Advanced Techniques in LLRF control for XFEL - Collaboration Workshop

Report of Contributions

Contribution ID: 0 Type: **not specified**

X-FEL Installation Overview

Tuesday 19 February 2013 17:30 (15 minutes)

Presenter: Mr WIERBA, Wojciech (Institute of Nuclear Physics PAN, Cracow, Poland)

Session Classification: X-FEL Installation

Contribution ID: **1** Type: **not specified**

RF Synchronization Overview and Installation Plans

Tuesday 19 February 2013 15:40 (15 minutes)

Presenter: Dr CZUBA, Krzysztof (ISE, Warsaw University of Technology)

Session Classification: X-FEL Installation

Contribution ID: **2**　　　　　　　　　　　　　　　　　Type: **not specified**

X-FEL MO Status

Tuesday 19 February 2013 15:55 (15 minutes)

Presenter:　Mr ZEMBALA, Lukasz (ISE, Warsaw University of Technology)

Session Classification:　X-FEL Installation

Contribution ID: **3**　　　　　　　　　　　　　　　　　　　　　　Type: **not specified**

Interferometer for RF Synchronization - Status and Plans

Tuesday 19 February 2013 16:10 (15 minutes)

Presenter: Mr SIKORA, Dominik (ISE, Warsaw University of Technology)

Session Classification: X-FEL Installation

Contribution ID: **4**   Type: **not specified**

uTC Board Status

Wednesday 20 February 2013 10:45 (15 minutes)

Presenter: Dr MAKOWSKI, Dariusz (Tech. Univ. of Lodz, DMCS)

Session Classification: Mass production of X-FEL components

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

uVM Status

Wednesday 20 February 2013 11:15 (15 minutes)

Presenter: Mr RUTKOWSKI, Igor (ISE, Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **7**   Type: **not specified**

L2RF Electronics

Wednesday 20 February 2013 17:30 (15 minutes)

Presenter: Ms JANAS, Ewa (ISE, Warsaw University of Technology)

Session Classification: Optical synchronization

Contribution ID: **8**   Type: **not specified**

uDS800 Status

Wednesday 20 February 2013 13:00 (15 minutes)

Presenter: Mr BOU HABIB, Samer (ISE, Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **9** Type: **not specified**

DCM Status

Wednesday 20 February 2013 15:15 (15 minutes)

Presenter: Mr PIEKARSKI, Jan (Warsaw University of Technology - Institute of Electronic Systems)

Session Classification: Mass production of X-FEL components

Contribution ID: **10** Type: **not specified**

LOGM Status

Wednesday 20 February 2013 15:45 (15 minutes)

Presenter: Mr ZUKOCINSKI, Mateusz (Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **11** Type: **not specified**

uFMC25

Wednesday 20 February 2013 09:45 (15 minutes)

Presenter: Mr KOROLCZUK, Stefan (The Andrzej Soltan Institute for Nuclear Studies (IPJ))

Session Classification: Optical synchronization

Contribution ID: **13** Type: **not specified**

PZ16M Status

Wednesday 20 February 2013 15:30 (15 minutes)

Presenter: Dr GRECKI, Mariusz (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **14**   Type: **not specified**

PSM Status

Wednesday 20 February 2013 15:00 (15 minutes)

Presenter: Mr KUEHN, Daniel (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **15**   Type: **not specified**

KDS and equipemnt inventory management

Wednesday 20 February 2013 16:45 (20 minutes)

Presenter: Mr KUDLA, Ignacy (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **16**　　　　　　　　　　　　　　　　　　　Type: **not specified**

Testing procedures and setup

Wednesday 20 February 2013 17:05 (15 minutes)

Presenter: Mr BARMUTA, Pawel

Session Classification: Mass production of X-FEL components

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

uTCA Problems Summary

Wednesday 20 February 2013 17:20 (15 minutes)

Presenter: MAVRIC, Uros (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **18**   Type: **not specified**

Firmware Framework and Development Overview

Thursday 21 February 2013 09:00 (15 minutes)

Presenter: Mr BUTKOWSKI, Łukasz (ISE)

Session Classification: Software

Contribution ID: **19**   Type: **not specified**

Common MMC implementation summary

Thursday 21 February 2013 09:45 (15 minutes)

Presenters: Mr SZEWINSKI, Jaroslaw (Soltan Institute for Nuclear Studies);   MAVRIC, Uros (DESY)

