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| **Title:** | Assessing and Evaluating the Course Outcomes of Control Systems Course Mapping Complex Engineering Problem Solving Issues and Associated Knowledge Profiles with the Program Outcomes | | |
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| **Abstract:** |  |
| Abstract— In the current context, the engineering program educators need to think about how to develop the concepts and complex engineering problem-solving skills through various complex engineering activities by the undergraduate engineering students in various engineering courses. But most of them are facing challenges to assess and evaluate these skills of their students. In this study, detailed assessment and evaluation methods for the undergraduate Electrical and Electronic Engineering (EEE) program are stated using the Outcome-Based Education (OBE) approach. For this purpose, a final year course titled control systems has been selected. The assessment and evaluation approach, course contents, course objectives, course outcomes (COs), and their mapping to the program outcomes (POs) with complex engineering problems and activities via the knowledge profiles, performance indicators, rubrics of assessment, CO and PO attainment data, and other statistics, are reported for a student-cohort of control systems course registered by the students of BSc in EEE program in Spring 2021 Semester at the EEE Department of Southeast University (SEU). It is found that the target benchmark was achieved by the students of that course. Several recommendations for the continuous quality improvement (CQI) process are also provided. | |