

Session Program

13–17 May 2019

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

Plenary Oral

Daejeon, Republic of Korea

Monday 13 May

09:20

Plenary Oral: Control Systems

Session | Location: Daejeon, Republic of Korea

09:20–09:40 **ITER Operation Application Systems for plant system integration and commissioning**

Speaker

Mikyung Park

09:40–10:00 **EAST research activities on control and data toward CFETR**

Speaker

Prof. Bingjia Xiao

10:00–10:20

Design and Development of a Cost Optimized Timing System for Steady state Superconducting Tokamak (SST-1)

Speaker

Mr Jasraj Dhongde

10:20–10:40 **Introduction of ITER CODAC Relevant Technologies on JET and MAST**

Speaker

Dr John Waterhouse

10:40

11:10

Plenary Oral: Plasma Control 1

Session | Location: Daejeon, Republic of Korea

11:10–11:30

Advances and challenges in KSTAR plasma control toward long-pulse, high-performance experiments

Speaker

Dr Sang-hee Hahn

11:30–11:50 **Current State of DIII-D Plasma Control System**

Speaker

Martin Margo

11:50–12:10 **The first implementation of active divertor heat flux feedback control in EAST PCS**

Speaker

Dr Qiping Yuan

12:10–12:30

MARTe2 and MDSplus integration for a comprehensive Fast Control and Data Acquisition System

Speaker

Gabriele Manduchi

12:30

Tuesday 14 May

09:00

Plenary Oral: Neural Network Methods

Session | Location: Daejeon, Republic of Korea

09:00–09:20

Automatic recognition of anomalous patterns in discharges by recurrent neural networks

Speaker

Ernesto Fabregas Acosta

09:20–09:40

Automatic recognition of plasma relevant events: implications for ITER

Speaker

Dr Jesús Vega

09:40–10:00

Disruption Predictor Based on Neural Network and Anomaly Detection

Speaker

Dr Wei Zheng

10:00

11:00

Plenary Oral: Plasma Control 2

Session | Location: Daejeon, Republic of Korea

11:00–11:20

Fast scenario design for alternative magnetic diverted discharge on EAST

Speaker

Zhengping Luo

11:20–11:40

Rapid prototyping of advanced control schemes in ASDEX Upgrade

Speaker

Bernhard Sieglin

11:40–12:00

Real-time MHD Analysis Computer System Design, Architecture, and Integration with PCS

Speaker

Keith Erickson

12:00–12:20

Integrated Data Acquisition, Storage and Retrieval for Glass Spherical Tokamak (GLAST)

Speaker

Muhammad Aqib Javed

12:20–12:40

From Tore Supra to WEST : Evolution of CODAC infrastructure

Speaker

Mr Benjamin Santraine

12:40

Wednesday 15 May

09:00

Plenary Oral: MCR & DTI

Session | Location: Daejeon, Republic of Korea

09:00–09:20 **State-full Asynchronous Event Server and Clients**

Speaker

Basil Duval

09:20–09:40 **Application of LHD Post Data Analysis Systems to the KSTAR Project**

Speaker

Masahiko Emoto

09:40–10:00 **Design for the Distributed Data Locator Service for Multi-site Data Repositories**

Speaker

Hideya Nakanishi

10:00–10:15 **Control system of Neutral Particle Analyser in energy sweeping mode.**

Speaker

Dr Mykola Dreval

10:15–10:30 **Design of the Interlock System for MITICA**

Speaker

Mr Adriano Luchetta

10:30

11:00

Plenary Oral: PC3, MCR & DTI

Session | Location: Daejeon, Republic of Korea

11:00–11:20 **An efficient MHD equilibrium solver for control oriented transport models**

Speaker

Pablo Garcia-Martinez

11:20–11:40 **Validation of the Fenix ASDEX Upgrade flight simulator**

Speaker

Dr Filip Janky

11:40–12:00

Navigational Data Management - A general approach to representation and exploitation of relationships in scientific data sets

Speaker

Mr Joshua Stillerman

12:00–12:20 **Dockerizing MDSplus for use with custom data collection devices**

Speaker

Stephen Lane-Walsh

12:20

14:00

Plenary Oral: DASP Systems

Session | Location: Daejeon, Republic of Korea

14:00–14:20

A full stack data acquisition, archive and access solution for J-TEXT based on Web technologies

Speaker
Mr Yuxing Wang

14:20–14:40 **Strategy for diagnostics integration into W7-X CoDaC for OP2**

Speaker
Dr Axel Winter

14:40

Thursday 16 May

09:00

Plenary Oral: DASP

Session | Location: Daejeon, Republic of Korea

09:00–09:20

Methodology to standardize the development of FPGA-based intelligent DAQ and processing systems on heterogeneous platforms using OpenCL

Speaker

Mr Miguel Astrain

09:20–09:40

Design of GPU-based Parallel Computation Architecture of Thomson Scattering Diagnostic in KSTAR

Speaker

Seung-Ju Lee

09:40–10:00

Recent Diagnostic Developments with the ASDEX Upgrade Standard Data Acquisition System using the FPGA implemented Serial I/O card „SIO2“

Speaker

Dr Karl Behler

10:00

11:05

Plenary Oral: RPVL

Session | Location: Daejeon, Republic of Korea

11:05–11:25

Remote Experiment with WEST from ITER Remote Experiment Centre

Speaker

Shinsuke Tokunaga

11:25–11:45

RUSSIAN PROTOTYPE OF ITER REMOTE PARTICIPATION CENTER

Speakers

Dr Igor Semenov, Mr Oleg Semenov

11:45