

Development of Global Standard Agricultural and Food Engineering Curriculum Using ABET Criterion

Quamrul Mazumder, Burhan Uddin and Vasudha Kilaru

Department of Mechanical Engineering

University of Michigan Flint

Flint, Michigan 48502

Email: qmazumde@umflint.edu

Abstract

Development of knowledge and competencies is required to compete in the present global engineering market. The curriculum design which is currently in practice at Bangladesh Agricultural University is obsolete. Benchmarking with other universities made them to identify the areas needed to be transformed to improve program curriculum of engineering. The development of new curriculum aimed to seek the accreditation of ABET by improving the program design.

Introduction

The transformation of undergraduate curriculum integrates advanced classroom training with practical research to develop professional and personnel skills after their graduation. In order to achieve of these goals and improve the curriculum, pedagogical research in assessment, student learning is required. Traditional education involves testing and written work for college students to convey what they have learned, but employers within the engineering business require engineering graduates to seek the skills required to solve the real world problems in the field. Over the past twenty years, several establishments and educators have created advancements in distinguishing what specifically ought to be tutored in engineering curriculum so as to develop quality staff, governments of various countries are upgrading technical education systems to attain quality education.

Program Objective

- Graduates use engineering principles and standards to develop innovative solutions when they model, analyze, and design components, equipment and systems to improve irrigation, water management, agricultural and food processing industries.
- Graduates employed in agro-based and food industries, research and development to improve agricultural and food production processes.
- Graduates successfully demonstrate ethical, professional, leadership, teamwork, communication, and technical competencies to serve society.
- Graduates engage in lifelong learning as demonstrated by professional development, publication, continuing education, graduate degrees and other similar activities.

Bibliography

1. Dey, S.K.; Sobhan, M.A., "Guidelines for preparing standard software engineering curriculum: Bangladesh and global perspective," in Computer and information technology, 2007. iccit 2007. 10th international conference on , vol., no., pp.1-6, 27-29 Dec. 2007.
2. Jones, R. C. (2013, June), Invited Paper - American Influence on Engineering Education in the Middle East Paper presented at 2013 ASEE International Forum, Atlanta, Georgia. <https://peer.asee.org/17240>

