



13<sup>th</sup> International Conference on Industrial  
Engineering and Industrial Management

XXIII Congreso de Ingeniería de Organización



**Organizational  
Engineering  
in Industry 4.0**

**BOOK OF ABSTRACTS**

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## Availability of technological resources and training needs: the case of supercomputing training

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**Abstract-** Technological infrastructures are the base of the workflow in a lot of fields, helping in the improvement of performance and the results of every type of organizations. Supercomputers are one of the most relevant and powerful technological infrastructures currently. For this reason, the analysis of the availability and the training needs related to this advanced computational services are very important in order to determine the grade of support for the development of Research and Development (R & D) activities in the organizations. The review of the literature shows that one of the main limitations in the training of qualified personnel is the lack of availability of technological infrastructures. The present work analyses the influence of the perception of availability of technological resources in the perception of adequate training of students, related to Supercomputing.

**Keywords:** Learning; Supercomputer; PhD; Researcher; Course; Technology

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## **1 Objectives**

The objectives set out in this work can be summarized as follows:

- O1.- Analyze the existing limitations in relation to the availability of technological resources.
- O2.- Analyze the type of students and their opinion in relation to the availability of infrastructure and training in technology.
- O3.- Elaborate a logistic regression model with the previous variables.

## **2 Methods**

The methodology used in the work has been: i) review of the literature in databases specialized in the subject; ii) survey on training and technology, in which 97 students enrolled in courses related to supercomputing participated.

## **3 Results and conclusion**

In relation to the proposed objectives, the following conclusions have been reached:

- O1.- It is appreciated that, through the review of the literature, both the problem of availability of technological resources and the solution to it are aspects of interest and relevance in the field of studies related to training.
- O2.- It is observed, firstly, a high qualification of the students who participate in these analyzed courses and their membership in organizations, mainly Universities and Centers related to research. In relation to the questions that analyze the variables under study, it is observed that a large number of respondents estimate that they do have adequate technological resources. In addition, it is appreciated graphically how there is an important relationship between these and those who consider that they have adequate training in technology.
- O3.- The results of the empirical study allow us to conclude that the parameter that best explains the affirmative result of the variable on perception of the availability of training (DISFOR), is the affirmative response on the availability of technology (DISTEC), so that, it can be concluded that students who consider that they have available an adequate technology tool, also consider that they have good training associated with it.

Through the data obtained in the study, we have reached conclusions that may be of interest for the preparation of training actions in the future for courses related to technology.