

## **ABSTRACT**

### ***DESIGN AND CONSTRUCTION OF AND ANDROID BASED ACTIVITIES ATTENDANCE APPLICATION USING EXTREME PROGRAMMING (Case Study of Software Engineering Student Association at ITTP)***

By

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*The Software Engineering Student Association (HMSE) is a forum that brings together all potential students of the Undergraduate Software Engineering Study Program at the Telkom Purwokerto Institute of Technology which is managed by YPT under the auspices of PT. Telkom Indonesia. When carrying out activities, HMSE is required to have attendance and is required to report it to the secretary. HMSE carries out attendance activities still using media such as paper and Google Form, making it difficult for HMSE administrators to process attendance and recapitulation of attendance. This research was conducted with the aim of designing and building an Android-based activity attendance application using the Kotlin programming language and Firebase as a database. Through the application of the Extreme Programming method, with planning, design, coding and testing stages, it is hoped that it can make it easier for HMSE administrators in the attendance process. The research results show that the features in the activity attendance application run well, tested through 43 black-box testing scenarios. Testing shows that the application was designed with a User Acceptance Testing (UAT) acceptance index involving 29 potential users with a score of 65.24%, which indicates that this application was accepted. This success is due to the activity attendance application which makes it easier for administrators to carry out activity attendance and recapitulate activity attendance.*

**Keywords:** Attendance Application, Firebase, Kotlin, Extreme Programming, UAT