



SUB-THEME 2: CHANCES AND CHALLENGES OF SUSTAINABILITY IN DESIGNING CYBER-PHYSICAL PRODUCTION SYSTEMS FOR HUMANS

convenors:

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objective:

Cyber-physical production systems (CPPS) take the web-of-things approach to professional domains, dramatically changing the way humans interact and cooperate with production systems. In this sub-theme we wish to elaborate the challenges and chances of designing CPPS with a focus on social, ecological as well as economic dimensions.

description:

Cyber-physical production systems (CPPS) take the web-of-things approach to professional domains (i.e. to business organizations, production plants,...), dramatically changing the way humans interact and cooperate with production systems. Technological innovation leads to increased complexity, dynamic systems configurations etc., leaving the human operators as the "limiting factor".

In order to allow suitable working conditions that support and promote the operators while enabling high efficiency of the CPPS, new approaches of human-machine interaction and cooperation are to be designed. In this sub-theme we wish to elaborate the challenges and chances of designing CPPS with a focus on social, ecological as well as economic dimensions.

keywords:

Cyber-Physical Systems; Web of Things; Organizationl Chance; Human-Machine-Interfaces; Working Conditions; Industrial Design; Sustainability

references:

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