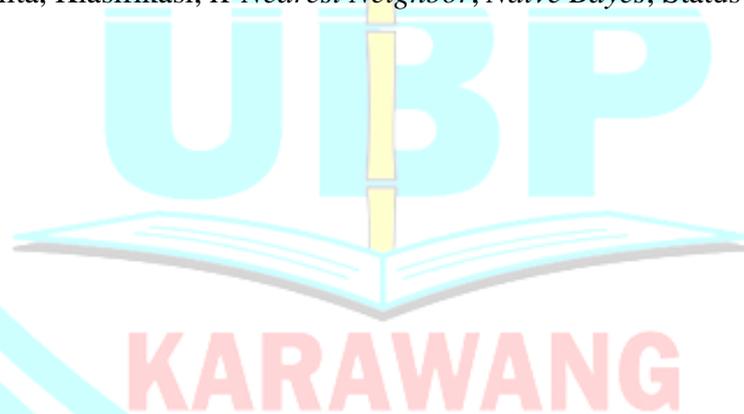


## ABSTRAK

Status Gizi anak balita diukur berdasarkan umur, berat badan, dan tinggi badan yang kemudian dikonversikan kedalam nilai terstandar (*Z-Score*). Pertumbuhan seorang anak sangat dipengaruhi oleh konsumsi gizi yang baik selama masa pertumbuhan. Penelitian ini menerapkan algoritma *Naïve Bayes* dan *K-Nearest Neighbor* dalam klasifikasi status gizi anak balita di Puskesmas Cimahi Selatan berdasarkan data jenis kelamin, usia, berat badan, tinggi badan, dan *Z-Score* BB/TB. Data yang digunakan berjumlah 2052 data yang dikumpulkan dalam rentang waktu Bulan Agustus hingga November 2024. Proses penelitian meliputi pengumpulan data, *pre-processing* data meliputi proses penghapusan data duplikat, transformasi data mencakup *label encoding*, pemilihan fitur, *balancing data*, dan normalisasi data menggunakan *Min-Max Scaling*, kemudian pelatihan model, dan evaluasi menggunakan *confusion matrix*. Hasil evaluasi menunjukkan algoritma *KNN* memberikan nilai akurasi tinggi sebesar 99.70%, sedangkan *Naïve Bayes* sebesar 96.18%. Berdasarkan hasil tersebut *KNN* menunjukkan kinerja yang lebih baik dalam mengklasifikasikan status gizi anak balita di Puskesmas Cimahi Selatan.

**Kata Kunci:** Balita, Klasifikasi, *K-Nearest Neighbor*, *Naïve Bayes*, Status Gizi.



## ABSTRACT

*The nutritional status of toddlers is measured based on age, weight, and height, which are then converted into standardized values (Z-Scores). A child's growth is greatly influenced by good nutrition during the growth period. This study applies the Naïve Bayes and K-Nearest Neighbor (KNN) algorithms in classifying the nutritional status of infants at the Cimahi Selatan Health Center based on data including gender, age, weight, height, and Z-Score for weight-to-height ratio. The data used consists of 2,052 records collected between August and November 2024. The research process included data collection, data pre-processing (including duplicate data removal), data transformation (including label encoding, feature selection, data balancing, and data normalization using Min-Max Scaling), model training, and evaluation using a confusion matrix. The evaluation results showed that the KNN algorithm achieved a high accuracy rate of 99.70%, while the Naïve Bayes algorithm achieved 96.18%. Based on these results, KNN demonstrated better performance in classifying the nutritional status of infants at the Cimahi Selatan Health Center.*

**Keyword:** *Classification, K-Nearest Neighbor, Naïve Bayes, Nutritional Status, Toddlers.*

