

# PakAtom

**Newsletter of the Pakistan Atomic Energy Commission** 

April - June 2018

# NIFA Organizes IAEA-Regional Training Course on Marginal Lands Utilization for Bio-energy Crops



Chairman PAEC Mr. Muhammad Naeem addressing the course participants of RTC

Pakistan Atomic Energy Commission (PAEC) is actively addressing the food insecurity through applied research on issues being faced by agriculture sector. A premier agribased institution of PAEC, Nuclear Institute for Food and Agriculture (NIFA) is undertaking mandatory research to improve agricultural productivity using conventional and nuclear techniques. Ensuring food security under changing climate and diminishing natural resources remains a regional concern. A viable option is to increase productivity of marginal lands by utilizing available inputs efficiently. This requires capacity building at regional level.

Keeping in view the importance of issue, IAEA in collaboration with PAEC/NIFA organized a regional training course for providing hands on training on the use of nuclear techniques for improving marginal lands productivity in Islamabad from 9-13 April, 2018. The course was attended by twenty two (22) participants from fifteen member states (China, Indonesia, Malaysia, Sri Lanka, Viet Nam, Thailand, Philippines, Palau, Nepal, Myanmar, Mongolia, Lao People's Democratic Republic, Cambodia, Bangladesh and Pakistan).

In the inaugural session, Mr. Abdul Jabbar Khan, Director NIFA, welcomed course participants and gave a brief overview of the R & D activities at institute and anticipated that the course will strengthen regional collaboration among member states by sharing knowledge and expertise for marginal lands productivity. On this occasion Member Science, PAEC, Chief Guest, in his inaugural address highlighted the achievements of PAEC in the field of energy,

health and agriculture sectors. He was of the view that PAEC has been endeavoring to improve productivity of agriculture sector in a holistic way through introduction of new varieties and environmental friendly soil, water and pest management practices.

During technical session, IAEA and PAEC technical experts delivered 11 lectures on various aspects of marginal lands productivity using conventional and nuclear techniques. Dr. Muhammad Zaman, Technical officer, IAEA elaborated the challenges faced by the modern agriculture and the cooperation of IAEA with member states to overcome these challenges. Dr. Nayyer Iqbal, Director, Agri. & Bio., PAEC presented the role of PAEC Agriculture & Biotechnology institutes in agriculture sector of Pakistan.

The course participants were also given hands-on-training on use of N<sup>15</sup> in field, neutron moisture meter and diviner. The event of send-off dinner hosted by PAEC was graced by the Honorable Chairman PAEC, Mr. Muhammad Naeem (H.I., S. I.). The foreign participants while expressing their views about the course and visit to Pakistan hailed the hospitality of the Pakistani people.

Speaking on the occasion, the Chairman PAEC thanked IAEA for providing funds for number of technical cooperation (TC) projects. He was delighted that IAEA desired to quantify the effect of TC fund contributions to Pakistan's economy so that it can be used as case study for rest of the states. He appreciated the joint efforts of NIFA and IAEA for successfully organizing this RTC in Pakistan.

# Manufacturing of Spiral Casing & Stay Ring for Gulpur Power Plant

PAEC's Heavy Mechanical setup HMC-3 is not only capable of manufacturing hydel components as per strict European quality standards but also contributing in National cause for generation of electricity.

It is now fully prepared to compete in emerging need of Hydel Power Plants as available resources at HMC-3 are well equipped and local manpower is now trained to execute such kind of jobs in future.

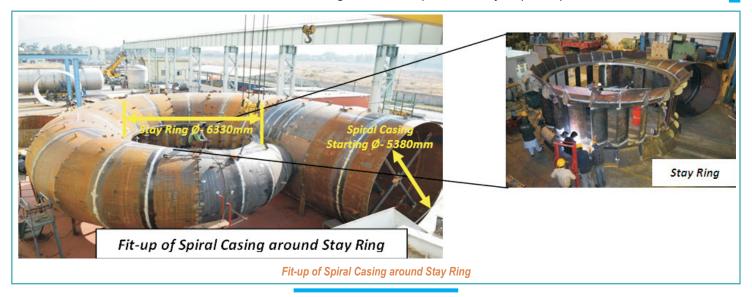
Recently a well known German company M/s Andritz Hydro GmbH, awarded contract to HMC-3 for manufacturing of PIER NOSE, DRAFT TUBE CONE, STAY RING and SPIRAL CASINGs for two units of Gulpur Hydropower Plant. its total installed capacity is 102 MW with two units of Francis Type Turbines (2 × 51 MW).

