# ANALISIS SENTIMEN PUBLIK TERHADAP KONTROVERSI RUU TNI MENGGUNAKAN METODE K-NEAREST NEIGHBORS


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## ABSTRAK


Kontroversi Rancangan Undang-Undang Tentara Nasional Indonesia (RUU TNI) memunculkan dinamika opini publik yang signifikan di berbagai platform media sosial seperti X, TikTok, dan YouTube. Karakteristik komentar yang tidak terstruktur, penggunaan bahasa tidak baku, serta keberagaman istilah politik menjadi tantangan dalam proses analisis sentimen secara sistematis. Penelitian ini bertujuan untuk mengklasifikasikan sentimen publik terhadap isu RUU TNI menggunakan metode K-Nearest Neighbors (KNN) serta mengevaluasi kinerja model secara kuantitatif. Data penelitian terdiri atas 12.000 komentar yang dikumpulkan melalui teknik scraping. Tahapan pengolahan data meliputi preprocessing berupa cleaning, case folding, normalisasi, tokenisasi, stopword removal, stemming, serta integrasi kamus politik untuk meningkatkan representasi konteks istilah politik. Selanjutnya, data ditransformasikan menggunakan pembobotan TF-IDF sebelum dilakukan proses klasifikasi dan evaluasi menggunakan confusion matrix dan classification report. Hasil pengujian menunjukkan bahwa model KNN memperoleh akurasi sebesar 90%, precision sebesar 83,33%, recall sebesar 100%, dan F1-Score sebesar 90,9%. Nilai tersebut menunjukkan bahwa model memiliki tingkat ketepatan dan keseimbangan yang baik dalam mengklasifikasikan sentimen. Dengan demikian, metode KNN yang didukung preprocessing berbasis kamus politik terbukti efektif dan relevan untuk analisis sentimen pada isu sosial dan politik yang kompleks.



**Kata kunci:** Analisis Sentimen, RUU TNI, *K-Nearest Neighbors*, TF-IDF, Kamus Politik

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## *ABSTRACT*


*The controversy surrounding the Indonesian National Armed Forces Bill (RUU TNI) has generated significant public discourse across social media platforms such as X, TikTok, and YouTube. The unstructured nature of user comments, the frequent use of informal language, and the diversity of political terminology present substantial challenges for conducting systematic sentiment analysis. This study aims to classify public sentiment toward the RUU TNI issue using the K-Nearest Neighbors (KNN) method and to evaluate the model's performance quantitatively. The dataset consists of 12,000 comments collected through a web scraping technique. The data were processed through several preprocessing stages, including cleaning, case folding, normalization, tokenization, stopword removal, stemming, and the integration of a political lexicon to enhance contextual representation of political terms. Subsequently, the text data were transformed using Term Frequency–Inverse Document Frequency (TF-IDF) weighting before being classified. Model evaluation was conducted using a confusion matrix and classification report. The results indicate that the KNN model achieved an accuracy of 90%, a precision of 83.33%, a recall of 100%, and an F1-score of 90.9%. These findings demonstrate that the model provides a balanced and reliable performance in classifying sentiment. Therefore, the KNN method, supported by political lexicon-based preprocessing, is proven to be effective and relevant for sentiment analysis in complex socio-political issues.*



***Keywords:*** *K-Nearest Neighbors, Political Dictionary, RUU TNI, Sentiment Analysis, TF-IDF*