Session Classification: Software

Contribution ID: **20**   Type: **not specified**

AMTF procedures and strategies

Thursday 21 February 2013 10:00 (15 minutes)

Presenter: CICHALEWSKI, Wojciech (TUL-DMCS)

Session Classification: Software

Contribution ID: **21**　　　　　　　　　　　　　　　　Type: **not specified**

Software status and next steps

Thursday 21 February 2013 10:15 (15 minutes)

Presenter:　Mr SCHMIDT, Christian (DESY)

Session Classification:　Software

Contribution ID: **22**   Type: **not specified**

Server development status and resource overview

Thursday 21 February 2013 10:30 (15 minutes)

Presenter: Mr PIOTROWSKI, Adam (Technical University of Lodz, DMCS)

Session Classification: Software

Contribution ID: **23**   Type: **not specified**

High level software new topics and discussion

Thursday 21 February 2013 11:15 (15 minutes)

Presenters: Mr SCHMIDT, Christian (DESY);   BRANLARD, Julien (DESY)

Session Classification: Software

Contribution ID: **24**   Type: **not specified**

Status update on HVF

Tuesday 19 February 2013 13:00 (20 minutes)

Presenter: Dr SCHLARB, Holger (DESY)

Session Classification: X-FEL Installation

Contribution ID: **25**   Type: **not specified**

Module commercialization and licensing

Tuesday 19 February 2013 13:20 (20 minutes)

Presenter: Dr LUDWIG, Frank (DESY)

Session Classification: X-FEL Installation

Contribution ID: **26** Type: **not specified**

XFEL LLRF (production/installation/commissioning) schedule and milestones

Tuesday 19 February 2013 13:40 (20 minutes)

Presenter: BRANLARD, Julien (DESY)

Session Classification: X-FEL Installation

Contribution ID: **27**　　　　　　　　　　　　　　　　　　　　　　Type: **not specified**

Cabling and rack installation

Tuesday 19 February 2013 15:15 (25 minutes)

Presenter: Mr WIERBA, Wojciech (Institute of Nuclear Physics PAN, Cracow, Poland)

Session Classification: X-FEL Installation

Contribution ID: **28**　　　　　　　　　　　　　　　　　Type: **not specified**

Hardware requirements

Tuesday 19 February 2013 16:25 (15 minutes)

Presenter:　BRANLARD, Julien (DESY)

Session Classification:　X-FEL Installation

Contribution ID: **31**   Type: **not specified**

MTCA crates: Elma/Schroff, RFB compatibility + 2U crates

Wednesday 20 February 2013 09:00 (15 minutes)

Presenter: Dr JEZYNSKI, Tomasz (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **32** Type: **not specified**

RF Backplane

Wednesday 20 February 2013 09:15 (15 minutes)

Presenter: Mr LEŚNIAK, Tomasz (ISE/ Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **33**   Type: **not specified**

MTCA core components: CPU, MCH, uPS

Wednesday 20 February 2013 09:30 (15 minutes)

Presenter: Dr JEZYNSKI, Tomasz (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **34**   Type: **not specified**

uLOG carrier and RF board

Wednesday 20 February 2013 09:45 (15 minutes)

Presenter: MAVRIC, Uros (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **35** Type: **not specified**

uDWC

Wednesday 20 February 2013 11:00 (15 minutes)

Presenter: Mr SIKORA, Dominik (ISE, Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **36** Type: **not specified**

uDWC-VM

Wednesday 20 February 2013 11:30 (15 minutes)

Presenter: Dr HOFFMANN, Matthias (DESY)

Session Classification: Mass production of X-FEL components

Contribution ID: **37**   Type: **not specified**

Low frequency VM status

Wednesday 20 February 2013 11:45 (15 minutes)

Presenter: GRZEGRZÓŁKA, Maciek (ISE/WUT)

Session Classification: Mass production of X-FEL components

Contribution ID: **38**   Type: **not specified**

Special RTMs: for KLM, for HOMs

Wednesday 20 February 2013 13:15 (15 minutes)

Presenter: Mr BOU HABIB, Samer (ISE, Warsaw University of Technology)

Session Classification: Mass production of X-FEL components

Contribution ID: **39**   Type: **not specified**

Special AMCs: for RadMon

Wednesday 20 February 2013 13:30 (15 minutes)

Presenter: Mr MAKOWSKI, Dariusz Makowski (Tech. Univ. of Lodz, DMCS)