HMC-3 accepts the challenge for manufacturing of all stator components. Largest part (Spiral sections with Stay Ring, Dimensions L=9156mm × W=6961mm with Final weight

around 40 Tons) was professionally completed keeping close dimensional tolerances.

For this huge job, stress relieving was performed in 30-Meter Annealing Furnace and machining was done at 16-Meter Vertical Lathe keeping all tolerances within limits.Local manpower was imparted specialized training to prepare weld profiles of stay anes as per drawings, the most critical place for water impingement. Construction of all components was performed as per relevant ISO and ASME standards. Each manufactured component was accepted after passing all steps of Inspection and Test Plan (ITP) during Factory Acceptance Test (FAT) conducted by Engineers of Andritz Hydro Germany, DAELIM Korea and NESPAK Pakistan.

The manufacturing of these key Hydel components were well appreciated by Andritz Hydro Germany and they are planning to consider, HMC-3 as potential supplier for components of Hydel power plants in South Asia.



# NTFP Signs MoU with the World's Leading Tokamak Fusion Institute "ASIPP"China

The National Tokamak Fusion Program (NTFP) has signed MoU with the world's leading Tokamak fusion institute "ASIPP-Institute of Plasma Physics Academy of Sciences" China. This institute is not only contributing in the development of the world's largest Tokamak reactor "ITER-International Thermonuclear Experimental Reactor" but also designing its own tokamak fusion based demonstration reactor "CFETR". The project director of NTFP, Dr. Shahid Hussain and the Deputy Director of ASIPP, Prof. Yuntao Song, signed the MoU in a ceremony held at ASIPP, Hefei China.

A strong and long-term collaborationin the field of Tokamak fusion technology has been started with China through this agreement. It is an excellent step for the development of fusion technology in Pakistan with international collaboration and also for the training of manpower in this important area of technology.



Dr. Shahid Hussain PD, NTFP and Prof. Yuntao Song Deputy Director, ASIPP signing the MoU

#### Pakistan @ CERN Exhibition



Pakistan Atomic Energy Commission (PAEC) as the lead protagonist collaborated with different organizations/ firms from public and private sector to organize an industrial exhibition representing Pakistan at one of the world's largest and most respected centers for scientific research CERN (Geneva) from April 23rd to 25th, 2018.

The main objective of the exhibition was to present the state of the art industrial products, technical expertise, facilities and engineering skill set of various Pakistani organizations at a highly prestigious scientific forum such as CERN. As Pakistan is already an associate member state of CERN, the goal of the event was to explore new horizons of mutual collaboration and enhance the contribution of Pakistani firms in various hi-tech projects of CERN.

The Opening session was attended by Mr Farukh Amil, Ambassador Extraordinary and Plenipotentiary Permanent Representative of the Islamic Republic of Pakistan to the United Nations Office, as the chief guest along with esteemed officials from CERN top management. Officials from CERN delegation appreciated the contributions of Pakistani scientists and engineers in various projects. CERN officials showed complete optimism that with the advent of such events the portfolio of more organizations will be added to CERN Suppliers and partners list.

Mr. Khalid Mansoor Hassan (CERN ILO for Pakistan) as the chief organizer coordinated all the events and meetings while scientists and engineers from various organizations represented the capabilities and facilities of their respective organizations at delegated booths/stalls.

Wide spectrum of different technologies and products such as Mechanical systems, I&C systems, Power supply Test systems, Low pressure vessels, Printed circuit boards manufacturing facilities, Embedded systems, Optical electronics products, Engineering services etc were exhibited on the stalls.

Special session to discuss the procedures relating to procurement, price enquiry and participation in different tenders of CERN was held. The honorable guests inaugurated the exhibition by visiting various stalls and showed keen interest in the products on display.

During the course of the event, large number of personnel from CERN visited various stalls and discussed products in their relevant area of interest. Scheduled meetings with relevant CERN principals were held to discuss the ongoing projects and further participation of Pakistan firms in different scientific research & development areas.

