## ABSTRACT

# TEXT CLASSIFICATION TEST EXAMINATION USING DECISION TREE APPROACH BASED ON TAXONOMY BLOOM COGNITIVE LEVEL (CASE STUDY: TELKOM UNIVERSITY)

#### By

# ALIF NOORACHMAD MUTTAQIN

## NIM: 1202154126

Quality assessment of a university is very dependent on the performance of its students. Student assessment can be obtained from many things, one of them is the Cumulative Achievement Index collected from the Performance Index of the courses taken each semester. Collection of grades per subject can be obtained from exams such as quizzes, midterm, and final semester exams and other assessment components. But the design of inappropriate questions usually fails to check the performance of students from a course because it does not match the given weight. In the case of Telkom University, there is no centralized process to control whether the conformity check is appropriate or not with the weight given. Bloom's Taxonomy is a reference as a guide for creating course exam text questions. In this study, researchers classified test questions according to the level of learning of Taxonomy Bloom Cognitive Domains based on High Order and Low Order using the Decision Tree method. This study uses data from midterm and midterm exam questions from Database Systems, Data Structures and Algorithms, Advanced Data Structures and Programming, Database Management, Web Application Development, Object Oriented Programming, Android, and Algorithms and Programming in Programs Strata 1 Study of Information Systems Faculty of Industrial Engineering Telkom University from the 2012/2013 school year to 2018/2019. Classification using the Decision Tree method is assisted by the feature of TF-IDF for word weighting which results in an 80% accuracy score prediction.

Keywords: Taxonomy Bloom, exam questions, Decision Tree, machine learning, classification