance in the present Scenario" By Directorate of Quality Assurance (DQA), PAEC at PINUM, Faisalabad.

As the world has become a global village and medical investigations and laboratory reports are also evaluated through the fastest channels of information technology, hospitals and laboratories are facing the challenge of credibility and quality assurance. Punjab Institute of Nuclear Medicine (PINUM) Faisalabad is striving for ISO 9001-2000 certification through Directorate of Quality Assurance (DQA), PAEC.

To inculcate orientation regarding importance of quality assurance in hospitals, one day seminar on "Quality Management and its Significance in the Present Scenario" was arranged by DQA at PINUM hospital, Faisalabad on July 1st, 2005. All the technical/non-technical officers and staff of the institute keenly attended the proceedings.

Mr. Muhammad Azim, Director DQA, gave detailed presentation on the subject with special reference to importance of quality assurance in hospitals. In the end, director DQA visited all the divisions of PINUM and highly appreciated the standard of work and hoped for early ISO 9001-2000 certification of the institute.



Photograph of the doctor of PINUM hospital with Director Quality Assurance, PAEC (third from left) and Dr. Javed Irfanullah, (second from left) Director, PINUM, Faisalabad on the occasion of the seminar

Management Courses at CHASNUPP-1

CHASNUPP Centre of Nuclear Training (CHASCENT) organized two management courses related to training through Pakistan Institute of Management to enhance the abilities of engineers and scientists working in the different projects of PAEC in general, and particularly at CHASNUPP-1. Thirty officers (engineers/scientists) participated in each course to learn the training

techniques. These courses are a preliminary part of a Management Improvement Programme which will ultimately benefit from IAEA Technical Cooperation also. These two courses dealt with:

1. Training Techniques for Trainers 12-14 July, 2005.
2. Training Need Analysis 27 July, 2005.

Chairman's Assignment Abroad

Mr. Parvez Butt, Chairman, PAEC attended Meeting of the IAEA Board of Governors as Governor from Pakistan. The Meeting took place at IAEA, Vienna (Austria) from 16-17 June, 2005.

Assignments of IAEA Experts in Pakistan

- i. Mr. Javier Yllera Sanchez (Spain), Mr. Tibor Czaba Szikszai (Hungary) and Mr. John William Stetkar (USA), IAEA Experts conducted IAEA Training Course on Safety Assessment of the Nuclear Regulatory Body at PNRA, Islamabad from 2-6 May, 2005 under Project-Strengthening of Nuclear Regulatory Authority.
- ii. Mr. Ingemar Lund (Sweden) and Mr. Carl Goeran Lindvall (Sweden) IAEA Experts carried out Mission at PNRA, Islamabad from 2-6 May, 2005 for Task: Self Assessment of Regulatory Effectiveness in Occupational Radiation Protection at NPPS under Regional Project-Improving Occupational Radiation Protection in Nuclear Power Plants.
- iii. Mr. Sung-Choul Choi and Mr. Song-Sik Kim (Republic of Korea) undertook assignment at CHASNUPP, Kundian and KNPC, Karachi from 9-13 May, 2005 under Project-Supporting and Strengthening Operational Safety Management of CHASNUPP.
- iv. Dr. Renato Padovani and Dr. Carlo Meccia (Italy) conducted Workshop on Interventional and Diagnostic Radiation at Agha Khan University Hospital, Karachi from 9-13 May, 2005 under IAEA Regional Project-Strengthening Radiological Protection of Patients and Medical Exposure Control.
- v. Mr. Lee Collins and Dr. Anthony Paul (Australia) conducted Workshop on Nuclear Medicine at Shaukat Khanum Cancer Hospital, Lahore from 16-20 May, 2005 under Project-Strengthening Radiological Protection of Patients and Medical Exposure Control.
- vi. Ms. Karen Jane Wenrich (USA), IAEA Technical Officer and Dr. Gerhard Ruhrmann (Germany) IAEA Expert undertook Mission at Atomic Energy Minerals Centre, Lahore and other duty stations from 25 May to 6 June, 2005 under Project-Investigation of Uranium sources in Sedimentary, Igneous and Metamorphic Environments.
- vii. Mr. Jacques Andrainne (Belgium), Desalination Expert visited Directorate General Reactor Engineering (DGRE), PAEC, Islamabad from 31-15 June, 2005 under IAEA Technical Coordination Project-Development of Demonstration Plant for Nuclear Desalination.

