7th convocation at KINPOE: 19 graduates awarded M.Engg. (Nuclear Power) degree

Nuclear energy is a safe national investment

Technology is important for the survival and development of any country. Security of a nation depends on its economy, which can be attained once high-quality trained manpower is available. Unless nations are able to produce the required number of well-trained scientists, engineers and technologists, their attempts at socio-economic transformation would remain devoid of real depth and meaning. These views were expressed by Sindh Governor, Mohammed Mian Soomro, in his address as the chief guest at the 7th convocation of the Kanupp Institute of Nuclear Power Engineering (KIN-POE), Karachi. Nineteen graduates were conferred the degree of Master of Engineering in Nuclear Power. The Vice-Chancellor of the NED University of Engineering and Technology, Engr. Abul Kalam, presided.

The Sindh Governor, while appreciating the efforts of faculty members and students of the institute, said that KINPOE's educational programme pertains to an area in which education and training has been denied, and at the same time, transfer of technology, if any, is also very slow. He noted that the PAEC has made significant progress in promoting the use of atomic energy in the areas of nuclear power, agriculture, medicine and defence. PAEC has done a lot of work towards the betterment of the country as well as its people in various fields such as health, agriculture and defence production as well as rehabilitation of salinity hit lands. The successful nuclear tests of 1998 and missile tests in the later course of time have strengthened the country's overall defence. Mr. Soomro also appreciated the PAEC for 30 years of safe operation of KANUPP and said that the nuclear power is a cheap and environmentally friendly source of energy.

Vice-Chancellor of NED University, Engr. Abul Kalam, in his address, urged the students to continue to work hard to attain excellence in their field. He also asked them to uphold the sanctity of the degree they are receiving.

The Director of KINPOE, Dr. Ansar Pervez, explained the objectives of the establishment; of the institute and its various stages of development into a centre of excellence.

In his welcome address, Mr. Parvez Butt, Chairman, PAEC, declared that PAEC is fully aware of the pivotal role that trained and qualified manpower plays in implementation of its programmes. He said that Commission I could not have progressed in various disciplines of engineering and science in general and in the areas of nuclear power production, medicine, agriculture and defence in particular, had it not been for the availability of (manpower selected on merit and trained to a high degree of competence.

"We firmly believe that science should help industrial development as well as
development in other areas of applied sciences such as agriculture and medicine. We also believe that for industrial development, cheap and abundant energy is an essential prerequisite. He said that the electricity generated at our two nuclear power plants is cost-wise comparable to the current average cost of the power generation in Pakistan and it gives a fair return to the government on its investment. He also pointed out that the nuclear power has many advantages over other forms of electricity generation. It is environmentally clean and there is no release of carbon dioxide and nitrogen oxide gases. The electricity generated by nuclear power plants does not depend on the seasonal flow of rivers as unfortunately our hydro-power stations do. It is not dependent on the fluctuating oil prices and the price of gas which in all fairness should be pegged to the oil prices for proper economic comparison. Chairman PAEC said that the operation of nuclear power plants is not a burden either on our imports, our pipelines or even our transport system. Not only is the fuel cheap, but a relatively smaller quantity is required which is easy to transport and store and therefore contributes to energy security. Thus the nuclear power should be regarded as an investment in the future of the nation. He stated that the nuclear power also increases our access to high technology with added spin-off in conventional industrial development.

Mr. Butt pointed out that nuclear industry is witnessing a renewed commitment to nuclear power, a 'nuclear renaissance' and 'strong revival' in USA' and 'an upbeat mood' in Europe. He said that President General Pervez Musharraf, while inaugurating 27th Nathiagali Summer College, noted that our nuclear power plants are producing only three percent of country's total power generation and opined that we need to increase our nuclear capacity. PAEC is working on a plan to establish a second unit at Chashma and another plant at Karachi. We would like to build the second plant which would be bigger than both KANUPP and CHASNUPP. There is a growing trend in the world for enhancing the operating life of the existing nuclear power plants by refurbishing and replacement of aging equipment and systems. Many plants in the world are being refurbished for extracting more useful life out of them. "PAEC has definite plans to extend the life of the Karachi Nuclear Power Plant (KANUPP) by another 12 to 15 years". PAEC has also been active in the medical and biological sciences. It is in these areas that the humanitarian aspect of nuclear technology is more directly visible. Twelve medical centres have been established and operated by PAEC where nearly 300,000 patients are provided cancer diagnosis and treatment at a nominal cost. We are also making progress in the establishment of a nuclear medical centre at Nawabshah.

