

**IMPLEMENTASI OPTICAL CHARACTER RECOGNITION (OCR)
UNTUK MEMBANTU TEKNISI DALAM
MENGATASI TROUBLESHOOTING FIBER OPTIK
(KASUS : PT. FAJAR MITRA KRIDA ABADI)**

Oleh

Gede Agus Sutarmawan, NIM 1915101016

Program Studi Ilmu Komputer

Jurusan Teknik Informatika

ABSTRAK

Penelitian ini dilakukan dengan tujuan untuk membandingkan keakuratan serta performa metode OCR di aplikasi *mobile* untuk pendataan redaman *core* pada fiber optik dengan nama FAMIKA. Dalam tahapan pengembangan aplikasi menggunakan metode *prototype*. FAMIKA terdiri dari 2 aktor pengguna sistem yaitu admin melakukan pengelolaan data dilapangan, serta teknisi melakukan input data redaman dari setiap *core* yang telah di OCR (*Optical Character Recognition*). Implementasi OCR di aplikasi FAMIKA menggunakan metode *on-device*. Kemudian sebagai alternatif dibuatkan mode *offline* untuk mengatasi *blankspot* saat *upload form* OCR dengan menggunakan SQLite. Hasil yang didapatkan saat pengujian akurasi pada siang hari didapatkan rata-rata akurasi 86%, sedangkan saat malam hari didapatkan rata-rata akurasi 74%. Kemudian hasil pengujian *performance* pada siang hari didapatkan waktu rata-rata 4,38 detik, sedangkan pada malam hari didapatkan waktu rata-rata sebesar 5,38 detik. Untuk pengujian mode *offline*, beberapa percobaan dilakukan dan berhasil.

Kata Kunci : OCR, *prototype*, SQLite

**IMPLEMENTATION OF OPTICAL CHARACTER RECOGNITION
(OCR) TO ASSIST TECHNICIANS IN TROUBLESHOOTING FIBER
OPTICS**

(CASE STUDY: PT. FAJAR MITRA KRIDA ABADI)

By

Gede Agus Sutarmawan, NIM 1915101016

Computer Science Program

Department of Informatics Engineering

ABSTRACT

This research was conducted with the aim of comparing the accuracy and performance of the OCR method in a mobile application for recording core attenuation in optical fibers under the name FAMIKA. The application development phase used the prototype method. FAMIKA consists of 2 system user actors, namely an admin responsible for data management in the field, and technicians who input attenuation data from each core that has been OCR (Optical Character Recognition) processed. The implementation of OCR in the FAMIKA application uses the on-device method. Additionally, an offline mode was created as an alternative to overcome blank spots when uploading OCR forms using SQLite. The results obtained during accuracy testing in the daytime showed an average accuracy of 86%, while during the nighttime, the average accuracy was 74%. Furthermore, the performance testing results during the daytime showed an average time of 4.38 seconds, while during the nighttime, the average time was 5.38 seconds. Several experiments were conducted for offline mode testing, and they were successful.

Keywords: OCR, prototype, SQLite