The Importance of Student Feedback in Development of Virtual Engineering Laboratories

Authors : A. A. Altalbe, N. W Bergmann

Abstract : There has been significant recent interest in on-line learning, as well as considerable work on developing technologies for virtual laboratories for engineering students. After reviewing the state-of-the-art of virtual laboratories, this paper steps back from the technology issues to look in more detail at the pedagogical issues surrounding virtual laboratories, and examines the role of gathering student feedback in the development of such laboratories. The main contribution of the paper is a set of student surveys before and after a prototype deployment of a simulation laboratory tool, and the resulting analysis which leads to some tentative guidelines for the design of virtual engineering laboratories.

1

Keywords : engineering education, elearning, electrical engineering, virtual laboratories

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020