IFERC Newsletter

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

Meeting

31st IFERC Project Committee (IFERC PC-31) meeting

The 31st International Fusion Energy Research Centre (IFERC) Project Committee (IFERC PC-31) meeting was held at the IFERC site, Rokkasho on 27th October 2022 as a hybrid meeting with physical and online participation, due to travel limitations for COVID-19. Forty-one participants attended the IFERC PC-31. Among these were 6 committee members, including the PC chair, Kenji Tobita, 4 project team members, including the Project Leader, Susana Clement, Deputy Project Leader Noriyoshi Nakajima, DDA Leader, Nobuyuki Aiba, 1 secretary, and 30 experts from the EU and JA Implementing Agencies.

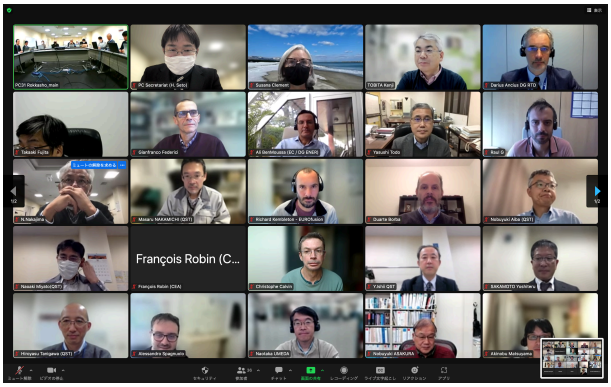

Fig-1: screenshot of IFERC PC-31 meeting

IFERC project progressed in 2022 as originally planned in spite of the COVID-19 situation. The activity plan in 2022 is prescribed by the Work Programme 2022 based on the Procurement Arrangements (PAs). The progress of activities since the last PC-30 held in April 2022 was reported in the status report of CSC Activity, of DEMO Design Activity (DDA), of DEMO R&D Activity, and of REC Activity together with a summary report for 2022.

The most important issue in this meeting was to propose the “Work Programme 2023” and an “Update of IFERC Project Team (PT) and Integrated Project Team (IPT)” for their eventual approval by the Broader Approach (BA) Steering Committee (SC). The IFERC PC members recommended for approval by the BA SC the “Work Programme 2023” with its clear description of the targets and milestones and “Update of IFERC PT and IPT”. The upcoming BA SC meeting; BA SC-30 will be held on 14th - 15th December 2022 in Padova.

Hereafter, the recent topics are shown. Regarding CSC, HPC resources in JFRS-1 (JA) and Marconi 100 (EU) were provided in FY 2022 for the third cycle BA simulation projects, and were allocated to projects targeting high priority areas relevant to fusion development programmes such as ITER, JT-60SA, DEMO and IFMIF/EVEDA. Under the BA-IO collaboration, ITER scientists had joined two existing simulation projects to include urgent simulation activities on divertor physics and disruptions. As a result, ITER unmitigated disruption simulations have obtained important new findings on the thermal quench time.

As for DDA, a new DDA Leader was nominated, and the management coordination meetings re-started monthly to share the task status and management issues between participants. The joint activities show good progress, particularly in the field of plasma scenario development (runaway electron modelling), divertor physics (benchmarking of divertor codes), and safety (comparison of accident analysis and regulation).

DEMO R&D Activity shows steady and good progress in 4 task areas covering R&D in tritium technology, structural materials, breeding functional materials (BFM), and corrosion database. Although irradiations in a Russian reactor had been cancelled, new irradiation facilities; BR-2 reactor in Belgium and WWR-K reactor in Kazakhstan were selected to conduct BFM irradiation experiments.

The REC activities continued to have high visibility and urgency due to the COVID-19 situation. Under the BA-IO collaboration, test of the ITER Dashboard as a live data viewing tool was carried out using the L2VPN dedicated line between REC and CODAC. The experience on the REC side was fed back to CODAC and accordingly, IO has modified the Dashboard after the tests. In parallel, the collaboration with IFMIF/EVEDA on remote participation has enabled the commissioning and operation activities of LIPAc, and continues actively to improve remote access to LIPAc.

The details of activities in each sub-project will be reported in individual newsletters in near future.

(IFERC Project Team)