# ABSTRACT

The development of information and communication technology (ICT) is rapidly increasing and this development cannot be separated from the development of science. ICT development touches all fields including education. With the development of ICT, the presence process is also developing. Presence which is usually done with a manual signature on paper is now developing into a presence that uses fingerprint or RFID and is based on Website or Android. Each of these systems has advantages and disadvantages of each. We can see from the fingerprint system that the level of accuracy is no doubt because it uses a biometric system. However, the presence process is done by queuing one by one as well as RFID. RFID systems are able to read and store data without having to deal with tags as long as the tags are within the reach of the Reader. Bluetooth Low Energy (BLE) Beacon is a simple device in the form of a small wireless based on Bluetooth Low Energy. BLE Beacons can be connected with many devices at the same time. Ble Beacon only sends data when the user turns on the smartphone screen. So that notifications do not appear until the user interacts with an application installed on the smartphone. This is a benchmark in the development of student attendance applications using Android-based BLE Beacon technology. So it is expected that with this application, students can attend at the same time on their Android smartphones while in classrooms that have been equipped with BLE Beacon devices. The application that is integrated with BLE Beacon is built using the Android platform and Firebase database. This application is tested with blackbox testing and whitebox testing. The purpose of this test is to determine whether the application is running as expected.

**Keywords:** Attendance, BLE, Beacon, Android, Firebase.