## ABSTRACT

## ALGORITHM IMPLEMENTATION K-NEAREST NEIGHBOUR CLASSIFICATION TO DETERMINE THE NUMBER BOOK (Case Study: Catholic University Library Musi-Caritas)

Classification of library books is important to allow visitors in search of a book. The classification system in the library of the Catholic University of Charity Musi using guide books dewey decimal classification (DDC). The problem in this research is the difficulty in determining the classification number of new books. By utilizing the methods of Information Retrieval (IR) or retrieval of information, so in this study will build an application program for classification of library books. The method will be used to classify the book library is a method of k-nearest neighbor (k-NN). The application program classification of library books is built with training data from library books Musi-Caritas Catholic University and the test data is a new book. Applications are made capable of classifying new library book.

Keywords : Dewey Decimal Classification (DDC), Information Retrieval (IR), K- nearest neighbor (K-NN)