PCBS: PLC based control systems Workshop

Report of Contributions

https://indico.cern.ch/e/811867

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

BNL - Brookhaven National Laboratory

Saturday 5 October 2019 10:40 (5 minutes)

Summary

Presenter: GUERRERO, Christopher (BNL)

Session Classification: Presentation of Institutes

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

CERN - European Center for Nuclear Research

Saturday 5 October 2019 10:45 (5 minutes)

Presenter: ORTOLA VIDAL, Jeronimo (CERN)

Session Classification: Presentation of Institutes

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

Diamond Light Source

Saturday 5 October 2019 10:50 (6 minutes)

Presenter: JONES, Kenneth

Session Classification: Presentation of Institutes

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

ESO - European Southern Observatory

Saturday 5 October 2019 10:56 (5 minutes)

Presenter: KIEKEBUSCH, Mario

Session Classification: Presentation of Institutes

Contribution ID: **40** Type: **not specified**

ESS - European Spallation Source

Saturday 5 October 2019 11:01 (6 minutes)

Summary

Presenter: ASENSI CONEJERO, Emilio (ESS)

Session Classification: Presentation of Institutes

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

XFEL - European XFEL

Saturday 5 October 2019 11:07 (5 minutes)

Presenter: COPPOLA, Nicola (XFEL)

Session Classification: Presentation of Institutes

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

GEMINI

Saturday 5 October 2019 11:18 (5 minutes)

Summary

Presenter: BIRCHARD, Mariah

Session Classification: Presentation of Institutes

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

Argonne

Saturday 5 October 2019 11:12 (6 minutes)

Presenter: REYNA, Juan (ANL)

Session Classification: Presentation of Institutes

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

SLAC National Accelerator

Saturday 5 October 2019 11:23 (6 minutes)

Presenter: TAO, Feng

Session Classification: Presentation of Institutes

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

Cognitive Automation Engineering

Saturday 5 October 2019 09:10 (1 hour)

This research studies the application of knowledge representation and artificial intelligence to automation engineering. Cognitive Automation Engineering is software that understands the automation task, learns from experience, reasons systematically and cooperates with the automation engineer. The goal of this new technology is to make automation engineering easier, faster and more reliable by allowing automation engineering tools to capture and reuse engineering knowledge systematically. Cognitive Automation Engineering will provide proactive in addition to reactive engineering assistance using new interaction patterns such as questions and recommendations. Cognitive Automation Engineering will integrate engineering knowledge from different engineering sources for a smart automation engineering assistant. We have developed a prototype Cognitive Automation Engineering assistant that is integrated with a state-of-the-art engineering system.

Presenter: Dr QUIROS ARAYA, Gustavo (SIEMENS)

Session Classification: Technology trends

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

CEM: Cause Effect Matrix specifications (CERN)

Saturday 5 October 2019 11:30 (15 minutes)

Presenter: FERNANDEZ ADIEGO, Borja (CERN)

Session Classification: Specifications

Contribution ID: **47** Type: **not specified**

State machine driven applications for instruments (ESO)

Saturday 5 October 2019 14:00 (15 minutes)

Presenter: KIEKEBUSCH, Mario

Session Classification: Project development

Contribution ID: **48** Type: **not specified**

Process Control Specs (CERN)

Saturday 5 October 2019 11:45 (12 minutes)

Presenter: ORTOLA VIDAL, Jeronimo (CERN)

Session Classification: Specifications

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

PLC factory (ESS)

Saturday 5 October 2019 14:15 (15 minutes)

Presenter: ASENSI CONEJERO, Emilio

Session Classification: Project development

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

Continuous Integration for PLC-based Control Systems (CERN)

Saturday 5 October 2019 14:40 (15 minutes)

Presenter: Dr SCHOFIELD, Brad (CERN)

Session Classification: Testing & verification

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

Device Simulation: Improving testing coverage of PLC code (ESO)

Saturday 5 October 2019 14:55 (15 minutes)

Presenter: DIAZ, Carlos

Session Classification: Testing & verification

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

Demo of the PLCVerif: A formal verification tool (CERN)

Saturday 5 October 2019 15:10 (15 minutes)

Presenter: FERNANDEZ ADIEGO, Borja (CERN)

Session Classification: Testing & verification

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

Application Management Tool (DIAMOND)

Saturday 5 October 2019 16:00 (15 minutes)

Presenter: JONES, Ken

Session Classification: Application management

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

Application Management (ORNL)

Saturday 5 October 2019 16:15 (15 minutes)

Summary

Presenter: WILLIAMS, Derrick (ORNL)

Session Classification: Application management