RMBA w.g. organization discussion

L.Vitale - INFN & Univ. Trieste

RMBA meeting, 2020.05.29

- Next meeting?

  in 2 weeks (mid June) / directly at B2GM (end June) ?

- Update of requirements for radiation monitoring & beam abort

  General, Belle II + SuperKEKB, interaction region

  Specific, electronics upgrade for the diamond system

  => Belle II draft note: sections, assignments, tools

UNIVERSITÀ DEGLI STUDI DI TRIESTE
Dipartimento di Fisica
Department of Physics

INFN
Istituto Nazionale di Fisica Nucleare
SEZIONE DI TRIESTE

Requirements, general

1. System availability, failure rate, protection agains failures

2. Monitoring requirements

    2.1 Dynamic range

    2.2 Readout frequency

3. Protection requirements

    3.1 PXD

    3.2 SVD

    3.3 other Belle II subsystems

    3.4 QCS magnets

4. Belle II – SuperKEKB integration requirements (MDI)

    4.1 Hardware signals, synchronization

    4.2 EPICS software for readout and control

    4.3 Monitoring and archival tools

Requirements, diamond electronics

1. **Modularity and form factors**

2. **Diamond detectors**

   2.1 Locations

   2.2 Cabling and grounding

3. **Analog front-end and digitizers**

   3.1 Dynamic range

   3.2 Time resolution

4. **Digital section**

   4.1 FPGA functions (running sums, aborts, monitor, readout)

   4.2 Buffer memories (depth; dual port access

   4.3 Ethernet interfaces

5. Synchronisation with SuperKEKB

6. EPICS control and monitoring

Tools, assignments, deadlines

- Tools: LaTeX + overleaf ?

- Section assignements (volunteers?)

  PXD protection requirements

  SVD protection requirements

  other Belle II subsystems

  MDI, SuperKEKB & QCS

  ….

- deadlines

  June B2GM, 1st draft ?