

## **Abstract**

**CeLOE Learning Management System (LMS) is a digital platform for both regular and distance education programs at Telkom University, this application is available on the web and mobile. The current testing method on CeLOE LMS Mobile still relies on manual processes. Given the complexity of the application, the current testing method will struggle to cover all user scenarios in the application, resulting in increased testing time. To address these issues, this research proposes to use Model Based Testing (MBT) with Finite State Machine (FSM) to ensure complete coverage for CeLOE LMS Mobile and compare it to the current testing method. FSM is chosen because CeLOE LMS Mobile application is suitable to be modeled as FSM, it also reduces the time needed to create and execute test cases compared to traditional methods. The result shows that MBT using FSM can achieve 100% complete coverage in both node and edge coverage on the created model, with more time efficient than the manual method.**