

## **ABSTRACT**

*Electronic Medical Record (EMR) data leaks, such as the hacking of 6 million patient records that included sensitive information, have threatened privacy, triggered identity abuse, and undermined public trust in healthcare. To solve these problems, this study seeks to implement an identity-based access management system to improve data security as well as service efficiency. Performance Testing using JMeter with load Testing, Stress Testing, and stability Testing scenarios shows that the system is able to handle low to high loads stably without experiencing significant degradation at high loads such as 200 Users. Meanwhile, the findings of usability Testing with the System Usability Scale (SUS) on 40 respondents resulted in a score of 85.64 in the “Excellent” category, proving the system is easy to use, efficient, and satisfying to Users. The findings conclude that the proposed solution not only enhances RME security through strict access control, but also guarantees optimal User experience, making it feasible to implement in a real healthcare environment.*

**Keywords:** *Electronic Medical Records (EMR), Identity-based Access Management, Data Security, Load Testing, System Usability Scale (SUS)*