

## **Session Program**

**20-26 Sept 2025**



# **ICALEPCS 2025 - The 20th International Conference on Accelerator and Large Experimental Physics Control Systems**

## ***TUPD Posters***

Palmer House Hilton Chicago  
17 East Monroe Street Chicago, IL 60603, United States of America

## Tuesday 23 September

16:00

### TUPD Posters

**Poster Session** |

**Location:** Palmer House Hilton Chicago, 17 East Monroe Street Chicago, IL 60603, United States of America

#### Design of the Korea-4GSR Timing system

**Speaker**

Sohee Park

#### Control system implementation for temperature monitoring and control for CBXFEL project

**Speaker**

Namrata Balakrishnan

#### LabVIEW-based modular control system for the Novel Electron Window Test Stand

**Speaker**

Elena Galetti

#### Development of EPICS device support on the MELSEC iQ-R embedded Linux controller

**Speaker**

Misaki Komiyama

#### Driving fusion success: target diagnostics software control at National Ignition Facility (NIF)

**Speaker**

Sukhdeep Heerey

#### EPICS driver for Universal Robots e-Series robot arms

**Speaker**

Nick Marks

#### Building the foundations of mechatronic and robotic systems for SOLEIL II automation

**Speaker**

Yves-Marie Abiven

#### Nanoscale precision multi-axis motion control for the CBXFEL project

**Speaker**

Maria Alessandra Montironi

#### Beam position monitor control system at the European Spallation Source

**Speaker**

Juliano Murari

#### Development of a beam gate control system for proton beam irradiation at KOMAC LINAC

**Speaker**

Young-Gi Song

## **Vacuum monitoring and controls acceptance testing for LCLS-II HE cryomodules at SLAC**

### **Speakers**

Rohini Sri Priya Chillara, Ziyu Huang

## **DCCT controls at the Advanced Photon Source**

### **Speaker**

Suyin Grass Wang

## **SSRF superconducting wiggler control & coil voltage monitoring system and quench monitoring results**

### **Speaker**

Tianya Meng

## **Standardizing MicroTCA integration into the TANGO control system via ChimeraTK and OPC UA at SOLEIL**

### **Speaker**

Mrs Jade Pham

## **Design and implementation of control system for ion source of Proton Radiation Effects Facility**

### **Speaker**

Pengpeng Wang

## **Power PMAC drive current case study**

### **Speaker**

Oksana Ivashkevych

## **Controls of the new eddy current septum for the CERN PS fast extraction**

### **Speaker**

Léa Strobino

## **Real Time control system upgrade of the CERN Linac4 pre-chopper**

### **Speaker**

Mr Christophe Boucly

## **Online analysis for kicker missing pulse diagnosis**

### **Speaker**

Mr Christophe Boucly

## **SIBERIA -- Stitcher, Integrated in Beamline Environment, Rigid, Infallible and Alacritous**

### **Speaker**

Marina Nikolova

## **Converting experiment data to NeXus application definitions at BESSY II**

### **Speaker**

Sonal Ramesh PATEL

## **Integrated data acquisition and processing pipelines for users at Elettra 2.0: a case study at SYRMEP, the $\mu$ CT beamline**

