# *DASHBOARD-BASED WEBSITE APPLICATION LOG SECURITY ANALYSIS USING THE SECURITY INFORMATION AND EVENT MANAGEMENT (*SIEM*) METHOD*


| | |
|---|---|
| *Name* | : Nurulfadhlia |
| *Student ID* | : 6404221119 |
| *Supervisors* | : Kasmawi, S.Kom., M.Kom |
| | Pretti Ristra, S.Pd., M.Ed |


## *ABSTRACT*


*The increasing use of websites as platforms for information and service delivery has led to greater security risks at the web application level, while the utilization of application logs in many systems remains suboptimal for centralized monitoring and analysis. This condition makes it difficult for administrators to detect suspicious activities and perform effective security evaluations. Therefore, this study aims to design and implement a dashboard-based web application log security analysis system using the Security Information and Event Management (*SIEM*) method. The system is developed using the Laravel framework and a MySQL database, focusing on logging, normalization, correlation, and visualization of web application activity logs, including login, logout, failed login attempts, route access, and administrative data management activities. System testing is conducted through simulations of security threat scenarios such as brute force login, after-hours access, HTTP error bursts, and sensitive route access. The results indicate that the system can detect suspicious activities and present security information in real time through an interactive dashboard. The implementation of the* SIEM *method enhances website security monitoring, supports security auditing through user activity traceability recorded in application logs, and assists in early detection of potential threats.*



***Keywords:*** *Application log, Website Security, Security Dashboard,* SIEM.