

ABSTRACT

Technology and information systems that run on the system more and more growing presence, formerly Presence Presence system uses manually using signatures, is now switching its development digital presence system that uses biometric and RFID. But the number of time-consuming and queues, causing a lot of fraud, and error rates in the data summary that was because the greater the human error that cause problems in the Presence system manual. Unlike systems that use digital presence in the form of RFID authentication, the system can confirm their attendance quickly so that it can reduce the queues. But the presence of RFID system that has been running at the moment the data presence will be directly sent to the server, resulting in server load becomes heavy and data traffic becomes congested when many RFID Reader works at the same time. Therefore, the need for technology that can solve the problem. A system that can perform presence quickly, can take pictures to reduce fraud when making attendance, and can perform data summary locally, so that the server load is reduced and the data traffic becomes congested. The system is built on the basis of Single Board Computer is the Raspberry Pi 2 Model B with Mifare RFID module RC-522, which is connected to GPIO on the Raspberry Pi for media authentication, and Pi camera to take pictures. Using media website with a local server and use databases such as MySQL. Some programming languages are also used in the construction of this system, such as Python, HTML, PHP, CSS, and SQL.

Key word : Sistem presensi, Single Board Computer, Raspberry Pi, RFID, Python