

## Design of the Korea-4GSR Timing system

*Thursday, November 14, 2024 1:00 PM (1h 30m)*

The event timing system is a system that coordinates and synchronizes events in a precise order over time, and provides precise timing to local devices installed in the 4GSR. The system consists of one Event Master (EVM), multiple Event Fanouts (EVF), and multiple Event Receivers (EVR), and each local device receives event, trigger, and time stamp information from the EVR. The event timing output signals provided to the local devices are provided as TTL signals or optical signals. If the local device receives an event as an optical signal, the local device receives both the event information and the time stamp. However, the EVR must be embedded in the local device. To facilitate the configuration of local devices with built-in EVR, a protocol developed by Micro Research Finland (MRF) is used. This protocol allows to utilize the EVR FPGA IP functionality and the functionality within commercial equipment (e.g. I-Tech Libera Brilliance+ BPM).

### Paper submission Plan

No

### Best Presentation

No

### Contribution track

ICABU WG1. Accelerator Systems

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