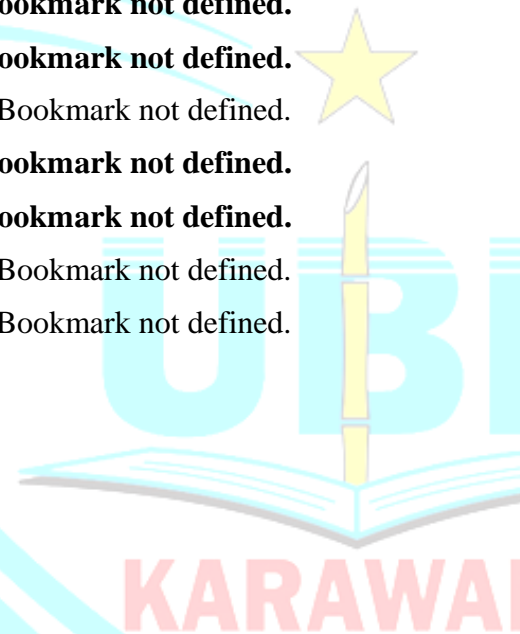


## DAFTAR ISI

<b>LEMBAR PERSETUJUAN</b> .....	Error! Bookmark not defined.
<b>LEMBAR PENGESAHAN</b> .....	Error! Bookmark not defined.
<b>LEMBAR PERNYATAAN</b> .....	Error! Bookmark not defined.
<b>KATA PENGANTAR</b> .....	Error! Bookmark not defined.
<b>ABSTRAK</b> .....	Error! Bookmark not defined.
<b>ABSTRACT</b> .....	Error! Bookmark not defined.
<b>DAFTAR ISI</b> .....	<b>vii</b>
<b>DAFTAR TABEL</b> .....	<b>ix</b>
<b>DAFTAR GAMBAR</b> .....	<b>x</b>
<b>DAFTAR LAMPIRAN</b> .....	<b>xi</b>
<b>BAB I PENDAHULUAN</b> .....	Error! Bookmark not defined.
1.1 Latar Belakang .....	<b>Error! Bookmark not defined.</b>
1.2 Rumusan Masalah .....	<b>Error! Bookmark not defined.</b>
1.3 Tujuan Penelitian .....	<b>Error! Bookmark not defined.</b>
1.4 Manfaat .....	<b>Error! Bookmark not defined.</b>
<b>BAB II TINJAUAN PUSTAKA</b> .....	Error! Bookmark not defined.
2.1 Diabetes.....	<b>Error! Bookmark not defined.</b>
2.2 Support Vector Machine .....	<b>Error! Bookmark not defined.</b>
2.3 Multi-Layer Perceptron.....	<b>Error! Bookmark not defined.</b>
2.4 Data Pre-processing .....	<b>Error! Bookmark not defined.</b>
2.5 SMOTE-ENN.....	<b>Error! Bookmark not defined.</b>
2.6 Confusion Matrix .....	<b>Error! Bookmark not defined.</b>
2.7 Penelitian Terkait .....	<b>Error! Bookmark not defined.</b>
<b>BAB III METODE PENELITIAN</b> .....	Error! Bookmark not defined.
3.1 Objek Penelitian .....	<b>Error! Bookmark not defined.</b>
3.2 Prosedur Penelitian.....	<b>Error! Bookmark not defined.</b>
3.2.1 Pengambilan Data .....	<b>Error! Bookmark not defined.</b>
3.2.2 Pre-processing .....	<b>Error! Bookmark not defined.</b>
3.2.3 Penerapan Algoritma.....	<b>Error! Bookmark not defined.</b>
3.2.4 Evaluasi .....	<b>Error! Bookmark not defined.</b>
3.2.5 Deployment .....	<b>Error! Bookmark not defined.</b>

<b>BAB IV HASIL DAN PEMBAHASAN</b> .....	Error! Bookmark not defined.
4.1 Pengambilan Data .....	<b>Error! Bookmark not defined.</b>
4.2 Data Pre-processing .....	<b>Error! Bookmark not defined.</b>
4.2.1 <i>Data Cleaning</i> .....	<b>Error! Bookmark not defined.</b>
4.2.2 Penanganan Class Imbalance .....	<b>Error! Bookmark not defined.</b>
4.2.3 Normalisasi Data .....	<b>Error! Bookmark not defined.</b>
4.2.4 Pembagian Data .....	<b>Error! Bookmark not defined.</b>
4.3 Penerapan Algoritma.....	<b>Error! Bookmark not defined.</b>
4.3.1 Support Vector Machine (SVM).....	<b>Error! Bookmark not defined.</b>
4.3.2 Multi-Layer Perceptron (MLP).....	<b>Error! Bookmark not defined.</b>
4.4 Evaluasi .....	<b>Error! Bookmark not defined.</b>
4.5 Deployment.....	<b>Error! Bookmark not defined.</b>
<b>BAB V KESIMPULAN DAN SARAN</b> .....	Error! Bookmark not defined.
5.1 Kesimpulan .....	<b>Error! Bookmark not defined.</b>
5.2 Saran.....	<b>Error! Bookmark not defined.</b>
<b>DAFTAR PUSTAKA</b> .....	Error! Bookmark not defined.
<b>LAMPIRAN</b> .....	Error! Bookmark not defined.



