## Application of Software Testing Life Cycle in Automation Testing of Mobile Application SiPutri Politeknik Negeri Jember

Supervised by Nugroho Setyo Wibowo, S.T, M.T

## Lutfi Ameliya Putri

Study Program of Informatics Engineering Majoring of Information Technology

## **ABSTRACT**

The development of information technology has created various mobile-based information systems that facilitate user activities, including in the world of education. Siputri Polije application is a mobile-based library information system owned by Jember State Polytechnic which provides online book borrowing facilities. This research aims to test the quality and functionality of the Siputri Polije mobile application using the Automation Testing method by applying the Software Testing Life Cyle. This method provides a systematic approach through stages: Requirement Analysis, Test Planning, Test Case Development, Environment Setup, Test Execution, and Test Cycle Closure. Testing is done using Appium and Katalon Studio with a Black Box Testing approach to ensure all the main features run as expected. The results of the test show that STLC is able to increase the effectiveness of the testing process, detect bugs earlier, and produce systematic and structured reports. With the implementation of this automation testing, it is hoped that the quality of the Siputri Polije application can continue to be improved and provide a better user experience.

**Keywords**: Software testing Life Cycle, Automation Testing, Appium, Katalon Studio, Mobile Application Siputri Polije.