

# 2019 IEEE International Conference on Industrial Informatics (INDIN'19)

Special Session/ Organized Session on

## “Practical and theoretical aspects of social and economic foundations of cyber-physical systems and Industry 4.0”

organized by

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### Call for Papers

Cyber-physical systems (CPS) and Industry 4.0 become nowadays pervasive providing solutions to multiple domains having a simultaneous impact both on the business and on the society. This impact can be seen in multiple fields. Some of them are obvious, like for example, the impact on the human capital development and socioeconomic growth and novel business models taking advance from the new technological approaches. The ongoing development is strongly influenced by enterprises developing novel digital solutions that apply novel technical and organizational innovations. However, the solutions require continuous development of human capital as high innovation capability is required on organizational and on individual levels.

However, a deeper theoretical analysis of the essence of CPS and Industry 4.0 makes indispensable also the need to rethink some basic phenomena building up the foundations for the further social and economic analyses. The shift of understanding concerns issues like the role of the human in the context of the development of technologies like Artificial intelligence (AI) making urgent such problems as privacy, subjectivity, legal responsibility, etc. Knowledge is a further issue demanding rethinking in the light of the artificial cognitive systems. Technologies like blockchain put in question traditional flows of goods. Such

issues and changes create unprecedentedly new foundations for our societies and their organizations and thus demand fundamental scientific reflection.

This Special Session is initiated with the aim to connect researchers, practitioners and industrialists to discuss the extended and deeper foundations of the social and economic aspects and issues related with the recent technical development containing such fields as data understanding and usage, artificial cognitive systems and their influence, human in the loop with the different systems and many others.

Topics of interest include, but are not limited to:

Innovative Business Models; Industry 4.0; CPS and entrepreneurs; Human Capital development; Social, humanistic and economic aspects of digitization, human in the loop, artificial cognitive systems, new definitions and approaches.

**Submissions Procedure and Deadlines:** All the instructions for paper submission are included in the conference website <https://www.indin2019.org/>