Session Classification: Mass production of X-FEL components

Contribution ID: **41**   Type: **not specified**

System overview: MTCA for optical links

Wednesday 20 February 2013 09:00 (15 minutes)

Presenter: Mr FELBER, Matthias (DESY)

Session Classification: Optical synchronization

Contribution ID: **42** Type: **not specified**

uFMC20

Wednesday 20 February 2013 09:15 (15 minutes)

Presenter: Mr DUHME, Hans-Thomas (desy)

Session Classification: Optical synchronization

Contribution ID: **43** Type: **not specified**

DRTM-AD84

Wednesday 20 February 2013 09:30 (15 minutes)

Presenter: Mr MEYER, Robert (DESY)

Session Classification: Optical synchronization

Contribution ID: **44** Type: **not specified**

DAMC02 Controller Firmware

Wednesday 20 February 2013 10:15 (15 minutes)

Presenter: Mr PREDKI, Pawel (TUL / DMCS)

Session Classification: Optical synchronization

Contribution ID: 45   Type: **not specified**

uPZT4

Wednesday 20 February 2013 10:00 (15 minutes)

Presenter: Mr PRZYGODA, Konrad (TUL)

Session Classification: Optical synchronization

Contribution ID: 46   Type: **not specified**

Discussion

Wednesday 20 February 2013 10:45 (1h 15m)

Zone3, reduced RF backplane for HVPS communication and management, Topology, Communication bandwidth, Latency, What is needed for tests of one complete unit (for July 2013)

Session Classification: Optical synchronization

Contribution ID: 49   Type: **not specified**

BAM system overview

Wednesday 20 February 2013 15:00 (10 minutes)

Presenter: Mrs CZWALINNA, Marie Kristin (DESY)

Session Classification: Optical synchronization

Contribution ID: **50**   Type: **not specified**

uFMC25 for BAM

Wednesday 20 February 2013 15:10 (10 minutes)

Presenter: Mr SZEWINSKI, Jaroslaw (Soltan Institute for Nuclear Studies)

Session Classification: Optical synchronization

Contribution ID: **51**　　　　　　　　　　　　　　　　　　Type: **not specified**

FMC Mezzanine for BAM

Wednesday 20 February 2013 15:20 (10 minutes)

Presenter:　Mr BOU HABIB, Samer (ISE, Warsaw University of Technology)

Session Classification:　Optical synchronization

Contribution ID: **52**   Type: **not specified**

BAM Discussion

Wednesday 20 February 2013 15:40 (50 minutes)

Requirements for the complete BAM-system:
* The lowest level: availability of electronics for control of motors, encoder, analogue I/O, etc.
* The hardware level: cabling, signal lines, limitations in latency and bandwidth etc., interfaces to other subsystems (LLRF, BPM, …)
* The software level: firmware for communication between cards in the uTCA crate, server for the BAM read-out and control
* Fix all specifications
* Prepare schedule for developments and tests

Session Classification: Optical synchronization

Contribution ID: **53**   Type: **not specified**

Reference Distribution Concept

Wednesday 20 February 2013 16:45 (15 minutes)

Presenter: Dr CZUBA, Krzysztof (ISE, Warsaw University of Technology)

Session Classification: Optical synchronization

Contribution ID: **54**
Type: **not specified**

L2RF Optics and Integration

Wednesday 20 February 2013 17:00 (15 minutes)

Presenter: Mr LAMB, Thorsten (DESY)

Session Classification: Optical synchronization

Contribution ID: **55**   Type: **not specified**

REFM / RF Reflectometer

Wednesday 20 February 2013 17:15 (15 minutes)

Presenter: Mr SIKORA, Dominik (ISE, Warsaw University of Technology)

Session Classification: Optical synchronization

Contribution ID: **58**   Type: **not specified**

REFM Discussion

Wednesday 20 February 2013 17:45 (1 hour)

Session Classification: Optical synchronization

Contribution ID: **59**   Type: **not specified**

Improvement of the PCIe communication

Thursday 21 February 2013 09:15 (15 minutes)

Presenter: Mr SZEWINSKI, Jaroslaw (Soltan Institute for Nuclear Studies)

Session Classification: Software

Contribution ID: **60** Type: **not specified**

XFEL WP18 Hardware requirements and schedule

Tuesday 19 February 2013 14:00 (20 minutes)

Presenter: Dr GERTH, Christopher (DESY)

Session Classification: X-FEL Installation

Contribution ID: **61**　　　　　　　　　　　　　　　　　Type: **not specified**

Discussion

Tuesday 19 February 2013 14:40 (20 minutes)

