Ethics at Various Engineering Programs

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The profession of engineering and society have a profound interaction. Engineers serve the societies they live in by offering them practical solutions to their technical problems. They have to do so in the most efficient way and in an ethical manner. The importance of ethics in engineering has been well established and awareness about this importance has been on the rise in recent years.

Traditionally, with a few exceptions, institutes of higher education did not include discrete educational components on ethics in their engineering curricula. Engineering students are left to learn about ethics on their own especially after graduation through their professional careers. This has changed recently as more and more engineering programs are starting to address engineering ethics in more concrete ways.

The importance of ethics extends beyond our engineering profession. The new US congress made ethics reforms a top priority following several notorious cases of ethics violation by its members. It was one of the bills passed in its famous first 100 hours. In our profession nowadays, ABET, a leading authority, puts a lot of emphasize on ethics in the education process.

An initial investigation conducted by the author shows a wide variance in which engineering programs at various institutes of higher education in the US treat ethics in their curricula. This ranges from no or minute treatment of ethics on one end to a very serious emphasize on the other end. Many engineering programs were in between these two extremes.

This presentation highlights the ways in which various engineering programs in the US deal with ethics in their curricula. Several institutes of higher education were investigated. Relatively speaking and due to the huge number of engineering programs, the sample is not statistically large. However, it was big enough to show distinct ways among universities and colleges when it comes to teaching ethics. The paper will present several categories in this regard. It will analyze these categories from different points of view. It will compare the effectiveness of each of these categories, and recommendations will be offered.