viii. Mr. Jose Luis Gonzalez Gomez (Spain) and Mr. Bernard Neerdael (Belgium), IAEA Technical Officers visited PAEC HQ, Islamabad from 13-15 June, 2005 and Karachi Nuclear Power Complex (KNPC), Karachi on 16 June, 2005 to Review Radioactive Waste Data and discuss the PAEC Policy on Radioactive Waste Management.

- ix. Mr. Alexander Toth (Slovak), IAEA Staff Member, Mr. Ivo Kouklik (Czech Republic) and Mr. Pentti Johannes Koutaniemi (Finland), IAEA Experts conducted National Meeting on Improving Regulatory Utility Interface at PNRA, Islamabad from 20-24 June, 2005 under Regional Project-Strengthening Management of Operational Safety at NPPs.
- x. Mr. Lin Ge (People's Republic of China) undertook assignment at National Centre for Non-Destructive Testing (NCNDT), Scientific & Engineering Services Directorate, PAEC, Islamabad from 4-8 July, 2005 for Task: To Impart Knowledge of ISoI of NPP and to provide Expert Advice for the Improvements under Project-Development of In-service Inspection Facilities for Nuclear Power Plants.
- xi. Mr. Berislav Nadnic (Croatia) undertook assignment at Karachi Nuclear Power Complex (KNPC), Karachi from 11-15 July, 2005 for Task: Assistance in Development of Erosion/Corrosion Programme under Project-Improving Safety Feature of KANUPP (Phase-II)

Assignments of PAEC Experts Abroad

- i. Dr. Kauser Abdulla Malik, Member (Biological Sciences) cum Member (Administration), PAEC Islamabad undertook External Review Mission from 6-10 June, 2005 at International Centre for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syrian Arab Republic.
- ii. Dr. Manzoor Ahmad Choudhry, Deputy Chief Engineer, RIAD, PINSTECH, Islamabad undertook assignment as an IAEA Expert at Bangkok, Thailand from 6-15 June, 2005 for Task: Standardization of Tritium Measurement and Data Interpretation under Project-Isotope Techniques for Groundwater Contamination Studies in Urbanized and Industrial Areas.
- iii. Dr. Fauzia Yusuf, Deputy Chief Scientist, Head, Biofertilizer Division, NIBGE, Faisalabad undertook Expert Mission at Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh, Bangladesh from 10-21 June, 2005 under Islamic Development Bank (IDB) assisted Project-Establishment of Biofertilizer Resource Centre.

Posting in Mission Abroad

Dr. Imtihan Flahi Qureshi, Deputy Chief

Scientist, PINSTECH has been posted as Minister (Technical) at Permanent Mission of Pakistan, Geneva, Switzerland for a period of two years from 10 July, 2005 to 9 July, 2007.

Appointment with OPCW

Mr. Munir Ahmed Sheikh, Principal Engineer, PAEC has been appointed as Inspector (Chemical Production Technologist) at Organization for the Prohibition of Chemical Weapons (OPCW), Hague, Netherlands for a period of three years from 11 July, 2005 to 10 July, 2008.

Visit of Foreigner to Pakistan

Mr. Ingo Gleisner, Project Design Engineer accompanied by Dr. Gerhard Wagner and Mr. Dieter Novotny from M/s Hans Walischmiller, Germany visited PINSTECH, Islamabad from 11-15 July, 2005 for discussion on Basic Engineering Design of the Facility as well as on Laboratory Plan.

