

International Conference on Fast Reactors and Related Fuel Cycles: Next Generation Nuclear Systems for Sustainable Development (FR17)



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Overview of the IAEA Activities in the Field of Fast Reactor Technology Development: Current State and Future Vision

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Under the project on advanced technology for fast and gas-cooled reactors, the IAEA is carrying out several activities on fast reactor technology development including i) Modelling and Simulations, ii) Technical Support, iii) Fast Reactors Safety, iv) International Cooperation and Information Exchange, v) Education and Training, and vi) Knowledge Preservation.

Technical Working Group on Fast Reactors (TWG-FR) is a one of the main driving forces directing IAEA activities in the field. Eighteen countries and two international organizations are the members of the TWG-FR while six other countries and Generation-IV International Forum (GIF) are observers.

Coordinated Research Projects (CRP) are important IAEA instruments for organizing international research work to achieve specific research objectives consistent with the IAEA programme goals. Several CRPs have been conducted since last FR13 Conference in Paris. IAEA have completed CRPS on Phenix End-of-Life Tests, Monju Natural Convection, and Benchmark on Accelerator-Driven Systems (ADS). A special session on this conference is devoted to the recently completed CRP on benchmark analysis of EBR-II shutdown heat removal tests. CRP on radioactive release from the prototype sodium cooled fast reactor under severe accident conditions is ongoing now. Another in-progress NAPPRO CRP is on sodium properties and design and safe operation. A new benchmark CRP on CEFR Physics Start-Up Experiments has been initiated. In addition IAEA is conducting study on passive shutdown systems for fast neutron reactors, an initiative on knowledge preservation, joint IAEA-GIF initiative on safety of sodium cooled fast reactor. There are also a number of activities in the field of fast reactor education and training including annual schools and workshops on innovative nuclear systems and development of the SFR simulator for educational purposes.

The details of the IAEA activities will be presented on the special IAEA corner at the FR17 poster session.

Country/Int. Organization

International Atomic Energy Agency

Primary author: Dr KRIVENTSEV, Vladimir (IAEA)

Co-authors: Mr BATRA, Chirayu (IAEA); Dr KHOROSHEV, Mikhail (IAEA); Dr MONTI, Stefano (IAEA)

Presenter: Dr KRIVENTSEV, Vladimir (IAEA)

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