Pathways towards a Modelling and Architecture Language for Interoperable Cyber-Physical Systems

Georg Weichhart, Hervé Panetto, Wided Guérdia, Gash Bhullar and Néjib Moalla

Founding of IFIP 5.8
Enterprise Interoperability 2008

Workshop starts 10:30

IFAC CC 5 and TC5.x chairs
INCOM2018
Workshop 8.

Pathways towards a Modelling and Architecture Language for Interoperable Cyber-Physical Systems

18 novembre 2020
10h30 - 12h30

Chair: Georg Weichhart, Hervé Panetto

Rethinking Interoperable Cyber-Physical Systems (CPS) as Interactive Behavior Designs.
Christian Stary

Path simulation in BPMN workflow using resource aggregation.
Kawtar Ougaabal, Grégory Zacharewicz, Yves Ducq and Said Tazi

How to design a smart factory?
Magnus Åkerman, Patrik Fager and Åsa Fast-Berglund

Pathways to CP(P)S Modelling & Architecting.
Georg Weichhart, Hervé Panetto, Wided Guèrdia, Gash Bhullar and Néjib Moalla

Join session Close
Pathways to CP(P)S Modelling & Architecting

Georg Weichhart, Hervé Panetto, Wided Guérdia, Gash Bhullar and Néjib Moalla

I-ESA 2020 Workshop
Interoperable CPS Modelling & Architecting (I-CPS 2020)
EFFRA's Connected Factories

1. Spreadsheets, text editors and paperwork
   - Excel / Word Based ERP
   - Excel / Word Based MOM
   - Manual data acquisition

2. Software and data silos
   - Dedicated ERP, Software implemented
   - Dedicated MOM, Software implemented
   - Data acquisition, monitoring, analysis, (SCADA) - isolated systems

3. Connectivity
   - MOM-ERP systems connected
   - MOM and SCADA / PLC systems, connected
   - IoT enabled SCADA, MOM-MES, ERP (...) connectivity

4. Off-line optimisation
   - Off-line Digital Manufacturing, Process Optimisation on factory level
   - Off-line Digital Manufacturing, Optimisation on machine level
   - Humans actively connected

5. Realtime optimisation
   - Autonomous, Online Realtime Digital Manufacturing, Process Optimisation on factory level
   - Autonomous, Online Realtime Digital Manufacturing, Process Optimisation on machine level
   - Platform enabled optimisation
Pathways for Interoperable Cyber-Physical (Production) Systems

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<td>System</td>
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