Contribution ID: **230** Type: **Poster**

Verification tests for remote participation at ITER REC

Tuesday 23 October 2018 08:30 (20 minutes)

The ITER Remote Experimentation Centre (REC, [1]) in Rokkasho is one of the projects implemented within the Broader Approach (BA) agreement [2] as part International Fusion Energy Research Centre (IFERC). The long-term objective of the REC is to allow researchers to take part in the experimentation on ITER from a remote location. On a shorter time scale, before ITER will be operated, the REC facility will be used to test technologies for remote participation in collaboration with existing European tokamaks [3] and with JT-60SA, whose first operations are envisaged in 2020 [4].
Other than setting up and equipping the REC control room (see also [5]), during the first phase of the REC (2013-2017) the scope of the project included activities aimed at developing and evaluating software tools for fast data transfer, remote participation, data analysis, and plasma simulation. These activities have been carried out by an Extended-Integrated Project Team (E-IPT). Indeed, due to the characteristics of the remote experiment, the collaborations with experts in other institutes providing experimental data, network infrastructure, data transfer protocol, and experiences on inter-continental data transfer and data acquisition were essential for the success of the REC activities. As a consequence, members from different Japanese and European institutions were invited to join in E-IPT; among the various contributors, there are members of the ITER project and of the Satellite Tokamak Programme (STP), members of the National Institute of Informatics (NII) and the National Institute for Fusion Science (NIFS) in Japan, and members of JET and WEST in Europe.
In this paper, we report on the results of the REC verification tests that have been carried out in 2017. These tests were mainly aimed at assessing the functionalities of the REC control room (i.e., the configurability of the room layout, the capabilities of the video wall, etc.), as well as the functionalities of the software tools for remote participation that have been developed during the first BA period. A report on the preliminary remote participation tests carried out in collaboration with the JET tokamak will be also given, together with a description of the tests with both JET and WEST that have been planned for 2018.

Country or International Organization

Fusion For Energy (European Commission)

Paper Number

FIP/P1-16

Author: Dr CLEMENT LORENZO, Susana (Fusion for Energy)

Presenter: Dr CLEMENT LORENZO, Susana (Fusion for Energy)

Session Classification: P1 Posters

Track Classification: FIP - Fusion Engineering, Integration and Power Plant Design