Contribution ID: **17**   Type: **not specified**

MTCA.4 developments for the ESS

Thursday 12 December 2013 16:30 (13 minutes)

The European Spallation Source is one of the largest science and technology infrastructure projects being built today. This presentation aims to provide an overview of two uTCA.4-based developments done at ESS: Timing System and Beam Current Monitor (BCM).

The ESS Timing system is based on the Micro Research Finland (MRF) platform and is implemented in compactPCI and uTCA.4 form factors. A uTCA.4 timing receiver prototype was developed and integrated into the EPICS control system using the MRF EVR PMC and TEWS TAMC260 PMC carrier card. The uTCA.4 timing receiver will make use of the LVDS trigger lines in the backplane to deliver triggers to other cards.

The Beam Current Monitor is based on the Struck SIS8300 fast digitizer. First version of the BCM included development of EPICS support for the SIS8300 digitizer and data processing in software. Custom SIS8300 firmware is under development to process data in hardware, which will enable fast detection of beam losses through differential current measurements.

Primary author: Mr MEHLE, Marko (Cosylab)

Presenter: Mr MEHLE, Marko (Cosylab)

Session Classification: Software for MTCA.4

Track Classification: Software for MTCA.4