26th Conference of Open Innovations

Association FRUCT

Yaroslavl, Russia, 20-24 April 2020

The 1st International Workshop on
Planning and Controlling of Smart Manufacturing Systems (PCSMS'20)

We welcome you to take part in the 1st International Workshop on Planning and Controlling of Smart Manufacturing Systems (PCSMS'20, https://www.fruct.org/PCSMS20) that will be held on the main days of 26th FRUCT conference (https://www.fruct.org/cfp).

Overview

Integration and deployment of ICT, IoT and AI technologies into manufacturing systems has led to the appearance of new type of intelligent and data-driven production systems, namely "Smart Manufacturing Systems". Smart manufacturing systems are able to monitor the current situation (environmental conditions, demand, state of the system itself), predict trends and patterns in operational parameters, and respond to changes in real time in a collaborative manner either within one company or across a supply chain. Planning and controlling of such (system of) systems is a complex task that requires development of various methods and models enabling smooth functioning and adaptive behavior. The workshop is aimed at bringing together people interested to discuss challenges, opportunities, methods and models related to smart manufacturing systems.

The topics of interest include (but not limited to) the following subject areas:
- Semantic interoperability support in dynamic systems consisting of multiple independent participants.
- Ontology-based knowledge representation in smart manufacturing systems.
- AI enhanced planning and controlling in dynamic adaptive manufacturing systems.
- Optimization strategies in dynamic adaptive manufacturing systems.
- Job-knowledge management in cyber physical production systems.
- Modeling and predicting KPIs for assessing productivity and economic impact of smart manufacturing systems.

The PCSMS'20 is organized by TU Wien (Vienna, Austria), Fraunhofer Austria (Vienna, Austria), SPIIRAS (St.Petersburg, Russia), and FRUCT (Helsinki, Finland) as a regular session of the FRUCT conference. We welcome researchers as well as industry stakeholders to submit papers and take part in the workshop to share their research and findings.

Submissions and publications

For submission deadlines and other important dates please refer to the rules of FRUCT26 conference. The papers submission and evaluation are conducted via FRUCT submission process.

You can select one of the following 2 types of submissions:
- Full papers (min 6 full pages and up to 12 pages), deadline **February 28, 2020**;
- Short papers (min 2, max 5 pages), deadline **February 28, 2020**.

All papers must include references in the allotted page limits. Please note that an author can be a coauthor of a maximum of three documents of all types.

Accepted Full papers and extended abstracts are published in the proceeding of FRUCT conference (ISSN 2305-7254). All accepted Full Papers will be included to **IEEE Xplore** and **DOAJ**, and indexed by **Scopus**, **ACM**, **Web of Science**, RSCI/**РИНЦ** (as journal publication), **DBLP**, etc. The selected papers get invitations to publish extended papers in the partner journals, e.g., IJERTCS (**SJR** quartile: **Q2**). The Full Papers section of the proceedings is included to Scimago Journal Rank. FRUCT has high rating in national systems, e.g., Finnish (**JUFO=1**, JufoID: 72707), Norwegian (**NSD=1**), Danish (**BFI=1**, ID: 8782540).

Organizing Committee

Alexander Smirnov (SPIIRAS)
Fazel Ansari (TU Wien & Fraunhofer Austria)
Nikolay Shilov (SPIIRAS)

Contact information

If you get some questions that are not covered in the CFP, feel free to contact
Nikolay Shilov (nick<at>iias.spb.su).

SPIIRAS

TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

Fraunhofer
AUSTRIA

imw Research Group of Smart and Knowledge-Based Maintenance