

## DAFTAR ISI

LEMBAR PENGESAHAN .....	ii
LEMBAR PERNYATAAN ORISINALITAS .....	iii
ABSTRAK .....	iv
ABSTRACT .....	v
KATA PENGANTAR.....	vi
UCAPAN TERIMA KASIH .....	vii
DAFTAR ISI.....	viii
DAFTAR TABEL .....	xii
<b>BAB I PENDAHULUAN.....</b>	<b>1</b>
<b>1.1 Latar Belakang .....</b>	<b>1</b>
<b>1.2 Rumusan Masalah.....</b>	<b>2</b>
<b>1.3 Tujuan dan Manfaat .....</b>	<b>2</b>
<b>1.4 Batasan Masalah .....</b>	<b>2</b>
<b>1.5 Metode Penelitian .....</b>	<b>2</b>
<b>1.6 Sistematika Penulisan .....</b>	<b>4</b>
<b>BAB II TINJAUAN PUSTAKA.....</b>	<b>5</b>
<b>2.1 Deteksi Wajah.....</b>	<b>5</b>
<b>2.2 <i>Facial Expressions Recognition</i> .....</b>	<b>5</b>
<b>2.3 <i>Convolution Neural Network</i> .....</b>	<b>6</b>
<b>2.3.1 <i>Convolutional Layer</i> .....</b>	<b>6</b>
<b>2.3.2 <i>Pooling Layer</i>.....</b>	<b>7</b>
<b>2.3.3 <i>Fully-Connected Layer</i>.....</b>	<b>8</b>
<b>2.3.4 <i>Batch Normalization</i> .....</b>	<b>8</b>
<b>2.3.5 <i>Dropouot</i> .....</b>	<b>9</b>
<b>2.4 <i>Activation</i> .....</b>	<b>9</b>
<b>2.5 <i>Adam Optimizer</i> .....</b>	<b>10</b>
<b>2.6 <i>Confusion Matrix</i> .....</b>	<b>10</b>
<b>2.7 <i>Algoritma Fuzzy</i>.....</b>	<b>11</b>

<b>BAB III PERANCANGAN SISTEM .....</b>	<b>12</b>
<b>3.1 Desain Sistem .....</b>	<b>12</b>
<b>3.2 Datasets .....</b>	<b>13</b>
<b>3.2.1 Datasets Klasifikasi.....</b>	<b>13</b>
<b>3.2.2 Datasets Video Juri.....</b>	<b>14</b>
<b>3.2.3 Datasets Nilai Keanggotaan .....</b>	<b>14</b>
<b>3.3 Perancangan Model Klasifikasi .....</b>	<b>15</b>
<b>3.3.1 Pre-processing .....</b>	<b>16</b>
<b>3.3.2 Data Splitting .....</b>	<b>16</b>
<b>3.3.3 VGG16 Architecture Modified .....</b>	<b>17</b>
<b>3.3.4 Training .....</b>	<b>18</b>
<b>3.3.5 Evaluasi .....</b>	<b>19</b>
<b>3.4 Perancangan Mesin Prediksi.....</b>	<b>19</b>
<b>3.4.1 Input Video .....</b>	<b>20</b>
<b>3.4.2 Pre-Processing .....</b>	<b>20</b>
<b>3.4.3 Pembacaan Ekspresi .....</b>	<b>20</b>
<b>3.4.4 Fuzzy Logic.....</b>	<b>21</b>
<b>BAB IV SKENARIO PENGUJIAN .....</b>	<b>22</b>
<b>4.1 Pengujian Model Klasifikasi .....</b>	<b>22</b>
<b>4.1.1 Pengujian Rasio Data.....</b>	<b>22</b>
<b>4.1.2 Pengujian Nilai Parameter .....</b>	<b>23</b>
<b>4.2 Analisis Pengujian Model Klasifikasi.....</b>	<b>25</b>
<b>4.3 Pengujian Model Prediksi .....</b>	<b>28</b>
<b>4.4 Pengujian Perhitungan Fuzzy .....</b>	<b>30</b>
<b>4.4.1 Pengujian Keputusan Juri ‘Yes’ .....</b>	<b>30</b>
<b>4.4.2 Pengujian Keputusan Juri ‘No’ .....</b>	<b>32</b>
<b>BAB V SIMPULAN DAN SARAN.....</b>	<b>35</b>
<b>5.1 Simpulan .....</b>	<b>35</b>
<b>5.2 Saran.....</b>	<b>35</b>

<b>DAFTAR PUSTAKA .....</b>	<b>36</b>
<b>LAMPIRAN-LAMPIRAN .....</b>	<b>39</b>