

APPLICATION OF NEAR FIELD COMMUNICATION TECHNOLOGY IN WAREHOUSE MANAGEMENT SYSTEM FOR EFFICIENT MANAGEMENT OF PRODUCTION RAW MATERIALS

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ABSTRACT

The management of production raw materials in the warehouse of PT. Sinar Klaten Makmur faces challenges due to the use of paper-based stock card data collection for recording incoming and outgoing stock. The accumulation of documents on a single shelf leads to prolonged and inefficient monitoring processes. To address this issue, this study implements Near Field Communication (NFC) technology in the warehouse management information system to enhance the efficiency of raw material management. The research employs a methodology that includes analysis, design, implementation, and testing phases. The developed system is built using PHP programming language and is web-based. Testing results indicate a success rate of 100% based on the black-box testing method, with all testing scenarios meeting expectations. The application of NFC technology can significantly enhance the speed and accuracy of data collection and checking of fabric raw materials, while reducing reliance on paper documents. The implementation of NFC in the warehouse management information system at PT. Sinar Klaten Makmur can improve the efficiency and accuracy of production raw material management, resulting in faster and more precise monitoring processes. This paper discusses the format and guidelines for authors of scientific papers.

Keywords: Warehouse Management Information System Automation, NFC, Raw Material Management, TOGAF