

**KLASTERISASI DAERAH POTENSI IKAN DI PROVINSI JAWA TIMUR
MENGUNAKAN METODE *AGGLOMERATIVE HIERARCHY*
*CLUSTERING***

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ABSTRACT

Potential fish areas are areas that have high fish resource characteristics and potential, but manually determining these areas can be a complicated and time-consuming task. Therefore, a clustering method is applied to automatically group potential fish areas based on relevant features. The data used in this study is fish potential data from various regions in East Java Province, which includes the type of fish catch. The Agglomerative Hierarchy Clustering method with single linkage and double linkage types was chosen because of its ability to group data hierarchically, which can produce a cluster structure that can be easily interpreted. The research steps include collecting fish potential data, pre-processing data, analyzing needs, implementing the Agglomerative Hierarchy Clustering method, and evaluating clustering results. This research aims to apply the Agglomerative Hierarchy Clustering method, especially the single linkage and double linkage methods in clustering potential fish areas in East Java Province. Evaluation is done using the Davies Bouldin Index (DBI) method. Based on the test results, it is found that the lowest DBI value in both methods is the same value at $K=252$ which is 0.0041. While the highest DBI value is in double linkage $K = 3$ with a value of 1.059. Thus, the best method is the single linkage method because it has the highest DBI value which is lower than the double linkage method.

Keywords: *Agglomerative Hierarchy Clustering (AHC), Clustering, Davies Bouldin Index (DBI).*