### **Speaker**

Adriano Contillo

**Control system upgrade of Argonne Wakefield Accelerator facility****Speaker**

Wanming Liu

**First diagnostic of the Laser Megajoule timing system****Speaker**

Thierry Somerlinck

**ALS storage ring RF control system upgrade plan and status****Speaker**

Najm Us Saqib

**Upgrade of the control systems for the CERN LHC gas system distribution modules****Speaker**

Pieter Vanslambrouck

**Supporting injector operation with the FAIR settings management system****Speaker**

Jutta Fitzek

**CERN SCADA systems 2024 large upgrade campaign retrospective****Speaker**

Lukasz Goralczyk

**From terabytes to petabyte: scaling of the archiving system for FAIR****Speaker**

Vitaliy Rapp

**Bluesky NeXus: a solution for NeXus-compliant data acquisition in Bluesky****Speaker**

Mr Daniel Tomecki

**Evaluate data lake design for the accelerator control system****Speaker**

Amol Jaikar

**Design of snapshot management in CSNS with a frontend-backend-separation architecture****Speaker**

Mingtao Li

**EPICS Archiver Appliance at Los Alamos Neutron Science Center****Speaker**

Jonathan Quemuel

**Unsupervised Anomaly Detection in ALS EPICS Event Logs****Speaker**

Thorsten Hellert

**Evolution of White Rabbit network for large-scale deployment at CERN****Speaker**

Maciej Suminski

## **The hardware and software architecture of the MTCA.4 BPM electronics for the DESY's PETRA IV accelerator**

### **Speaker**

Martin Anton Škoberne

## **KEK electron/positron injector LINAC control system**

### **Speaker**

Masanori Satoh

## **EPICS 7 upgrade for LCLS-II undulator motion control system**

### **Speaker**

Ziyu Huang

## **Homogenizing a control system with a long history**

### **Speaker**

Scott Baily

## **Status of the control system for the DELTA synchrotron light source**

### **Speaker**

Detlev Schirmer

## **Installation and commissioning progress of the 2PACL CO2 cooling control systems for Phase II upgrade of the ATLAS and CMS experiments**

### **Speaker**

Lukasz Zwalinski

## **Modernizing the RF control systems at the Advanced Photon Source**

### **Speaker**

Nicholas DiMonte

## **Technical design concept and development of the new accelerator control and timing systems for PETRA IV**

### **Speaker**

Tim Wilksen

## **Consolidation of the state control and surveillance system of the LHC Beam Dump system**

### **Speaker**

Mr Christophe Boucly

## **Motion control systems for insertion devices in Diamond-II**

### **Speaker**

Ronaldo Mercado

## **Active magnetic bearings electronic system upgrade for CERN's (HL)-LHC cryogenic 1.8 K cold compressor units**

### **Speaker**

Marco Pezzetti

## **A Python-based serial communication framework for legacy PMAC controllers**

### **Speaker**

Parvathi Sreelatha Devi

## **Assessing WinCC OA project limits to guide DCS architecture for the Phase-II ATLAS upgrade**

### **Speaker**

Nikolaos Kanellos

## **Upgrading the ALS beamline equipment protection system: software development and implementation**

### **Speaker**

Najm Us Saqib

## **Design and commissioning of the upgraded ALS SR RF cavity water control system**

### **Speaker**

Najm Us Saqib

## **The White Rabbit Collaboration: An innovative model of public-private partnership**

### **Speaker**

Evangelia Gousiou

## **Fiber signal attenuation due to temperature**

### **Speaker**

Daniel Sanchez

## **Refurbishment strategy of the GANIL cyclotrons control system**

### **Speaker**

Mr Christophe Haquin

## **Ensuring reliability and feasibility of software alarms with PHOEBUS in EPICS network for ALS-U**

### **Speaker**

Soo Ryu

## **A remote-controlled high voltage power supply using open source firmware modules**

### **Speaker**

Guilherme Ricioli

## **Development of MTCA.4 at ESS**

### **Speaker**

Faye Chicken

## **The control system of sub-cooled liquid nitrogen cooling system for C11 CPMU at SSRF**

### **Speaker**

Tianya Meng

## **Leveraging agile methodologies for efficient conference delivery: a case study from ICALEPCS 2023 Africa**

### **Speakers**

Bulelani Xaia, Naadjia Padavattan

## **APS-U storage ring power supply interlock and temperature monitoring control system**

**Speaker**

Shifu Xu

**Federated PV management and cross-network data archiving framework for distributed EPICS systems in Korea-4GSR****Speaker**

sunwoo Kang

**Modernizing control system for klystron test stand at LANSCE****Speaker**

Jonathan Quemuel

**Nanoprobe diffraction and scattering method - BCDI, ptychography, robotics****Speaker**

Jun Yee Tan

**Novel distributed fast controls architecture for the consolidation of CERN's PS kickers****Speaker**

Léa Strobino

**HDB++, a retrospective on 5+ years using Timescale****Speaker**

Reynald Bourtembourg

**RTST vacuum control system design****Speaker**

Jianxun Yan

**Beam Synchronized Acquisition and enhancements to associated services****Speaker**

Kukhee Kim

**The IRRAD Proton Irradiation Facility Data Management, Analytics, Control and Beam Diagnostic systems: current performance and outlook beyond the CERN Long Shutdown 3****Speaker**

