Teaching Electronics Subject in Different Post-Secondary Courses

Frederico L. Jacob
Physics Department
Instituto Superior de Engenharia do
Porto (ISEP)
Porto, Portugal
fljb@isep.ipp.pt

António S. D. P. Alberto
Physics Department
Instituto Superior de Engenharia do
Porto (ISEP)
Porto, Portugal
apa@isep.ipp.pt

Abstract— Keeping in mind that the courses must be very practical, for example, including numerous laboratory sessions to reinforce the theoretical contents, this work describes the experience of updating a basic analog electronics course as a consequence of the lack of attractiveness and interest of students shown in previous academic years. The main objectives of this subject are the introduction of analog electronics, the acquisition of the ability to evaluate electronic circuits, and the obtainment of the theoretical foundations necessary to understand the functioning of the electronics devices. So, this paper has as principal aim propose a methodological change and explore two different structural forms for the teaching of Electronics subject. It also presents some of the contents followed in the tutorship of this topic, analyses the gains obtained from changing, and evaluate the satisfaction and motivation of the students.

Keywords—*Electronics, Laboratory activities, Methodology, Post-secondary courses, Practical skills, Teaching.*