

**ANALISIS DINAMIS DAN *DECISION TREE CLASSIFIER* UNTUK *MALICIOUS OFFICE* DAN *PDF***

**Skripsi**

*diajukan untuk memenuhi bagian dari syarat memperoleh gelar Sarjana Komputer  
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**ANALISIS DINAMIS *MALWARE* DALAM SERANGAN *PHISHING* BERBENTUK  
DOKUMEN DENGAN *DECISION TREE***

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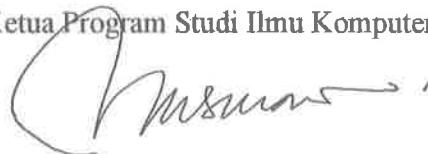


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# ANALISIS DINAMIS DAN *DECISION TREE CLASSIFIER* UNTUK *MALICIOUS OFFICE* DAN *PDF*

## ABSTRAK

Penelitian ini menyoroti analisis dinamis terhadap *malware* yang digunakan dalam serangan *phishing* berbentuk dokumen, dengan memanfaatkan *decision tree classifier* untuk meningkatkan langkah-langkah keamanan siber. Sampel *malware* dikumpulkan dengan cermat dari honeypot suatu perusahaan, mewakili beragam potensi ancaman. Dari sampel yang dikumpulkan, beberapa akan ditetapkan untuk melatih *decision tree* dan beberapa sampel lainnya akan digunakan untuk mengevaluasi kinerjanya. Analisis dinamis dilakukan dalam lingkungan mesin virtual *Linux* untuk memastikan tempat pengujian yang terkontrol dan aman. *Decision tree* dibangun menggunakan *Python*, dengan mengintegrasikan pustaka *scikit-learn* yang kuat. Dengan menggunakan metode *classifier*, *decision tree* mampu membedakan secara efektif antara sampel *benign* dan sampel berbahaya, menunjukkan ketangguhannya dalam mengidentifikasi ancaman. Selain itu, *decision tree* mampu mengkategorikan *malware* yang teridentifikasi menjadi empat klasifikasi yang berbeda: *bot*, *trojan*, *ransomware*, dan *spyware*. Pendekatan komprehensif ini tidak hanya menyoroti efektivitas *decision tree classifier* dalam deteksi *malware* tetapi juga menegaskan potensinya dalam menyempurnakan proses klasifikasi *malware*. Temuan ini menunjukkan bahwa penerapan teknik semacam itu dapat secara signifikan memperkuat akurasi dan keandalan pertahanan keamanan siber terhadap serangan *phishing* yang canggih.

Kata kunci: Analisis Dinamis, *Decision Tree*, Dokumen, Keamanan Siber, *Malware*, *Phishing*.

## ***DYNAMIC ANALYSIS AND DECISION TREE CLASSIFIER FOR MALICIOUS OFFICE DOCUMENTS AND PDFS***

### ***ABSTRACT***

*This research focuses on the dynamic analysis of malware used in document-based phishing attacks, leveraging a decision tree classifier to enhance cybersecurity measures. The malware samples were meticulously gathered from a company's honeypot, representing a wide array of potential threats. Among these, several samples were designated for training the decision tree, while several more were utilized to evaluate its performance. The dynamic analysis was executed within a Linux virtual machine environment to ensure a controlled and secure testing ground. The decision tree was constructed using Python, incorporating the powerful scikit-learn library. By employing the classifier method, the decision tree effectively distinguished between benign and malicious samples, showcasing its robustness in identifying threats. Additionally, the decision tree was capable of further categorizing the identified malware into four distinct classifications: bots, trojans, ransomware, and spyware. This comprehensive approach not only highlights the efficacy of decision tree classifiers in malware detection but also underscores their potential in refining malware classification processes. The findings suggest that employing such techniques can significantly bolster the accuracy and reliability of cybersecurity defenses against sophisticated phishing attacks.*

*Keywords: Cybersecurity, Decision Tree, Document, Dynamic Analysis, Malware, Phishing*

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