

ABSTRACT

The Faculty of Industrial Engineering has several assets used to support academic and operational activities. Previously, the process of reporting damage and asset maintenance was carried out through barcode scanning connected to a form and manual reporting via WhatsApp. This process was not satisfactory, experiencing obstacles such as slow handling, lost data, difficulty tracking the condition of asset maintenance and repair. FRI has problems in managing asset repairs, so the research aims to design an efficient and economical asset maintenance system so that the process is carried out according to user needs. This system is equipped with various features, such as QR code scanning to facilitate damage reports because it is directly connected to asset data stored in the system, report verification to ensure that the reported information is in accordance with the reported conditions, verification history is used to record the report verification process that has been carried out, report validation is carried out after the verification process to determine whether the report can be followed up for repairs or still needs revisions, validation history to record the report validation process. The regular maintenance feature helps with routine maintenance schedules so that assets are maintained, repair status makes it easier to monitor repair progress in real-time, asset maintenance reports, asset repair reports facilitate asset documentation and evaluation. By using the scrum method as a system development stage, this process goes through several stages starting from identifying user needs, designing displays and features, to the validation process using User Acceptance Test (UAT). The results of the study show that the designed system received an approval rate of 82% from users, which means that most users feel that this system can help reduce inefficiencies and facilitate the process of reporting, maintenance, and repair of assets. The results of this final project are expected to provide benefits to the Laboratory, Logistics by designing a system that facilitates real-time maintenance and repair at the Faculty of Industrial Engineering.

Keywords — Asset, Asset Maintenance, Asset Management, Scrum, Management Information System