

IAEA Collaborating Centre



Pakistan Institute of Engineering and Applied Sciences (PIEAS)



PIEAS

Collaboration on

Research, development and capacity building for multidisciplinary application of advanced and innovative nuclear technologies

Objectives

- Contribute to creation of new and support of the IAEA ongoing activities on the advancements and innovation in reactor designs and their applications
- Develop new experiments at nuclear engineering facilities to create new benchmark databases in support of on-going and planned IAEA programmatic activities in reactor simulation and modelling and multipurpose applications of advanced and innovative reactor designs, and the IAEA HOPS part-task simulator web-platform
- Co-organize/host workshops, training courses and seminars, including development of training materials and IAEA relevant publications
- Host researchers and IAEA fellows wishing to conduct joint research and/or training in supporting capacity building for multidisciplinary applications of advanced and innovative nuclear reactor systems (electrical and non-electrical applications, hybrid energy systems, large power reactor design and their abilities for isotope production)
- Sharing the experience of PIEAS with IAEA Member States on laboratory experiments, numerical modelling and nuclear education
- Providing experts to IAEA in the relevant areas of work

Main Activities of the Collaboration

- Research and development in the advancements and innovation of reactor designs and reactor numerical modelling and simulations
- Contribute to technical development, system analysis, and optimization of nuclear-renewable hybrid energy systems
- Conduct new experiments at the research facilities creating new experimental data for the validation of computer codes for modelling of advanced and innovative reactor designs and contribute to the IAEA HOPS platform in the development, validation and verification of the part-task simulators
- Train professionals on advanced and innovative reactor designs with the use of IAEA basic principle simulators and contribute to the creation of new IAEA relevant publications
- Develop educational and training materials for hands-on capacity building

Related IAEA Projects

All projects under IAEA's sub-programme on Technology Development for Advanced Reactors and Non-Electric Applications (1.1.5) and specific projects under IAEA's sub-programmes on Research Reactors, Nuclear Knowledge Management, and NA-Division of Physical and Chemical Sciences.

Designation period

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