



DIG PhD scholarship

Title	Organization 4.0: alternative models of work organization and technological applications in Smart Manufacturing
Theme	<p>Manufacturing is facing a dramatic change as a consequence of the recent Industry 4.0 technological revolution, often referred to as Smart Manufacturing (SM). Academic and practitioner debates envision different paths for the evolution of the work organization when SM technologies are implemented in production processes, since this implementation often requires significant changes in the work organization, practices and competencies needed. Preliminary studies show how the implementation of SM can result in at least two different organizational models, one which exploits technology to substitute the human work and one which instead exploit technology to empower the operators, enlarging the nature of tasks and the level of autonomy. Also, evidence shows that the project and change management approaches to Smart Manufacturing introduction are strongly interlinked with the resulting organizational model.</p> <p>. The aim of this stream of research - that will be the focus of the proposed PhD scholarship - is to study the complex interplay between smart technologies, work organization practices and implementation practices, with the aim of exploring the different alternative models for organizing work and designing jobs and activities. In particular, contingent variables, organization of work at the micro and macro level, the design and implementation process, and the different technological “use case” will be the object of the study, in order to identify emerging best practices able to improve operational performance and workers satisfaction, coherently with the company business.</p> <p>Some of the possible questions are: How will the evolution of technology and the implementation of the Smart Manufacturing paradigm change the work organization practices in the factories? How will the balance between manual jobs and brain-intensive jobs change as a consequence of the Smart Manufacturing Technologies? Which are the contingent variables which influence most the shift towards the empowerment of operators? Will the evolution of the technology and the implementation of the Smart Manufacturing paradigm allow to overcome the trade off among the different dimensions of employee well-being? These and other questions will be explored in this research stream.</p>
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International collaborations	Mas <i>ESADE – Spain, KTH – Sweden, Aalborg – Denmark, ETH – Switzerland, Corvinus University of Budapest - Hungary</i>