

## ABSTRACT

### APPLICATION OF THE BUBBLE SORT ALGORITHM FOR STUDENT ACHIEVEMENTS SELECTION FACULTY OF COMPUTER SCIENCE INSTITUTE OF INFORMATICS AND DARMAJAYA BUSINESS

By:

**Indah Pratiwi**

This research aims to develop a system for selecting outstanding students' website-based at the Faculty of Computer Science, Darmajaya Institute of Informatics and Business using a combination of the Bubble Sort Algorithm and the Profile Matching Method. This research reflected the importance of selecting outstanding students in maintaining the quality of higher education and improving student academic and non-academic achievements. Through this system, it was hoped that the process of selecting outstanding students can be more efficient and accurate. This research methodology included the development of a website-based system that used the Bubble Sort Algorithm for sorting data and the Profile Matching Method for student personal assessment. Problem limitations included the research focus on the Faculty of Science IIB Darmajaya Computer used input variables such as Grade Point Average (GPA), Academic and Non-Academic Achievements, Scientific Writing, and English (PBB), and the output variable was the selection of outstanding students. The research results showed that the combination of the Bubble Sort Algorithm and the Profile Matching Method was successfully implemented in the selection system for outstanding students. This system produced decision rules and helped simplify and speed up the process of selecting outstanding students. It is hoped that this system can improve the quality of selection and provide benefits for Faculty of Computer Science IIB Darmajaya and other higher education institutions in selecting outstanding students.

**Keywords:** Bubble Sort Algorithm, Profile Matching Method, Outstanding Students.

