IFERC Newsletter

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International Fusion Energy Research Centre, Rokkasho, Aomori 039-3212, Japan

Meeting

33rd IFERC Project Committee (IFERC PC-33) meeting

The 33rd International Fusion Energy Research Centre (IFERC) Project Committee (IFERC PC-33) meeting was held at the IFERC site, Rokkasho on 11th October 2023 as a hybrid meeting with physical and online participation. Between IFERC PC-32 in March 2023 and this IFERC PC-33, 5 out of the 6 Project Committee (PC) members and the Project Leader (PL) were replaced, and a Deputy-PL was nominated from the EU side. The Thirty-four participants of IFERC PC-33 were the 6 PC members, including the PC chair Sehila Gonzalez de Vicente, 1 PC advisor, 5 Project Team members, including PL Masatoshi Yagi, two Deputy-PLs, Richard Kamendje and Noriyoshi Nakajima, the DDA Leader Nobuyuki Aiba and 1 secretary, and 21 experts in the EU and JA Implementing Agencies.

Fig.-1: Screenshot of IFERC PC-33 meeting

The most important issue in this meeting was to review the Work Programme (WP) 2024 and the Update of IFERC Project Team and Integrated Project Team for eventual approval by the Broader Approach (BA) Steering Committee (SC). The IFERC PC members recommended for approval by the BA SC both documents. The upcoming BA SC meeting (BA SC-32) will be held on 14th December 2023 in Spain.

The IFERC project progressed in 2023 as originally planned and all milestones defined in the WP 2023 for each task are expected to be achieved. The progress of the activities since the last PC-32 was reported in the status report of the CSC Activity, the status report of the DEMO Design Activity (DDA), the status report of the DEMO R&D Activity, and the status report of the REC Activity.

Regarding CSC, half of the total resources of JFRS-1 provided by QST as JA host contribution was allocated to the BA simulation projects targeting high priority areas relevant to fusion development programmes such as ITER, JT-60SA, DEMO and IFMIF/EVEDA in FY 2023 (the 4th cycle) as well as in the previous years. The user reports in the 3rd cycle indicate that improvements in simulation models lead to a good agreement between simulation results and experimental observations. Under the BA-IO collaboration, ITER scientists have joined two existing simulation projects to implement urgent activities on modelling of disruptions in ITER and ITER edge/SOL/divertor plasma simulations.

The joint activities of DDA showed good progress, particularly in the field of plasma scenario development (runaway electron modelling), divertor and power exhaust (benchmarking between SOLPS-ITER (EU code) and SONIC (JA code)) and safety.

The DEMO R&D Activity also showed steady and good progress in 4 task areas covering R&D in tritium technology including JET-ILW analysis, structural materials for in vessel components, neutron irradiation of Breeding Functional Materials (BFM), and material corrosion database. The achievement level of the goals and/or yearly milestones defined in WP 2023 and consecutive work plan until the next PC-34 were clearly specified in the individual subtask level. Preparatory works have been completed to conduct BFM irradiation experiments in new irradiation facilities: BR-2 reactor in Belgium and WWR-K reactor in Kazakhstan instead of a Russian reactor.

The REC activities have continued the collaborations with IO and with IFMIF/EVEDA. The CODAC terminal directly communicating with the servers in ITER was set up in REC and the CODAC Operator Interface (OPI) tests were successfully performed in collaboration with IO. In collaboration with IFMIF/EVEDA, three different schemes were tested in 2023 in order to promote remote participation to LIPAc experiments from EU.

The details of the activities in each sub-project are reported in individual newsletters.

(IFERC Project Team)