ABSTRACT

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Security Monitoring System at the Incubator Door Using the INTY (Incubator Security) Application
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Keywords : e-KTP, incubator, Internet of Things, magnetic door lock, NodeMCU ESP8266, RFID.

(xiii + 56 + Appendices)
Security is something that needs to be considered to create a sense of comfort. The rampant cases of baby theft that often occur in hospitals are usually caused by babies not being properly supervised so that babies are taken / kidnapped by other parties on behalf of hospital employees. This reduces the sense of comfort in the hospital. Therefore, the Internet of Things (IoT) is needed in the baby incubator door security system using Radio Frequenct Identification (RFID) sensors, magnetic door lock sensors as door break-in detection, servo motors as security on the incubator door, Liquid Crystal Display (LCD) as a data viewer, e-KTP as an RFID tag, and applications made with MIT App Inventor connected to NodeMCU ESP8266 and Google Spreadsheets as a substitute for conventional keys. In the e-KTP card reading distance test, the maximum distance of the detected e-KTP is 1cm. In the application there are lock, unlock, and access log features. For the lock and unlock feature, the average delay value is 24 seconds with a very good index of 58.3%. The access log feature is used to monitor when and who has accessed the incubator door. The success rate of the test results of this tool is 100%, namely RFID successfully reading registered and unregistered e-KTPs and the movement of servo motors in accordance with the input data.

Bibliography (1998 – 2023)