

OKU SMART CARD DETECTOR SYSTEM

ABSTRACT

'Orang Kurang Upaya' known as OKU in Malaysia, are part of the community and as legal citizens. They have every rights to participate and be employed without any discrimination. To obtain their rights as an OKU, they are required to register under the Department of Social Welfare, Malaysia (JKM) with the validation of a professional doctor. The authorized JKM staff record the data of the OKU manually in their system. However, the data is only printed on a plain identity card. Since the registration is manually done, which involves filling the OKU's information, saving the data, and retrieving the stored data, an embedded radio frequency identification (RFID) system is proposed to further enhance their current system, most of all as a registration platform for valid OKU registrar. RFID technology contribute in many IoT applications, such as smart system. Generally, the reader and server is merged as a single unit. The system in this project uses the Raspberry Pi 4 (RPi 4) microcomputer, RFID reader and the OKU smart identification card, which is the RFID tags. The process starts from entering the OKU's information and then stores in both the hardware storage, which is the 16GB microSD card, and the software storage. As soon as the RFID reader detects the card, which is up to 5cm of reading range, the system will show all the data stored under the respective card. Hence, the system eases JKM in handling and organising the amounts of OKU data in a long term processes. The stored data can be monitored by the staff through the smart system. They can even control the amount of valid registrar for the OKU rights most of all in using the public facilities.