

ARW 2024

Accelerator Reliability Workshop

MAX IV and ESS are Excited and Pleased to Announce their Joint Hosting

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The Active Cells Facility and Remote Handling in ESS: 2024 update

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The European Spallation Source (ESS) in Lund, Sweden is designed to be a 5 MW, long pulsed neutron spallation research facility, planned to be in full operations in 2027. The Active Cells Facility (ACF) is a large windowless facility, utilising remote handling functions, to process and temporarily store highly radioactive components to support ESS operations. UKAEA (United Kingdom Atomic Energy Authority) act as the In-Kind partner to ESS for the ACF through their Remote Applications in Challenging Environments (RACE) group. The internal transport casks, the "Cask Assembly", to deliver spent components to the ACF, are being manufactured by the Centre for Energy Research in Hungary.

The Cask Assembly (CA) shall ensure the safety and protection of workers and the public from the effects of radiation during Target Monolith maintenance and the internal transport of irradiated Monolith Components. The first Cask, Cask 3, has been manufactured in Asturfeito, Spain.

Due to the nature of this harsh environment remote maintenance is essential and predictive maintenance can reduce risk. This presentation will discuss this robotics application along with the potential benefit of the Internet of Things and machine learning.

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