

# Sentimen Analisis terhadap Ulasan Produk Smartphones Menggunakan Pembobotan Term Frequency Inverse Document Frequency (TFIDF) dan menggunakan Metode Klasifikasi K-Nearest Neighbors (KNN)

Ahmad Hermawan<sup>1</sup>, Yuliant Sibaroni<sup>2</sup>

<sup>1,2</sup>Fakultas Informatika, Universitas Telkom, Bandung

<sup>1</sup>ahmadhermawan@students.telkomuniversity.ac.id, <sup>2</sup>yuliant@telkomuniversity.ac.id

---

## Abstract

Many reviews about smart phone products are shared online shopping sites. Therefore, it is necessary to group positive reviews and negative reviews to provide a better review orientation. The data used for this study is irregular data that is stable from the Amazon.com shopping site. Data will be filtered to remove noisy and clustered data by comparing weighting using Term Frequency Inverse Document Frequency (TFIDF) to evaluate the sentiments of the review using supervised learning. The focus of this research is the pre-erosion of data, extraction features and the KNN classification method to find the best K in the case of this study. Product reviews are classified using the K-Nearest Neighbors (KNN) machine learning classification model. Using this method obtained an accuracy of 81.07% with five *preprocessing* stages.

**Keywords:** *Term Frequency Inverse Document Frequency (TFIDF)*, supervised learning, Smart Phone, dan K-Nearest Neighbors (KNN)