**Session Program** 

13-17 May 2019

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

#### Poster

Daejeon, Republic of Korea

### Monday 13 May

| Speaker         Dr B LI         Use of Actuator management in ASDEX Upgrade control         Speaker         Dr Ondrej Ondrej Kudlacek         Low-risk Beginning of the Density Feedback Control in KSTAR         Speaker         Dr June-Woo Juhn         Real-time classification of L-H transition and ELM in KSTAR         Speaker         Giwook Shin         Development of a new CODAS for the TCABR tokamak         Speaker         Dr Wanderley Pires de Sá   | Prepar    | tions for the control of HL-2M first plasma campaign   |
|--|-----------|--|
| Use of Actuator management in ASDEX Upgrade control<br>Speaker<br>Dr Ondrej Ondrej Kudlacek<br>Low-risk Beginning of the Density Feedback Control in KSTAR<br>Speaker<br>Dr June-Woo Juhn<br>Real-time classification of L-H transition and ELM in KSTAR<br>Speaker<br>Giwook Shin<br>Development of a new CODAS for the TCABR tokamak<br>Speaker<br>Dr Wanderley Pires de Sá<br>Determination of Radiated Power Density Profile Using Bolometer Data for DT Baseline Scenario at J<br>Speaker<br>Gediminas Stankunas<br>Design and development plan for control and data acquisition system of Thailand Tokamak 1 (TT1)<br>Speaker<br>Arlee Tamman<br>Development of high-current power supplies for the TCABR tokamak<br>Speaker<br>Prof. Alessandro Santos<br>An overview of the upgrade of the TCABR tokamak<br>Speaker<br>Prof. Gistaro Canal<br>The MAST Upgrade Plasma Control System<br>Speaker<br>Graham McArdle<br>WestBox: an object-oriented software component for WEST CODAC   |           |  |
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| Prof. Gustavo Canal The MAST Upgrade Plasma Control System Speaker Graham McArdle WestBox: an object-oriented software component for WEST CODAC  | An ove    | view of the upgrade of the TCABR tokamak   |
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| Graham McArdle WestBox: an object-oriented software component for WEST CODAC   |           |  |
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|  | WestB     | ox: an object-oriented software component for WEST CODAC                                     |
|  |           |  |

### Wednesday 15 May

| A data           | abase dedicated to development of machine learning based disruption predictors           |
|------------------|--|
| Speak            |  |
| Mr Qi            | qi Wu  |
| Imple            | mentation of an FPGA-based DAQ and Processing system for Neutron-Diagnostics using Nomi  |
| Devic            | e Support, OpenCL and MTCA   |
| Speak            |  |
| Mr Mi            | guel Astrain   |
| Real-1           | Time Processing the MSE data with GPGPU in KSTAR   |
| Speak            | er   |
| Taegu            | Lee  |
| New              | decimation method for fusion research data   |
| Speak            | er   |
| Rodrig           | o Castro Rojo  |
| Explo            | ring MDSplus data-acquisition and analysis software with JupyterLab                      |
| Speak            |  |
| •                | ndo Santoro  |
| Real-f           | ime ELM recognition system based on deep learning  |
|                  |  |
| Speak<br>Prof. F | er<br>an Xia   |
| EACT             |  |
|                  | MDSplus Log Data Management System   |
| Speak<br>Feng \  | er<br>NANG   |
| -                |  |
| Deve             | opment of the JT-60SA Experiment Database System   |
| Speak            | er<br>no Yamazaki  |
|                  |  |
| W7-X             | Logbook REST API for processing metadata and experiment data enrichment at the Wendelste |
| X stel           | larator  |
| Speak            |  |
| Micha            | el Grahl   |
| The Ir           | nplementation and operation of the 4th version of KSTAR Fast Interlock System            |
| Speak            | er   |
| Mr M             | /ungkyu Kim  |
| Evalu            | ation of the Backup Signal-Processing System of the KSTAR Quench Detection System        |
| Speak            |  |
| •                | mi Yonekawa  |

 Speaker

 Jörg Schacht

 Reliable Local Controller for ITER Coil Power Supply

 Speaker

 Mr Chungsan Lee

 First experience with the W7-X Fast Interlock System

 Speaker

 Reinhard Vilbrandt

 Development of real time framework for parallel streaming data processing

18:00

**Speaker** Dr giil kwon

## Thursday 16 May

| Pla | asma Diagnostics in the Optical and X-Ray Regions on the IEC Plasma Device                           |
|-----|--|
|     | peaker   |
| D   | r Gamal Elaragi  |
| М   | ulti-channel analog lock-in system for real-time motional Stark effect measurements                  |
| Sr  | peaker   |
|     | lanmin Wi  |
| In  | tegration of data acquisition devices in the ITER Real-Time Framework using Nominal Device Suppo     |
|     | peaker   |
|     | preakei<br>In Sergio Esquembri   |
|     |  |
|     | andardization of software device driver implementation for data acquisition and timing devices in IT |
| CC  | ODAC Core System: Nominal Device Support   |
|     | peaker   |
| M   | 1r Miguel Astrain  |
| De  | evelopment of Local-Imaging and High-Speed Visible Diagnostics for Real-Time Plasma Boundary         |
|     | econstruction of EAST  |
| SI  | peaker   |
|     | rof. Biao Shen   |
|     |  |
| Th  | ne Information Technology tools for remote participation and remote experiment control of WEST       |
| Sr  | peaker   |
| Tł  | hierry Hutter  |
| Gr  | raphic interactive environment for remote data analysis and visualization with a view on ITER        |
|     | peaker   |
| •   | preaker<br>In Ernesto Fabregas   |
|     |  |
|     | amework for development of software for laboratory equipment and experimental setup subsystem        |
| int | tegrated into large scale DAQ systems (LabBot)   |
| S   | peaker   |
| Μ   | Ir Alexandr Chernakov  |
| w   | eb-based Streamed Waveform Display using MDSplus events and Node.js                                  |
|     |  |
|     | peaker<br>abriele Manduchi   |