

ANALISIS SERANGAN *PHISHING* PADA *EMAIL* DAN UPAYA MITIGASI MENGGUNAKAN METODE *SUPERVISED MACHINE LEARNING*

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ABSTRACT

The development of information technology has made email the primary medium of communication, but it has also increased the risk of cyber attacks, particularly phishing. Phishing attacks via email remain a serious threat because they can trick users into providing sensitive information such as account credentials and personal data, which can potentially lead to financial losses and data leaks. The main problem in this study is the low effectiveness of conventional phishing detection methods, which are static and less adaptive to developments in attack patterns. This study aims to analyze phishing attacks on email and apply supervised machine learning methods as a mitigation effort by classifying emails into phishing and non-phishing categories. The research methods include collecting labeled email datasets, text preprocessing, feature extraction, supervised machine learning model training, and performance evaluation using accuracy, precision, recall, and F1-score metrics. The results show that the supervised machine learning method is capable of effectively detecting and classifying phishing emails with a high degree of accuracy. This approach is considered adaptive and reliable as a basis for developing email security systems and contributes to improving phishing attack mitigation efforts.

Keyword: phishing, email, supervised machine learning