## DAFTAR TABEL

Tabel 2.1 Tabel Penelitian Terkait .....	<b>Error! Bookmark not defined.</b>
Tabel 4.1 Atribut data .....	<b>Error! Bookmark not defined.</b>
Tabel 4.2 Hasil penemuan missing values .....	<b>Error! Bookmark not defined.</b>
Tabel 4.3 Jumlah <i>Outlier</i> yang Terdeteksi pada Atribut.....	<b>Error! Bookmark not defined.</b>
Tabel 4.4 Jumlah data berdasarkan <i>Outcome</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.5 Perbandingan sebelum dan sesudah penerapan SMOTE-ENN .....	<b>Error! Bookmark not defined.</b>
Tabel 4.6 Hasil pembagian dataset.....	<b>Error! Bookmark not defined.</b>
Tabel 4.7 Hasil pembagian dataset tanpa penerapan SMOTE-ENN .....	<b>Error! Bookmark not defined.</b>
Tabel 4.8 Metrik validasi kandidat arsitektur MLP .....	<b>Error! Bookmark not defined.</b>
Tabel 4.9 Nilai metrik model SVM dan MLP.....	<b>Error! Bookmark not defined.</b>
Tabel 4.10 Nilai metrik model SVM dan MLP tanpa SMOTE-ENN.....	<b>Error! Bookmark not defined.</b>
Tabel 4.11 Hasil Pengujian Aplikasi.....	<b>Error! Bookmark not defined.</b>

## DAFTAR GAMBAR

- Gambar 2.1 Contoh pengelompokan 2 (dua) kelas data dengan *hyperplane*. **Error! Bookmark not defined.**
- Gambar 2.2 Soft margin.....**Error! Bookmark not defined.**
- Gambar 2.3 Dataset yang tidak bisa dikelompokan secara linier**Error! Bookmark not defined.**
- Gambar 2.4 Visualisasi jaringan syaraf tiruan .....**Error! Bookmark not defined.**
- Gambar 2.5 Multi-layer perceptron.....**Error! Bookmark not defined.**
- Gambar 2.6 Confusion Matrix .....**Error! Bookmark not defined.**
- Gambar 3.1 Alur penelitian.....**Error! Bookmark not defined.**
- Gambar 3.2 Contoh isi dataset .....**Error! Bookmark not defined.**
- Gambar 4.1 Isi dataset.....**Error! Bookmark not defined.**
- Gambar 4.2 Contoh eliminasi missing values.....**Error! Bookmark not defined.**
- Gambar 4.3 Hasil dari eliminasi missing values....**Error! Bookmark not defined.**
- Gambar 4.4 Contoh eliminasi data duplikat.....**Error! Bookmark not defined.**
- Gambar 4.5 Hasil dari proses eliminasi data duplikat..... **Error! Bookmark not defined.**
- Gambar 4.6 *Boxplot* dataset .....**Error! Bookmark not defined.**
- Gambar 4.7 Hasil dataset setelah eliminasi *outlier***Error! Bookmark not defined.**
- Gambar 4.8 Jumlah Data Berdasarkan Atribut Outcome..... **Error! Bookmark not defined.**
- Gambar 4.9 Kode implementasi penerapan SMOTE-ENN. **Error! Bookmark not defined.**
- Gambar 4.10 Hasil penerapan SMOTE-ENN.....**Error! Bookmark not defined.**
- Gambar 4.11 Hasil dari penanganan *class imbalance* ..... **Error! Bookmark not defined.**
- Gambar 4.12 Dataset setelah melalui proses normalisasi .... **Error! Bookmark not defined.**
- Gambar 4.13 *Confusion Matrix* SVM.....**Error! Bookmark not defined.**
- Gambar 4.14 *Confusion Matrix* SVM tanpa SMOTE-ENN **Error! Bookmark not defined.**
- Gambar 4.15 Ilustrasi proses *One-Hot Encoding* ..**Error! Bookmark not defined.**

Gambar 4.16 Hasil encoding pada data latih .....**Error! Bookmark not defined.**

Gambar 4.17 Kandidat arsitektur model MLP .....**Error! Bookmark not defined.**

Gambar 4.18 *Confusion Matrix* MLP .....**Error! Bookmark not defined.**

Gambar 4.19 *Confusion Matrix* MLP tanpa SMOTE-ENN **Error! Bookmark not defined.**

Gambar 4.20 Tampilan “Isi Data Diri” .....**Error! Bookmark not defined.**

Gambar 4.21 Tampilan "*Isi Parameter*" .....**Error! Bookmark not defined.**

Gambar 4.22 Tampilan "*Hasil Checkup*" .....**Error! Bookmark not defined.**



## DAFTAR LAMPIRAN

Lampiran 1 Data pengujian aplikasi .....**Error! Bookmark not defined.**

Lampiran 2 Estimasi penderita diabetes (Sumber: IDF)..... **Error! Bookmark not defined.**

Lampiran 3 Source code program.....**Error! Bookmark not defined.**

