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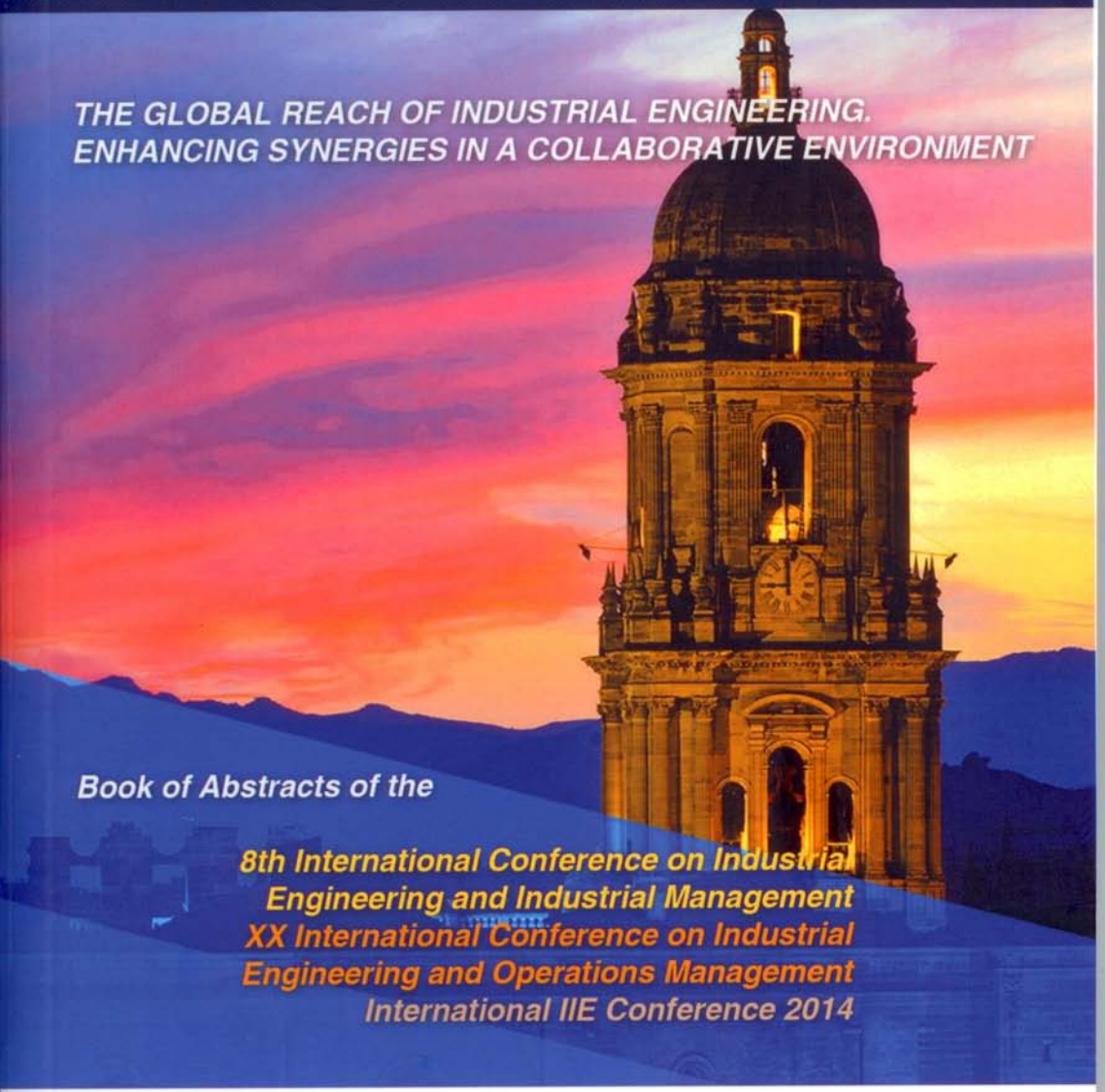
THE GLOBAL REACH OF INDUSTRIAL ENGINEERING. ENHANCING SYNERGIES IN A COLLABORATIVE ENVIRONMENT



Book of Abstracts of the

8th International Conference on Industrial Engineering and Industrial Management
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119 Ergonomic Risk Minimisation in Assembly Line Balancing

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Abstract: In this work it is presented a variant for the assembly line balancing that considers simultaneously production conditions and labour conditions. Specifically, a new mathematical model is formulated to solve the assembly line balancing problem. The objective of this model is minimising the maximum ergonomic risk, given a specific cycle time and a number of workstations. This affords the evaluation of the ergonomic risk impact on the number of workstations of the line through an application linked to the Nissan plant of engines, located in Barcelona.

Keywords: Manufacturing systems; Assembly line balancing; Ergonomic risk; Mathematical model.