Session Classification: X-FEL Installation

Contribution ID: **62**　　　　　　　　　　　　　　　　　　Type: **not specified**

Optical synchronization

Tuesday 19 February 2013 14:20 (20 minutes)

Presenter:　Mr SYDLO, Cezary (DESY)

Session Classification:　X-FEL Installation

Contribution ID: **63**   Type: **not specified**

Discussion

Tuesday 19 February 2013 16:40 (35 minutes)

Session Classification: X-FEL Installation

Contribution ID: **64**   Type: **not specified**

Overview FLUTE, TELBE, ESS

Tuesday 19 February 2013 17:45 (15 minutes)

Presenter: Dr HOFFMANN, Matthias (DESY)

Session Classification: X-FEL Installation

Contribution ID: **65**   Type: **not specified**

Update on X2TIMER

Tuesday 19 February 2013 18:00 (15 minutes)

Presenter: KAY, Holger (DESY)

Session Classification: X-FEL Installation

Contribution ID: **66** Type: **not specified**

CW optical synchronization link

Tuesday 19 February 2013 18:15 (15 minutes)

Presenter: Mr SZYMON JABLONSKI, Szymon Jablonski (DESY)

Session Classification: X-FEL Installation

Contribution ID: **67**   Type: **not specified**

Working group 1

Tuesday 19 February 2013 18:45 (1 hour)

Racks in MO area (prepared by Czuba and Wierba, input WP28)
Installation of RF gun LLRF system (prepared by Branlard)

Session Classification: X-FEL Installation

Contribution ID: **68** Type: **not specified**

Working group 2

Tuesday 19 February 2013 18:45 (1 hour)

HVF Projects and boards for HZDR, KIT, HZB, ESS (prepared M. Hoffmann, H. Schlarb)

Session Classification: X-FEL Installation

Contribution ID: **69**   Type: **not specified**

Generic concept for front-end electronics "Laser Synchronization"

Wednesday 20 February 2013 13:00 (15 minutes)

Presenter: Dr SCHLARB, Holger (DESY)

Session Classification: Optical synchronization

Contribution ID: **70**   Type: **not specified**

Experience with Short-pulse laser and at REGAE

Wednesday 20 February 2013 13:15 (15 minutes)

Presenter: Mr FELBER, Matthias (DESY)

Session Classification: Optical synchronization

Contribution ID: **71**   Type: **not specified**

Server for Laser synchronization based on down-conversion

Wednesday 20 February 2013 13:30 (15 minutes)

Presenter: Mr KOZAK, Tomasz (DMCS)

Session Classification: Optical synchronization

Contribution ID: **72**   Type: **not specified**

Discussion on concept and board layouts

Wednesday 20 February 2013 13:45 (1 hour)

Specialized RTM for SIS8300L/SIS8325, Communication bandwidth and latency requirements, VHDL resources

Session Classification: Optical synchronization

Contribution ID: **73** Type: **not specified**

TMCB Discussion

Wednesday 20 February 2013 19:00 (1 hour)

Session Classification: LLRF and Optical Synchronization

Contribution ID: **74**   Type: **not specified**

Discussion

Wednesday 20 February 2013 17:35 (1h 10m)

Session Classification: Mass production of X-FEL components

Contribution ID: **75**
Type: **not specified**

Discussion (MTCA Infrastructure)

Wednesday 20 February 2013 10:00 (30 minutes)

Session Classification: Mass production of X-FEL components

Contribution ID: **76**   Type: **not specified**

Discussion (MTCA standard modules)

Wednesday 20 February 2013 13:45 (1 hour)

Session Classification: Mass production of X-FEL components

Contribution ID: **77** Type: **not specified**

Partial Reconfiguration

Thursday 21 February 2013 09:30 (15 minutes)

Presenter: Dr GRECKI, Mariusz (DESY)

Session Classification: Software

Contribution ID: **78**   Type: **not specified**

Further controller upgrades to improve the electron beam quality

Thursday 21 February 2013 10:45 (15 minutes)

Presenter: Mr PFEIFFER, Sven (DESY)

Session Classification: Software

Contribution ID: **79**　　　　　　　　　　　　　　　　　Type: **not specified**

DFMC-MD22

Wednesday 20 February 2013 15:30 (10 minutes)

Presenter:　Mr MEYER, Robert (DESY)

Session Classification:　Optical synchronization