

Educational Experiences in Engineering in the COVID Era and Their Comparative Analysis, Spain, March to June 2020

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Abstract : In March 2020, in Spain, a sanitary and unexpected crisis caused by COVID-19 was declared. All of a sudden, all degrees, classes and evaluation tests and projects had to be transformed into online activities. However, the chaotic situation generated by a complex operation like that, executed without any well-established procedure, led to very different experiences and, finally, results. In this paper, we are describing three experiences in two different Universities in Madrid. On the one hand, the Technical University of Madrid, a public university with little experience in online education. On the other hand, Alfonso X el Sabio University, a private university with more than five years of experience in online teaching. All analyzed subjects were related to computer engineering. Professors and students answered a survey and personal interviews were also carried out. Besides, the professors' workload and the students' academic results were also compared. From the comparative analysis of all these experiences, we are extracting the most successful strategies, methodologies, and activities. The recommendations in this paper will be useful for courses during the next months when the sanitary situation is still affecting an educational organization. While, at the same time, they will be considered as input for the upcoming digitalization process of higher education.

Keywords : educational experience, online education, higher education digitalization, COVID, Spain

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