Visit of PSDP Experts to Pakistan

- i. Dr. Muhammad Nawaz, Specialist in Engineering and Applied Sciences (residing in Sweden) is currently undertaking assignment at Optics Laboratories (O Labs), PAEC and PIEAS, Islamabad for one month each w.e.f. 22 June, 2005.
- ii. Dr. Ghulam M. Shah Syed, Specialist in Nuclear Medicine (presently residing in Kuwait) undertook assignment at Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad for a period of two weeks from 18-24 July, 2005 and one week at Institute of Nuclear Medicine and Oncology (INMOL) Lahore from 25-31 July, 2005 under PSDP Programme.
- iii. Dr. Saber Bashir, Specialist in Blood Transfusion, Clinical Biochemistry, Hematology undertook two weeks assignment at INMOL, Lahore from 24 July, 2005.

Foreign Trainees in Pakistan

- i. Dr. Zia-ud-din Ahmed, Director General, Bangladesh Institute of Nuclear Agriculture (BINA), and Dr. M.A. Sattar, CSO/Head Soil Science Division (BINA) visited NIBGE, Faisalabad from 17-23 May, 2005 for training in the field of Azospirillum Technology under Technical Assistance Project of IDB entitled: Establishment of Biofertilizer Resource Centre at BINA, Bangladesh.
- ii. Mr. Muhammad Zahoor-Ul-Islam (Bangladesh national) has started 6 months training at NIBGE, Faisalabad from 29 June, 2005 in the field of Azospirillum Technology under IDB Fellowship Programme.

PAEC to establish nine more cancer hospitals

Chairman, PAEC opens 3rd International Oncology Conference

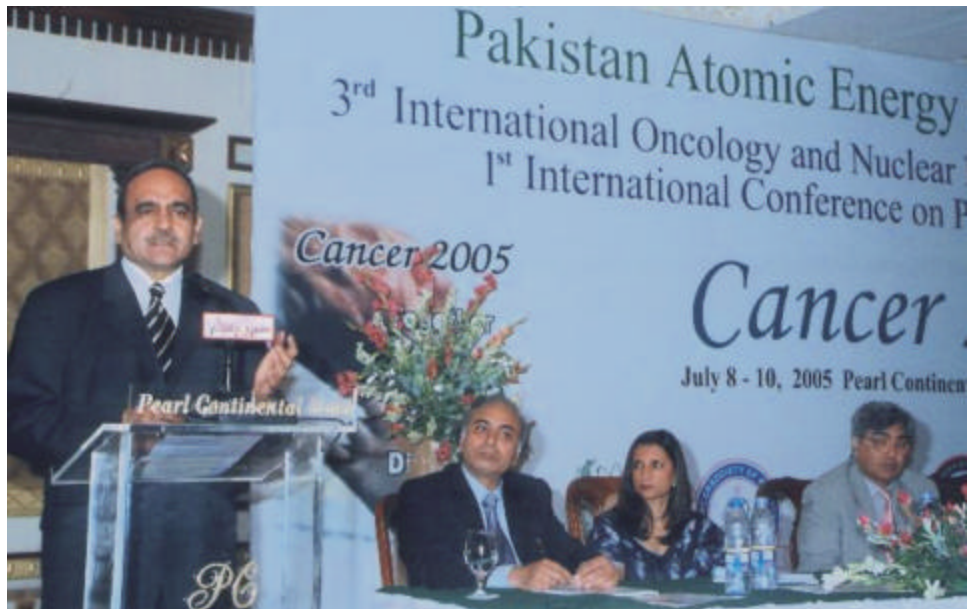
Pakistan Atomic Energy Commission plans to strengthen its nuclear medicine programme focusing on the expansion of nuclear medical centre network across the country.

This was announced by PAEC Chairman, Parvez Butt while speaking at a formal inaugural ceremony of the Third International Oncology and Nuclear Medicine Conference and the First International Conference on Paediatric Oncology held at a local hotel in Karachi on July 08, 2005.

