

DAFTAR ISI

| | |
|---|------|
| HALAMAN JUDUL DALAM | i |
| HALAMAN PENGESAHAN SKRIPSI..... | ii |
| HALAMAN PERNYATAAN DEWAN PENGUJI | iii |
| HALAMAN PERNYATAAN KEASLIAN SKRIPSI | iv |
| HALAMAN PERNYATAAN PERSETUJUAN PUBLIKASI SKRIPSI..... | v |
| ABSTRAK | vi |
| KATA PENGANTAR | vii |
| DAFTAR ISI..... | ix |
| DAFTAR GAMBAR | xi |
| DAFTAR TABEL..... | xiii |
| | |
| BAB 1 PENDAHULUAN | |
| 1.1 Latar Belakang..... | 1 |
| 1.2 Rumusan Masalah..... | 3 |
| 1.3 Batasan Masalah | 3 |
| 1.4 Tujuan Penelitian | 3 |
| 1.5 Manfaat Penelitian | 4 |
| 1.6 Sistematika Penulisan | 4 |
| | |
| BAB 2 TINJAUAN PUSTAKA | |
| 2.1 Penelitian Terdahulu | 6 |
| 2.2 Rokok..... | 9 |
| 2.3 Merokok..... | 9 |
| 2.4 Artificial Intelligence..... | 9 |
| 2.5 Machine Learning | 11 |
| 2.6 Computer Vision..... | 12 |
| 2.7 Artificial Neural Network..... | 13 |
| 2.8 Deep Learning | 15 |
| 2.9 Convolutional Neural Network..... | 15 |
| 2.10 Deteksi Objek | 16 |
| 2.11 YOLO | 16 |
| 2.12 Darknet | 19 |
| 2.13 Mean Average Precision..... | 19 |
| 2.14 Overfitting..... | 20 |
| 2.15 Split test | 21 |
| 2.16 Python..... | 21 |

| | | |
|------|---------------------------|----|
| 2.17 | OpenCV | 22 |
| 2.18 | PyQt5 | 22 |
| 2.19 | Model Incremental..... | 23 |
| 2.20 | Pengujian Black Box | 24 |

BAB 3 METODOLOGI PENELITIAN

| | | |
|---------|-----------------------------------|----|
| 3.1 | Kerangka Pemikiran | 25 |
| 3.2 | Kerangka Penelitian..... | 25 |
| 3.3 | Sebelum Penelitian | 26 |
| 3.3.1 | Identifikasi Masalah..... | 27 |
| 3.3.2 | Kajian Pustaka | 27 |
| 3.3.3 | Pembuatan Dataset..... | 29 |
| 3.4 | Pengembangan Perangkat Lunak..... | 33 |
| 3.4.1 | Inkremental satu..... | 33 |
| 3.4.1.1 | Analisis..... | 33 |
| 3.4.1.2 | Desain..... | 35 |
| 3.4.1.3 | Implementasi | 36 |
| 3.4.1.4 | Pengujian..... | 44 |
| 3.4.2 | Inkremental dua | 45 |
| 3.4.2.1 | Analisis..... | 46 |
| 3.4.2.2 | Desain..... | 46 |
| 3.4.2.3 | Implementasi | 48 |
| 3.4.2.4 | Pengujian..... | 59 |

BAB 4 ANALISIS DAN PEMBAHASAN

| | | |
|-------|-----------------------------|----|
| 4.1 | Inkremental satu..... | 61 |
| 4.1.1 | Pelatihan Model YOLOv3..... | 61 |
| 4.1.2 | Pengujian Model YOLOv3..... | 62 |
| 4.2 | Inkremental dua | 65 |

BAB 5 SIMPULAN DAN SARAN

| | | |
|-----|---------------|----|
| 5.1 | Simpulan..... | 70 |
| 5.2 | Saran | 70 |

| | |
|-----------------------------|----|
| DAFTAR PUSTAKA | 72 |
| RIWAYAT HIDUP PENULIS | 78 |