

Engineering Education and Industry Synergy in Zimbabwe: A Divide and Redirection

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Abstract

Engineering education in Zimbabwe is crucial for the country's Vision 2030 Economic Agenda, but the education system is inadequate due to the mismatch between the provided talents and the ever-changing engineering world. This shortage of skilled engineers hinders economic growth and efforts to combat poverty, infrastructural deficit, and other sustainable development challenges. Traditional teaching methods and outdated materials negatively impact the outcomes of engineering graduates entering the industry. The Ministry of Higher and Tertiary Education transitioned from the Education 3.0 model in 2017 to Education 5.0, which incorporates innovation and industrialization. The increasing demand for qualified engineers to drive economic growth in Zimbabwe is discussed in this paper, which also offers recommendations for improving engineering education in the country. The study uses short questionnaires and semi-structured interviews with engineering and academic stakeholders with a response rate of 95.9% to investigate the current gap between engineering education and industry. The aim is to inspire academic institutions, education designers, and curriculum developers to create programs that provide sustainable education, industry, and engineering development in Zimbabwe.

Keywords: curriculum development, engineering education, industrialization, skills training, sustainable education development, Zimbabwe