

Pedagogy in engineering: A proposal to improve the training of chilean engineers

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This paper presents the results of a survey focused on the interests and needs of academic training related to the different pedagogical aspects that influence the training of engineers in the engineering faculties of chilean universities, seeking to improve the quality of teaching and the academic training. The research was organized in the frame of the "Pedagogy in Engineering in Chilean Universities" project, led by the Technische Universität Dresden (TUD) of Germany, funded through of DAAD and consisting of a group of academics from engineering faculties of three Chilean universities: Universidad Autónoma de Chile (UA), Universidad de Magallanes (UMAG) and Universidad de Talca (UTALCA). The objective of the project is to develop tools to determine the training needs of trainers of engineers in the pedagogical field. Methodologically, an instrument was developed for the assessment of needs, based on specific theoretical concepts of the engineering

training as well as the experience in research projects of the TUD in this area. In the gathering of information, 114 Chilean academics participated, distributed among the different specialties that the engineering faculties of the three participating universities impart, among which stand out: chemical engineering, mechanical engineering, computer engineering, electrical engineering, construction engineering, industrial engineering and commercial engineering. Among the main results obtained, it is worth noting that more than 90% of the respondents stated their interest in improving the pedagogical area focused on the training of engineers, but they present time constraints to participate in a training and to attend this type of activities. At the same time it is possible to point out that the main areas of interest to receive training are: evaluation, ICTs and methodologies of teaching learning. Based on the description given by the results of the surveys, we are currently working on the design, implementation and evaluation of an on-line training course aimed at teachers and academics at engineering faculties of Chilean universities. © 2018, University of Minho. All rights reserved.

Pedagogy for professionals pedagogical skills

Pedagogy in engineering higher education

Teacher training