Honorable Chief Guest, Mr. Farukh Amil hosted a reception for the Pakistani delegates and CERN top management (Mr. Fredric Bordry, Director HR and other officials) to celebrate the successful accomplishment of the event.

Pakistan@CERN exhibition has provided global forum for Pakistani industries to introduce their products and has created a window of opportunity for PAEC and other organizations to participate in CERN programmes in near future. Such events assist in presenting a modernized soft image of skilled people of Pakistan to the world.

In return PAEC can reap rich dividends of augmenting its capacity, competency and exposure to contribute more effectively in international arenas of science/technology. Pakistan received enquiries of 4-5 MCHF jobs from CERN.



Chief Guest and CERN Top Management Visiting various Stalls

#### **International Collaboration**

#### **Assignments of PAEC Experts Abroad**

- ★Mr. Hamid Mahmood, Senior Director, DNPES, PAEC, Islamabad undertook assignment as Expert for participation in IAEA Follow-up Mission to Jordan to "Review the Revised Site Suitability Report" from May 22 to 24, 2018.
- Mr. Wajid Ishaque, from NIAB, Faisalabad undertook assignment as Expert for "Regional Training Couse for Capacity Building on N-15 Application, Sampling, Collection and Data Interpretation" at Amman, Jordan from 06-10 May, 2018.
- Mr. Muzammal Hussain, from CHASNUPP-I, Kundian undertook assignment as Cost Free Expert to IAEA HQ, for 12 months w.e.f. 28-05-2018 to 27-05-2019 at the Department of Nuclear Energy, IAEA Vienna (Austria).

#### Visit of IAEA Experts to Pakistan

★ A team of three Experts comprising of Mr. Harri Varjonen, IAEA Staff (Finnish), Mr. Ante Bakic (Croatian) and Mr. Alojzije Matokovic (Croatian) carried out assignment at NCNDT, Islamabad from 26-29 June, 2018 for "Mechanized Ultrasonic Inspection of RPV", at NCNDT under IAEATC Project PAK/2/007.

#### Assignment sof PAEC Experts abroad

- Mr. Rizwan Liaquat, Manager, DOS, PAEC undertook assignment as a Member of Nuclear Security Guidance Committee (NSGC) for the IAEA 13th Meeting on NSGC from 11-14 June, 2018 in Vienna (Austria).
- ★ Mr. Ghulam Rasul Athar, CS, DDG (International Affairs) undertook assignment as an Expert for conducting Training Course on "Energy Demand Analysis with the IAEA Energy Demand Model MAED", in LAO People's Democratic Republic from 11-22 June, 2018.
- ★ Mr. Muhammad Imtiaz, DCS, ASAD, PAEC undertook assignment as an Expert for conducting Training Course for "Energy Demand Analysis with IAEA Energy Demand Model", held in Cambodia from 18-29 June, 2018.

#### Visits of Foreigners to Pakistan

- ★ Five Chinese delegation consist Mr. Dong Jun (John), General Manager, Mr. Yuan Zhifa (Kevin), Deputy General Manager, Ms. Wang Ying, Deputy General Manager, Mr. Xie Deying (Matthew), Regional Manager and Mr. Di Xingsheng (Simmon), of SINOPHARM, Pharmaceutical Company along with Pakistani representatives consist Business Manager. Mr. Muhammad Ishaq Burney, Director, and Dr. Ahmad Furqan Kazi, Project Manager, of Health Bee, Pharmaceutical Company visited NORI, Islamabad, Pakistan on 03 May, 2018 for Introduction of Pharmaceutical Products in Pakistan.
- ★ Two foreigners consist Mr. Lanzoni Giuseppe, British and Mr. Denzine Kelvin Jourdain visited INMOL, Lahore, Pakistan from 05 May to 30 June, 2018 to perform certain jobs relating to Hot Lab.
- ★Professor Stephen J. Perkins (British National), Professor of Structural Biochemistry, University College London, UK visited NIBGE, Faisalabad from 10 to 11 May, 2018 to deliver lectures and training session on structural dynamics studies of proteins.
- ★Six (06) member team of WANO consist Mr. Yoshikazu Tsuchihashi, Team Leader (Japanese), Mr. Kyung Soo Han, Reviewer, WANO-TC (Korean), Mr. Jean-Paul Joly,