He said that in order to utilize atomic energy for bringing relief to patients, the PAEC was establishing nine more cancer hospitals in various parts of the country including Gilgit, Gujranwala, Bannu, Swat, Nawabshah, D.I. Khan, D.G. Khan, Rahim Yar Khan, Mirpurkhas and two cancer hospitals in Azad Kashmir, while the cancer centre at the JPMC would also be renovated and upgraded.

"We will provide check-up facility of breast cancer at all of our hospitals, besides, deputing mobile teams, which will directly approach women for getting them checked for breast cancer," he told.

Speaking on the occasion, Dr. Kauser



Mr. Parvez Butt, Chairman, PAEC addressing the opening session of the conference

Abdulla Malik, Member (Biosciences), said that PAEC has always given high priority to the application of nuclear technology in biosciences especially health and agriculture sectors. The first nuclear medical centre became operational in Karachi in 1960 and in the last four decades, we have

established thirteen medical centres thus taking this facility of immense public utility to all the four provinces of the country. On an average PAEC's medical centres provided diagnostic and treatment facilities to over 350,000 patients annually.

10 Young Pakistani Scholars participate in the Meeting of Nobel Laureates

As part of its effort to groom scientific talent and to attract them to lure of scientific careers, Pakistan Atomic Energy Commission (PAEC) in collaboration with Higher Education Commission (HEC) sponsored 10 young scientists for their participation in Meeting of Nobel Laureates held in Lindau, Germany from June 26 to July 01, 2005. They include: (1) Dr. Muhammad Fawad-ul-Qamar (Medicine, Khyber Medical College, Peshawar), (2) Dr. Tehmina Masud (Pathology, Shifa College of Medicine, Islamabad), (3) Dr. Wagma Nisar (Surgery, Khyber Medical College, Peshawar), (4) Mr. Abdur Rehman (MBBS Student, Nishtar Medical College, Multan), (5) Mr. Shahid Ali (Physics, NESCOM, Islamabad), (6) Miss Naila Yaqoob (Chemistry, Govt. College University, Lahore), (7) Miss Samia Firdous (Chemistry, Govt. College University, Lahore), (8) Miss Fariha Tanwir (Biotechnology, NIGBE, Faisalabad), (9) Miss Saadia Naseem (Biology, NIGBE, Faisalabad), and (10) Mr. Zaigham Mahmood Khan, (Molecular Oncology, Aga Khan University), Karachi.

This annual activity was initiated in 2003 by Dr. N.M. Butt, scientist emeritus, PAEC who established contact with the organizers of the event and who has been declared as Representative in Pakistan for the Lindau



Young scholars from Pakistan led by Dr. N.M. Butt with Nobel Laureate Professor Hamilton Smith

Committee.

More than 700 students/research fellows were selected by the Lindau Committee from all over the world to interact with 44 Laureates in the related fields of study. This interaction was in the form of lectures, informal discussions, round table conferences, personal discussions, etc.

Prior to their departure, these young scholars were provided a two-day orientation which was addressed by: (1) Dr. Ishfaq Ahmad, Special Advisor to the Prime Minister on Strategic Programme, (2) Prof. Dr. Atta-ur-Rahman, Chairman HEC

(Federal Minister), (3) Mr. Parvez Butt, Chairman PAEC, (4) Gen. Iftikhar Ahmad Malik, Principal, Foundation Medical College, Rawalpindi, (5) Dr. Anis Ahmad, Rector, Riphah University, Islamabad, (6) Prof. Khawaja Masud, Former Principal Gordon College, (7) Prof. Anwar Dil, Professor of Linguistics, USA, (8) Dr. Shaukat Hameed Khan, Advisor (P & D) Govt. of Pakistan, (9) Engr. Tajamal Hussain, Director COMSATS, (10) Dr. N.M. Butt, Representative in Pakistan, Committee for the Meetings of Nobel Laureates in Lindau, (11) Mr. Waqar A. Butt, Programme Coordinator.