Federico Ravotti

**Upgrade of the Los Alamos Neutron Science Center (LANSCE) Beam Chopper Pattern Generator****Speaker**

Anthony Braidó

**Advanced controls infrastructure for Diamond Light Source****Speaker**

Gareth Nisbet

**Adaptive approach to spatial interpolation and visualization of scattered monitoring data at CERN****Speaker**

Carlo Maria Musso

**EPICS-based X-ray beam intensity monitoring for the CBXFEL project at SLAC LCLS**

**Speaker**

An Le

**Trigger synchronization unit consolidation for SPS and LHC beam dumping kickers systems****Speaker**

Léa Strobino

**Embracing the accelerator computing revolution at SLAC****Speaker**

Greg White

**Enhancing scanning nano-tomography instrumentation with a magnetic levitation stage****Speaker**

Yves-Marie Abiven

**Continuous integration of control systems in parallel to the existing systems of LIPAc, for a radio-frequency conditioning test bench.****Speaker**

Lucas Maindive

**The ESS Synchronous Data Service (SDS) development and first results****Speaker**

João Paulo Scalão Martins

**Towards sustainable work management in scientific facilities: applying Kanban at ALBA Controls****Speaker**

Zbigniew Reszela

**Universal LIMS for Diamond****Speaker**

Ian Bush

**The Enhanced Liquid Interface Spectroscopy and Analysis (ELISA) beamline control system prototype****Speaker**

Maxim Brendike

**Towards the implementation of a new European XFEL scientific data policy - challenges and chances.****Speaker**

Janusz Malka

**SOLARIS synchrotron control system upgrade: addressing challenges and implementing solutions****Speaker**

Michał Fałowski

**Control software and technology choices for the electron-ion collider****Speaker**

Md Latiful Kabir



**Proof of concept of a PLC based emittance meter for the NEWGAIN project****Speaker**

Clement Hocini

**A TimescaleDB and Grafana framework for ATLAS DCS data flow****Speaker**

Paris Moschovakos

**Development of an EtherCAT-based control system for an In-Vacuum Undulator for SPring-8-II****Speaker**

Kosei Yamakawa

**Time served - a look at the past, present, and future of timing at Fermilab****Speaker**

Evan Milton

**Development of GigE vision camera control system and application to beam diagnostics for SPring-8 and NanoTerasu****Speaker**

Dr Akio Kiyomichi

**Automated test execution framework for experiment control systems at LCLS****Speaker**

Christian Tsoi-A-Sue

**Building the backbone: cable plant planning, design, and progress for SLAC's MEC-U project****Speaker**

Mitchell Cabral

**Accelerator Process Water Upgrade at ANL/APS****Speaker**

James Stevens

**No child left behind: managing requirements, interfaces, and communication in high-impact projects****Speaker**

Mitchell Cabral

**Overview of the LCLS-II superconducting timing system design****Speakers**

Carolina Bianchini Mattison, Daniel Sanchez

**GPS IRIG-B over the fiber - an alternative to NTP****Speaker**

Mr Adrian Hernandez

**Progress update on the superconducting undulator control system for the European XFEL****Speaker**

Mikhail Yakopov

## **Upgrading hardware and software for the LANSCE PSR ExBPM with FPGA based high speed digitizers**

### **Speaker**

Tyagi Ramakrishnan

## **A new PLC based control system to orchestrate the PS main power converters**

### **Speaker**

Marcos Marin Rodriguez

## **Modernization of DARHT Axis I Timing and Logic**

### **Speaker**

James Maslow

## **Seven years of progress: Optimising controls hardware data management at CERN for enhanced efficiency and reliability**

### **Speaker**

Ioan Kozsar

## **New L2SI dynamic reaction microscope endstation in TMO: control system design, installation and integration**

### **Speaker**

Jing Yin

## **EPICS Summer School: training future scientific control system experts**

### **Speaker**

Luca Porzio

## **A shared virtual machine framework for EPICS hands-on training**

### **Speaker**

Ralph Lange

## **Update on migration to EPICS at the ISIS accelerators**

### **Speaker**

Dr Ivan Finch

## **Modernization of PLC-based control systems at SNS**

### **Speaker**

Isaiah Beaushaw

## **Automatic bunch targeting for single-bunch beam position monitors**

### **Speaker**

Ran Hong

## **Design and performance of a novel data acquisition and processing system for the APS Upgrade front end XBPM**

### **Speaker**

Hairong Shang

17:30