- Reviewer, WANO-PC (French), Mr. Jan Alan Nimick, Reviewer, WANO-PC (USA), Mr. Graham Peter Finn, Observer, WANO London Office (British) and Muhammad Asghar Khan, Coordinator (Pakistani) visited KANUPP, CNPGS and PAEC HQ, Islamabad, Pakistan from 13 to 19 May, 2018 for Corporate Peer Review (CPR) follow-up problems in the fields of Bio-Technology.
- ★Two foreigners consist Mr. Wang Ling and Mr. Cong Shengbo visited NIBGE Faisalabad, Pakistan on 25th May, 2018 to hold meetings, group discussions and to explore future collaboration for control of pink bollworm problems in the field of Bio-Technology.
- ★Twelve members of WANO team consist Mr. Katsuhiko lwaki, Team Leader, Japan , Mr. Kanji Kinoshita, Reviewer, Japan, Mr. Yeong Don Park, Reviewer, South Korea, Mr. Joel Florent Chupeau, Reviewer, France, Mr. Pascal Jean Louis Robinet,Reviewer, France, Mr. Yang Li, Reviewer, China, Mr. Kwangsup Kim, Reviewer, South Korea, Mr. Kyo Hwang, Reviewer, South Korea, Mr. Naoto Kameyama, Reviewer, Japan, Mr. Jihoon Jang, Reviewer, South Korea, Mr. Yuzuru Yoshioka, Reviewer, Japan and Mr. Muhammad Asghar Khan, Coordinator, Pakistan. visited Chashma, Site, Pakistan from 23 to 30 June, 2018 for CNPGS Common Site Peer Review including Pre-visit including Crew Performance Observation (CPO) and Outage Visit (OV)
- Mr. Mohammad Reza Esfandiari, Engineer visited INMOL, Lahore, Pakistan from 20 June to 11 August, 2018 for performing certain job related to Cyclotron.
- Mr. Manabe Tadahisa (Japanese National), visited NIBGE Faisalabad, Pakistan on 06th June, 2018 to hold meetings and group discussions.
- Mr. Tan Kim Hai, Engineer, (Singapore National), visited INMOL, Lahore, Pakistan from 01 to 30 June, 2018 for installation of DOEADOnova MR 3R.
- ★ Two foreigners consist Mr. Amin Nizam, Lebanon and Mr. Feras Hamdi Abed Afattah Awwad Jordan visited INMOL, Lahore, Pakistan from 01 to 15 June, 2018 for meeting on SPECT CT/PET-CT/Fast Lab (Molecular Engineering).
- ★Dr. Sakandar Rauf (Pakistani / Australian National), Research Scientist, King Abdullah University of Science and Technology (KAUST), Saudi Arabia visited NIBGE Faisalabad, Pakistan from 26 to 27 June, 2018 to discuss health and nano- biotechnology related research projects.

#### **Hosting of Workshops**

- ★ PIEAS in Collaboration with the IAEA conducted workshop on "Software Development Life-Cycle and related Verification and Validation (V&V)" from 07 to 10 May, 2018. The workshop conducted by five foreign experts consist Horst Miedl (German), Janos Eiler (Hungarian, IAEA staff), Thuy NGUYEN (France), Jang-Yeol Kim (Republic of Korea) and Kee Choon Kwon (Republic of Korea) was attended by sixty-one local participants.
- Mr. Francis Xavier Campbell (Malta), Training Officer, Quality Assurance Section, TC Department, IAEA, conducted IAEA Workshop on preparation of TC Project Design at PAEC Rest House, Islamabad from 25-29 June, 2018. 40 local participants attended said Workshop under IAEATC Project PAK/2/007.
- ★Dr. Raimon PERICAS, Assistant Professor (Spanish National), conducted a Workshop on "Nuclear Severe Accident Modeling using RELAP5/SCDAP", at PIEAS, Islamabad from 1 to 8 July, 2018. 40 local participants attended this workshop.

