

DAFTAR GAMBAR

Gambar 2.1 Proses pengolahan citra.....	4
Gambar 2.2 Grayscale Level.....	5
Gambar 2.3 Jenis Cacat Permukaan Baja	5
Gambar 2.4 Arsitektur Sederhana CNN.....	6
Gambar 2.5 Operasi Konvolusi.....	6
Gambar 2.6 Operasi Max Pooling.....	7
Gambar 2.7 Operasi Fully Connected Layer.....	8
Gambar 2. 8 Operasi YOLO	9
Gambar 2. 9 Perbandingan nilai AP dan FPS YOLOv4 dengan metode lain.....	11
Gambar 2. 10 Arsitektur YOLOv4.....	11
Gambar 2. 11 Arsitektur SPP	12
Gambar 2. 12 Arsitektur Modifikasi PANet	13
Gambar 3.1 Desain Perancangan Sistem	15
Gambar 3. 2 Diagram Alir Sistem.....	16
Gambar 3. 3 Cacat <i>Crazing</i>	17
Gambar 3. 4 Cacat <i>Rolled-In Scale</i>	17
Gambar 3. 5 Cacat <i>Patches</i>	18
Gambar 3. 6 Cacat <i>Pitted Surface</i>	18
Gambar 3. 7 Cacat <i>Inclusion</i>	19
Gambar 3. 8 Cacat <i>Scratches</i>	19
Gambar 3.9 Proses <i>Resize</i> Citra	20
Gambar 3. 10 Proses <i>Replication</i>	20
Gambar 3. 11 Nilai <i>Hyperparameter</i> Model.....	21
Gambar 4. 1 Nilai <i>Precision</i> berdasarkan <i>Learning Rate</i>	25
Gambar 4. 2 Nilai <i>Recall</i> berdasarkan <i>Learning Rate</i>	25
Gambar 4. 3 Nilai mAP berdasarkan <i>Learning Rate</i>	26
Gambar 4. 4 Nilai <i>Precision</i> berdasarkan <i>Momentum</i>	27
Gambar 4. 5 Nilai <i>Recall</i> berdasarkan <i>Momentum</i>	27

Gambar 4. 6 Nilai mAP berdasarkan <i>Momentum</i>	28
Gambar 4. 7 Nilai <i>Precision</i> berdasarkan <i>Subdivision</i>	29
Gambar 4. 8 Nilai <i>Recall</i> berdasarkan <i>Subdivision</i>	29
Gambar 4. 9 Nilai mAP berdasarkan <i>Subdivision</i>	30