Contribution ID: **5** Type: **not specified**

High Speed Optical Line Detector for MTCA.4 Systems

Thursday 8 December 2016 14:30 (15 minutes)

Some physical phenomena can be conveniently analysed using just a single photo-element, others may require high-resolution cameras, but there is also a need for linear detectors. Such devices can offer a much higher frame rate than traditional cameras while still providing kilobytes of useful information per frame. Commercially available line cameras and sensors from leading manufacturers can only reach a frame rate of around 200 kHz. To perform valuable measurements on the DESY machines, an order of magnitude faster acquisition is required. Such a custom system working with frame rate of up to 4.5 MHz, acquiring and processing several gigabits of data per second, is described and demonstrated in the presentation.

Primary author: Mr MIELCZAREK, Aleksander (Lodz University of Technology)

Co-authors: Mr SZUBERT, Aleksander (Lodz University of Technology); Dr MAKOWSKI, Dariusz (Lodz University of Technology)

Presenter: Mr MIELCZAREK, Aleksander (Lodz University of Technology)

Session Classification: Session 7