#### One-day seminar on Cancer; a growing problem

PINUM Cancer Hospital Faisalabad arranged one day seminar "Cancer a Growing Problem" on 8th May, 2018 at University of Education, Faisalabad. The purpose of seminar was to create awareness about cancer and related risk factors among students of university level. Dr. Muhammad Saeed Akhtar, Director PINUM was the Chief guest. Dr. Mian H. R. Mahmood, Principal, University of Education welcomed Dr. M. Saeed Akhtar, Dr. Rafshan Sadiq, Consultant Oncologist, Dr. Saira Zafar, Oncologist and Dr. Asrah Nawaz, Oncologist. In welcome address, Principal, University of Education stressed upon the importance of awareness about cancer to reduce it's incidence with special attention to risk factors. Dr. Saira Zafar, Oncologist PINUM gave presentation regarding introduction of cancer and related risk factors. Dr. Rafshan Sadig, Consultant Oncologist delivered lectures on "Tobacco and lung cancer". She quoted figures of foreign exchange being spent on tobacco import by Pakistan which was alarming for the audience. She also stressed upon

harmful effects of Shisha hugga and electronic cigarettes resulting in increased incidence of lung cancer. Dr. Asrah Nawaz gave presentation on risk factors of oral cavity cancer with special attention to Paan, Chalia and Gutka. In concluding remarks, Dr. M. Saeed Akhtar told the audience that 18 cancer hospitals are working under Pakistan Atomic Energy Commission. More than 80% of cancer patients throughout Pakistan are entertained in these hospitals. PINUM is providing diagnostic and therapeutic facilities since 1996. Regarding cancer awareness, he reiterated that our diet comprising of vegetables, fruits & cereals are polluted due to use of pesticides and toxic chemicals. In addition to genetic factors in some cancers, risk factors include smoking along with use of Pan, Chalia, gutka, oxytocin injections to animals for milk and lack of physical activity. The authorities of University of Education thanked the speakers and chief guest from PINUM for conducting the workshop which created awareness in general population.



# IAEA workshop on Project Design using Logical Framework Approach

International Affairs Division in PAEC Headquarters conducted a workshop on IAEA TC project design using Logical Framework Approach (LFA) at PAEC rest house during 25-29 June, 2018. Mr. Francis Xavier CAMPBELL of Section of Quality Assurance, Department of Technical Cooperation (IAEA) was the lecturer.

PAEC officers from various centres involved in IAEA projects designs participated in the event. The workshop was inaugurated by Dr. Qamar Mehboob, Member (Materials). Certificates were distributed, on successful completion, at the closing of the workshop.



#### **PAEC Scientist Awarded Second Prize**



Muhammad Rizwan, Junior Scientist, Plant Breeding and Genetics Division, Nuclear Institute of Agriculture (NIA), Tandojam participated in 1st International and 2nd National Conference on March 26-28, 2018 at College of Agriculture, Bahauddin Zakariya University, Layyah Campus, Pakistan and presented a research paper

entitled "Genetic improvement in nutritional quality of

mungbean through interspecific hybridization with mashbean".

The paper was based on the findings of the studies conducted at Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad in a team work. Among more than 400 abstracts oral and posters presented at the conference, Muhammad Rizwan was awarded 'Second Prize' owing to the importance and quality of research work.

#### **Basic Training Course on Autodesk Inventor Software**

A three (03) Day Basic Training course on Autodesk Inventor was held from (20-22) March, 2018 at PAEC Hqs Islamabad.

Autodesk Inventor is a 3D Modeling Software used to design, visualize and test product ideas. Autodesk Inventor is used by professionals across many industries to help close the gap between Design, Engineering and Manufacturing. Autodesk Inventor is used to cut production costs drastically via digital prototyping and virtual testing. This in turn helps to reduce errors and labor-intensive manual reworking, which ultimately speeds up production cycles and helps to get finished products to the market faster.

This three (03) day Basic Training c ourse was designed for the participants who want to learn fundamental of 3D drawing or simply brush up on existing knowledge so it can be directly applied in their professional drawings. The course was conducted using Autodesk Inventor software which is widely used software for 3D drawings. This enabled participants to acquire the essential knowledge required to design 3D parametric parts and assemblies. The training was imparted through lectures.

demonstrations and hands on practice on Inventor software in order to understand the principles behind parametric design, as well as the skills to use Inventor to production-ready part and assembly designs.

Batch-1 of this training course was conducted for technical staff working in different establishments of PAEC. Thirty four participants from various establishment successfully completed this training course.

