

Resilience of Cyber-Physical Production Systems in industry 4.0: Issues, modelling, implementation and evaluation

Cyber-Physical Production Systems (CPPS) are now the trend towards which production is moving and especially under industry 4.0 context. Considering the complexity and the uncertainty characterizing their operational environments, resilience becomes a key requirement that should be considered in addition to the traditional performance and quality of service criteria (such as flexibility, responsiveness, reliability, etc.) used in the design, management, and operation of these systems. Therefore, this session aims to highlight the research on CPPS resilience. Its goal is to carry out a mapping of the works related to resilience and its application in different domains and scientific disciplines. The fourth industrial revolution promises enhanced connection between smart systems and people and becomes thus the appropriate context to make systems more resilient. The challenges of resilience in CPPs have also captured the interest of the scientific community. Similarly, this session will serve as a forum emerging interdisciplinary research relevant to resilience and performance improvement of CPPs within the Industry 4.0 context.