Mr. Butt said that PAEC has launched programmes at Jacobabad and Badin for utilisation of salinity affected lands in Sindh. He said the PAEC is also active in other areas such as industry, mining, manufacturing, etc., and defence production in addition to basic sciences.

Degrees were awarded to the nineteen graduating students by the Vice-Chancellor of NED University, Engr. Abul Kalam. The Sindh Governor awarded gold medals and merit certificates, as well as souvenirs, to the graduates. Muhammad Sohail Niazi got the KINPOE gold medal and merit certificate for achieving the first position and the highest GPA. Merit certificates were also given to Arshad Habib Malik (2nd position) and Abdul Basit (3rd position).
KANUPP Institute of Nuclear Power Engineering (KINPOE)

KANUPP Institute of Nuclear Power Engineering (KINPOE) came into being in 1993 when Karachi Nuclear Power Training Center (KNPTC) was renamed to reflect its transition from running a one-year training program for engineers to holding a two-year degree awarding course. KNPTC, established in 1973, trained more than 250 engineers and over 900 technicians in nuclear technology for KANUPP and other establishments of PAEC.

KINPOE is a major step forward in the evolution of the training program of PAEC. Capitalizing on the know-how, institutional experience, and the commitment that existed within the premises of KANUPP, a program has been developed that leads to a Masters degree in nuclear power engineering. Affiliated with the prestigious NED University of Engg. & Technology, Karachi, KINPOE is unique in that it offers an advanced degree program geared to meet the requirements of a high-tech industry like nuclear power.

The faculty comprises 40 full time members. Of these, three have Ph.D. and 26 have Masters degrees, while another four are currently abroad, studying for their Ph.D. KINPOE is equipped with quite a few laboratories to meet the specific training requirements of the students.

The duration of the Masters course offered at KINPOE is two years. The name of the degree has recently been changed by the University from Master of Science to Master of Engineering. The pre-requisite academic qualification for admission is B.E./B.Sc. in engineering or M.Sc. in a related physical sciences discipline.

KINPOE takes pride in the fact that the admission to this program is purely on the basis of competence. The admission test, held in all the major cities of the country on a single jay, and the interviews that follow determine the merit for selection. Once selected, the candidates have to undergo an orientation program under the name of the zeroth semester which is practically six weeks of teaching and almost continuous testing. The zeroth semester is very effective in sifting out the less serious and those not quite competent to follow the pace. At the end of the zeroth semester, a select number of students are offered admission to the University.

The M. Engg. program consists of four regular semesters during which the students take a total of 18 courses. After completion of four semesters, students are allowed a few weeks to complete their projects that are generally based on nuclear power plant related problems. On successful completion of their degree, they are offered jobs in PAEC.

So far, 138 students have graduated from this program. The number of graduates is small but their achievement is not, nor is the effort that has been invested in preparing them. Their small number is a consequence of the high drop out rate to maintain the high standards. The faculty believes in quality and strives to ensure that the standard of Masters program is comparable to that offered in any foreign university. There is one simple objective that the students and faculty of this Institute must jointly achieve, and that is to produce people who can be usefully employed in the area of nuclear technology. At this level, we do not produce experts, but we do try to produce professionals who are equipped with necessary tools to make them productive in their careers.

In addition to the Masters degree program, KINPOE continues to offer one year training to the diploma holders. Trained technicians play an important role in meeting different levels of manpower requirements of our present and future nuclear power plants. A one year postgraduate training program has also been started this very year to meet the immediate manpower requirements of PAEC.

Indigenously manufactured Laser Land Levelers handed over to PCRWR

The first batch of four indigenously manufactured Laser Land Levelers were handed over to Pakistan Council of Research in Water Resources (PCRWR) at a ceremony held on 15 July, 2002 at Pakistan Institute of Nuclear Science and Technology (PINSTECH), Islamabad, with an aim to create awareness about the benefits of levelled land and conserving water resources.