Mr. Aslam Umer, Director General was chief guest at the certificates distribution ceremony. Chief Guest admired the effort of resource persons and coordinating team and advised to start an advance level course of Autodesk Inventor Software in next session. DG and Director (Training), awarded certificates to the course participants.



Group photo of the participants with Director General, PAEC

## **Training Course on Nuclear Reactor Materials**

A "Course on Nuclear Reactor Materials" was held from July 16th - 19th, 2018 at PAEC Hqs Islamabad. The course was aimed to provide comprehensive knowledge about general material properties including mechanical, thermal, neutronics and corrosion resistant properties as well as discussion on their fabricability, availability and cost analysis. Emphasis was put on the selection criteria for fuel materials, shielding materials and materials for structural components of nuclear power plants (NPPs) and requirements for their specifications according to international codes and standards. Some lectures also touch topics of design loads, failure modes and failure analysis and role of non- destructive testing (NDT) for materials in NPPs.

To encompass this vast variety of topics, professionals with experience in relevant field are invited from different establishments of PAEC to share knowledge. Thirty seven

(37) participants from various establishments and organizations participated in the course.

At the end Certificate Distribution Ceremony was held and Dr. Ali Raza Anwar, Member (Systems) honored the closing ceremony as the chief guest. In his address, Member (Systems) recognized the importance of these courses as a tool for knowledge management. He pointed out that selection of appropriate material not only cut down the cost but also avoid accidents and failures. He encouraged the participants to apply the knowledge gained in this course in their fields.

Participants appreciated the efforts of resource persons and the coordinating team and praised the dynamic environment and interactive sessions in the training. They also asked for more detailed and elaborative courses on these topics in future.



### GINUM holds Symposium on Updates in the Management of Thyroid Disorders

Atomic Energy Cancer Hospital GINUM organized a one day symposium on 19th of April on the topic of, "Updates in the management of Thyroid disorders while focusing upon general practitioners perspective", in collaboration with Society of Family Physicians Gujranwala, Pakistan Medical Association Gujranwala, Society of Surgeons Gujranwala, Pakistan Medical Association Gujrat and Pakistan Society of Nuclear Medicine.

Keeping up its tradition of disseminating education and awareness regarding latest developments in the field of Nuclear Medicine and Oncology among the local Medical community and general population, GINUM arranged this particular academic event in which majority of the regional general practitioners, leading surgeons and medical specialists participated. Main theme of the event was to impart information and education to the audience regarding latest treatment practices worldwide for various thyroid disorders. In welcoming address the Director GINUM Dr. Sohail Murad briefed about the available diagnostic and treatment facilities at GINUM and about the future expansion and endeavors of the institute.

First presentation was delivered by Dr. Saleem Akhtar Rana; a well reputed family physician of Gujranwala, addressing the general problems faced by GPs in their routine practices while encountering thyroid patients in their clinics. Dr. Basit Iqbal, PMO, then dilated upon the topic of thyroid swellings, their manifestations and how to progress with their management.

While Dr. Asima Sohail, DCMO, elaborated the Radiological aspects of various thyroid diseases, how to diagnose them and identify the benign and malignant characteristics.

Afterwards Dr. Furqan Ali, PMO, and Dr. Zunaira Rafique, MO, rendered in depth presentations regarding the management of hypothyroidism and hyperthyroidism respectively in the light of latest international established guidelines and endocrine practices. Question answer session was held at the end of the lectures.

The audience lauded the efforts of GINUM consultant doctors for appraising them with the latest treatment updates and answering their queries comprehensively. Director GINUM in his closing remarks reiterated the fact that GINUM will keep on playing its role in propagating the knowledge about good and standardized treatment practices within the region for the benefit of ailing humanity.

The occasion concluded with distribution of the souvenirs to the worthy guests and presenters.



### PhD Degrees awarded to PAEC Scientists



Dr. Mohammad Aquil Siddiqui working in Plant Breeding & Genetics division Nuclear Institute of Agriculture (NIA) has been awarded PhD Degree in the field of Agronomy from Sindh Agriculture University TandoJam. He completed his dissertation with title "Fertilizer And Growth Regulator Management of Canola (brassica Napus L.)

Genotypes". Under the supervision of Dr.Zia-ul-Hassan Shah (Professor) Department of soil Science Sindh Agriculture University TandoJam. He has published two papers in International and National journals.



