Session Program

13–17 May 2019

12th IAEA Technical Meeting on Control, Data Acquisition and Remote Participation for Fusion Research

Minioral

Daejeon, Republic of Korea

Monday 13 May

14:00

Minioral: Plasma Control Miniorals

Session | **Location:** Daejeon, Republic of Korea

14:00–14:05 **The Implementation and operation of the 4th version of KSTAR Fast Interlock System**

Speaker
Mr Myungkyu Kim

14:05–14:10 **WestBox: an object-oriented software component for WEST CODAC**

Speaker
Gilles Caulier

14:10–14:15 **Low-risk Beginning of the Density Feedback Control in KSTAR**

Speaker
Dr June-Woo Juhn

14:15–14:20 **Real-time classification of L-H transition and ELM in KSTAR**

Speaker
Giwook Shin

14:20–14:25 **The MAST Upgrade Plasma Control System**

Speaker
Graham McArdle

14:25–14:30
Design and development plan for control and data acquisition system of Thailand Tokamak 1 (TT1)

Speaker
Arlee Tamman

14:30–14:35 **Development of high-current power supplies for the TCABR tokamak**

Speaker
Prof. Alessandro Santos

14:35–14:40 **Development of a new CODAS for the TCABR tokamak**

Speaker
Dr Wanderley Pires de Sá

14:40–14:45 **Preparations for the control of HL-2M first plasma campaign**

Speaker
Dr Bo Li

14:45–14:50 **Use of Actuator management in ASDEX Upgrade control**

Speaker
Dr Ondrej Kudlacek

14:50–14:55 **An overview of the upgrade of the TCABR tokamak**

Speaker
Prof. Gustavo Canal

14:55–15:00

Determination of Radiated Power Density Profile Using Bolometer Data for DT Baseline Scenario at JET

Speaker
Gediminas Stankunas

15:00

Tuesday 14 May

10:00

Minioral: KI related Miniorals

Session | **Location:** Daejeon, Republic of Korea

10:00–10:05 **Real-time ELM recognition system based on deep learning**

Speaker
Prof. Fan Xia

10:05–10:10 **New decimation method for fusion research data**

Speaker
Rodrigo Castro Rojo

10:10–10:15 **A database dedicated to development of machine learning based disruption predictors**

Speaker
Mr Qiqi Wu

10:15–10:20
Implementation of an FPGA-based DAQ and Processing system for Neutron-Diagnostics using Nominal Device Support, OpenCL and MTCA

Speaker
Mr Miguel Astrain

10:20–10:25 **Real-Time Processing the MSE data with GPGPU in KSTAR**

Speaker
Taegu Lee

10:25–10:30 **Exploring MDSplus data-acquisition and analysis software with JupyterLab**

Speaker
Fernando Santoro

10:30

Wednesday 15 May

14:40

Minioral: FNT, MCR & DTI

Session | **Location:** Daejeon, Republic of Korea

14:40–14:45 **Development of real time framework for parallel streaming data processing**

Speaker
Dr giil kwon

14:45–14:50 **Evaluation of the Backup Signal-Processing System of the KSTAR Quench Detection System**

Speaker
Hirofumi Yonekawa

14:50–14:55 **Realization of the requirements for a safe operation of Wendelstein 7-X**

Speaker
Jörg Schacht

14:55–15:00 **First experience with the W7-X Fast Interlock System**

Speaker
Reinhard Vilbrandt

15:00–15:05 **Development of the JT-60SA Experiment Database System**

Speaker
Ms Riho Yamazaki

15:05–15:10 **Reliable Local Controller for ITER Coil Power Supply**

Speaker
Mr Chungsan Lee

15:10–15:15 **W7-X Logbook REST API for processing metadata and experiment data enrichment at the Wendelstein 7-X stellarator**

Speaker
Michael Grahl

15:15–15:20 **EAST MDSplus Log Data Management System**

Speaker
Feng WANG

15:20

Thursday 16 May

10:00

Minioral: DASP

Session | **Location:** Daejeon, Republic of Korea

10:00–10:05 **Plasma Diagnostics in the Optical and X-Ray Regions on the IEC Plasma Device**

Speaker
Dr Gamal Elaragi

10:05–10:10 **Multi-channel analog lock-in system for real-time motional Stark effect measurements**

Speaker
Hanmin Wi

10:10–10:15
Integration of data acquisition devices in the ITER Real-Time Framework using Nominal Device Support

Speaker
Dr Sergio Esquembri

10:15–10:20
Development of Local-Imaging and High-Speed Visible Diagnostics for Real-Time Plasma Boundary Reconstruction of EAST

Speaker
Prof. Biao Shen

10:20–10:25
Standardization of software device driver implementation for data acquisition and timing devices in ITER CODAC Core System: Nominal Device Support

Speaker
Mr Miguel Astrain

10:25–10:30
Framework for development of software for laboratory equipment and experimental setup subsystems integrated into large scale DAQ systems (LabBot)

Speaker
Mr Alexandr Chernakov

10:35

11:45

Minioral: RPVL

Session | **Location:** Daejeon, Republic of Korea

11:45–11:50
Graphic interactive environment for remote data analysis and visualization with a view on ITER

Speaker
Dr Ernesto Fabregas

11:50–11:55 **Web-based Streamed Waveform Display using MDSplus events and Node.js**

Speaker
Gabriele Manduchi

11:55–12:00
The Information Technology tools for remote participation and remote experiment control of WEST

12:00

Speaker
Thierry Hutter