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Assessing a Potential Conceive Design Implement Operate Curricular Change in an Engineering Degree

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Abstract : The requirements of the engineering education are nowadays very broad and demand a set of skills which demands not only technical knowledge but also the ability to lead and innovate and personal and interpersonal skills. A framework for the assessment of a potential curricular change is necessary to guide the analysis of the program with respect to the stakeholders and the legislation of the country, in order to develop appropriate learning outcomes. A Conceive-Design-Implement-Operate (CDIO) approach was chosen for an evaluation conducted in a mechanical engineering degree in Brazil. The work consisted in the application of a survey with students and professors and a literature review of the legislation and studies that raised the required competences and skills for the modern engineer. The results show a great potential for a CDIO set of skills in engineering degrees in Brazil and reveal the frequent demands of stakeholders before a curricular change.

Keywords : curriculum change, conceive design implement operate, accreditation, personal and interpersonal skills
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