Dr. Muhammad Hamayoon Khan Jr. Scientist NIA, Tandojam has been awarded PhD degree by the Graduate School of Natural and Applied Sciences, Ege University Izmir, Turkey. The research topic of his thesis was "Mass rearing and biological characteristics of aphidophagous predators, Coccinella

septempunctata L. and Hippodamia variegata (G.) (Coleoptera: Coccinellidae) on some aphid species (Hemiptera: Aphididae)". A part of his PhD project was accomplished at the University of Modena and Reggio Emilia (UNIMORE), Italy. He has published two articles out of his PhD project while few others are under process of publication in well reputed international journals.

### 32<sup>nd</sup> SESAME Council Meeting at Lisbon Portugal

32<sup>nd</sup> SESAME Council Meeting was held in Lisbon Portugal on 02 May 2018. Dr. S. M Javed Akhtar, Member (CAC) represented Pakistan as Co-Vice President of SESAME council along with Dr. Sohail Ahmad Janjua, Director (CSC). The Meeting was inaugurated by Minister of Science, Technology and Higher Education of Portugal, Mr. Manuel Heitor. President of SESAME Council, Professor Rolf Heuer, welcomed the Chief Guest and the participants. The President presented comprehensive report of activities of SESAME that took place since the last meeting of the Council. He appreciated that for the current year Pakistan has paid half of its share. Two members for Scientific Advisory Committee were approved from Turkey and Pakistan.



Minister of Science, Technology and Higher Education of Portugal, Mr. Manuel Heitor addressing the 32nd SESAME Council

### PIEAS First Pakistani University ranks among Top 400 by QS World University Ranking

Pakistan Institute of Engineering and Applied Sciences (PIEAS) ranks among top 400 universities of the world competing for the first time in the Quacquarelli Symonds (QS) World University ranking 2019. The QS is one of the most widely referenced international ranking systems. Competing for the first time PIEAS has marked a new history by recording the best position ever secured by any Pakistani university in the World Ranking. With MIT, Stanford and Harvard at the top, latest QS World Ranking 2019 was published on 07 June 2018.

"PIEAS is one of the most reputed universities of Pakistan. PIEAS offers BS, MS and PhD degree programs in engineering and applied Sciences. Comparing with other universities in Pakistan, PIEAS has the highest proportion of PhD's in its full-time faculty. PIEAS has excellent experimental and computational facilities for conducting research and development projects in cutting-edge technologies. PIEAS is one of the most research-intensive universities of Pakistan. Due to excellent reputation of

PIEAS, admission to the undergraduate and postgraduate degree programs at PIEAS is highly competitive. Just in year 2016, more than twelve thousand (12,247 to be exact) candidates competed for 120 seats in BS degree programs and more than seven thousand (7,573 to be exact) candidates competed for 200 seats for admission in MS degree programs with fellowship."

PIEAS has around 145 highly qualified full-time faculty members in the diverse fields of physical sciences, engineering and medicine. One hundred (100) of them have PhD degrees from the reputed institutions of USA, Canada, UK, Germany, France, China, Japan, Korea, Austria and Australia. It has produced 200 PhD scholars so far. PIEAS faculty members have been decorated with 03 Sitara-e-Imtiaz, 03 Tamgha-i-Imatiaz, 6 President's Pride of Performance, 1 President's Medal for Technology, 1 Aizaaz-e-Kamal, 3 Aizaaz-e-Fazeelat, and 12 Best Teacher Awards.

#### New Pakistani Ambassador to Austria visits PAEC Facilities

The newly appointed Pakistani Ambassador to Austria, HE. Mansoor Ahmed Khan visited various nuclear facilities of PAEC, prior to his posting in Vienna. The Ambassador was shown various laboratories as well as Pakistan Research Reactor-1 (PARR-1) at PINSTECH. He was also shown various laboratories in PIEAS along with nuclear security lab established with the help of IAEA. He visited NORI, NCNDT and PWI centres. He took keen interest in various on-going activities and asked pertinent questions during the presentations given to him. During the meetings, Ambassador Mansoor A. Khan expressed keen interest in the development of fruitful relation with IAEA and promised his full support to strengthen in dealing all areas of cooperation with IAEA.



DG PINSTECH briefing about facility to HE, Mansoor A, Khan