

## DAFTAR ISI

PERNYATAAN .....	<b>Error! Bookmark not defined.</b>
SURAT BUKTI PENELITIAN.....	<b>Error! Bookmark not defined.</b>
LEMBAR PENGESAHAN PEMBIMBING.....	<b>Error! Bookmark not defined.</b>
LEMBAR PENGESAHAN DOSEN PENGUJI.....	<b>Error! Bookmark not defined.</b>
HALAMAN PERSEMBAHAN .....	<b>Error! Bookmark not defined.</b>
HALAMAN MOTTO.....	<b>Error! Bookmark not defined.</b>
KATA PENGANTAR .....	<b>Error! Bookmark not defined.</b>
DAFTAR ISI.....	x
DAFTAR TABEL.....	xiii
DAFTAR GAMBAR.....	xiv
ABSTRAK.....	<b>Error! Bookmark not defined.</b>
BAB I PENDAHULUAN.....	<b>Error! Bookmark not defined.</b>
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. Batasan Masalah.....	<b>Error! Bookmark not defined.</b>
1.5. Manfaat Penelitian .....	<b>Error! Bookmark not defined.</b>
1.6. Sistematika Penulisan .....	<b>Error! Bookmark not defined.</b>
BAB II KAJIAN PUSTAKA.....	<b>Error! Bookmark not defined.</b>
2.1. Kajian Induktif .....	<b>Error! Bookmark not defined.</b>
2.1.1. Perancangan Mesin Peniris Minyak .....	<b>Error! Bookmark not defined.</b>
2.1.2. Metode TRIZ ( <i>Teoriya Resheniya Izobreatatelskikh Zadatch</i> ) .....	<b>Error!</b> <b>Bookmark not defined.</b>
2.2. Kajian Deduktif.....	<b>Error! Bookmark not defined.</b>
2.2.1. Minyak Goreng.....	<b>Error! Bookmark not defined.</b>
2.2.2. Mesin Peniris Minyak.....	<b>Error! Bookmark not defined.</b>
2.2.3. TRIZ ( <i>Teoriya Resheniya Izobreatatelskikh Zadatch</i> ).....	<b>Error! Bookmark not</b> <b>defined.</b>

2.2.4.	Rumus-rumus Perhitungan Umum .....	<b>Error! Bookmark not defined.</b>
2.2.5.	Validitas .....	<b>Error! Bookmark not defined.</b>
2.2.6.	Reliabilitas .....	<b>Error! Bookmark not defined.</b>
BAB III METODE PENELITIAN .....		<b>Error! Bookmark not defined.</b>
3.1.	Objek dan Lokasi Penelitian .....	<b>Error! Bookmark not defined.</b>
3.2.	Instrumen Penelitian.....	<b>Error! Bookmark not defined.</b>
3.3.	Sumber Data Primer dan Sekunder .....	<b>Error! Bookmark not defined.</b>
3.4.	Metode Pengumpulan Data .....	<b>Error! Bookmark not defined.</b>
3.5.	Populasi dan Sampel .....	<b>Error! Bookmark not defined.</b>
3.6.1.	Populasi.....	<b>Error! Bookmark not defined.</b>
3.6.2.	Sampel .....	<b>Error! Bookmark not defined.</b>
3.6.	Metode Pengolahan Data .....	<b>Error! Bookmark not defined.</b>
3.7.	Metode Analisis .....	<b>Error! Bookmark not defined.</b>
3.7.1.	Analisis Kualitatif .....	<b>Error! Bookmark not defined.</b>
3.7.2.	Validasi Instrumen Survei secara Kualitatif ...	<b>Error! Bookmark not defined.</b>
3.7.3.	Uji Validitas .....	<b>Error! Bookmark not defined.</b>
3.7.4.	Uji Reabilitas .....	<b>Error! Bookmark not defined.</b>
3.7.5.	Uji <i>Marginal Homogeneity</i> .....	<b>Error! Bookmark not defined.</b>
3.8.	Alur Penelitian .....	<b>Error! Bookmark not defined.</b>
BAB IV PENGUMPULAN DAN PENGOLAHAN DATA		<b>Error! Bookmark not defined.</b>
4.1.	Pengumpulan Data .....	<b>Error! Bookmark not defined.</b>
4.1.1.	Profil Responden <i>Pilot Study</i> .....	<b>Error! Bookmark not defined.</b>
4.1.2.	Identitas Responden.....	<b>Error! Bookmark not defined.</b>
4.1.3.	Identitas Keinginan Pengguna .....	<b>Error! Bookmark not defined.</b>
4.1.4.	Identitas Kebutuhan Produk.....	<b>Error! Bookmark not defined.</b>
4.2.	Pengolahan Data.....	<b>Error! Bookmark not defined.</b>
4.2.1.	Validasi Instrumen Survei secara Kualitatif ...	<b>Error! Bookmark not defined.</b>
4.2.2.	Uji Validitas dan Reliabilitas .....	<b>Error! Bookmark not defined.</b>
4.3.	Aplikasi Metode TRIZ .....	<b>Error! Bookmark not defined.</b>
4.3.1.	Perbaikan Rancangan Desain.....	<b>Error! Bookmark not defined.</b>
4.3.2.	Proses Aplikasi TRIZ.....	<b>Error! Bookmark not defined.</b>

4.3.3.	Perhitungan Perencanaan Mesin Peniris Minyak	<b>Error! Bookmark not defined.</b>
4.3.4.	Virtual Desain .....	<b>Error! Bookmark not defined.</b>
4.3.5.	Anggaran Biaya <i>Prototype</i> .....	<b>Error! Bookmark not defined.</b>
4.3.6.	Prinsip Kerja Desain .....	<b>Error! Bookmark not defined.</b>
4.3.7.	Validasi Desain Usulan.....	<b>Error! Bookmark not defined.</b>
BAB V PEMBAHASAN.....		<b>Error! Bookmark not defined.</b>
5.1.	Analisis <i>Customer</i> Atribut Desain Mesin Peniris minyak	<b>Error! Bookmark not defined.</b>
5.2.	Analisis Sebab Akibat .....	<b>Error! Bookmark not defined.</b>
5.3.	Analisis <i>Inventive Principles</i> .....	<b>Error! Bookmark not defined.</b>
5.3.1.	Atribut Desain Menarik .....	<b>Error! Bookmark not defined.</b>
5.3.2.	Atribut tidak Bising .....	<b>Error! Bookmark not defined.</b>
5.3.3.	Atribut Kecepatan Putaran.....	<b>Error! Bookmark not defined.</b>
5.3.4.	Atribut Aman .....	<b>Error! Bookmark not defined.</b>
5.4.	Analisis Perhitungan Perencanaan Mesin Peniris Minyak	<b>Error! Bookmark not defined.</b>
5.5.	Analisis Validasi Desain Usulan.....	<b>Error! Bookmark not defined.</b>
BAB VI KESIMPULAN .....		<b>Error! Bookmark not defined.</b>
6.1.	Kesimpulan .....	<b>Error! Bookmark not defined.</b>
6.2.	Saran.....	<b>Error! Bookmark not defined.</b>
DAFTAR PUSTAKA .....		<b>Error! Bookmark not defined.</b>
LAMPIRAN.....		<b>Error! Bookmark not defined.</b>

## DAFTAR TABEL

Tabel 2.1 Perbandingan penelitian sebelumnya .....	<b>Error! Bookmark not defined.</b>
Tabel 2.2 40 Invention Principles .....	<b>Error! Bookmark not defined.</b>
Tabel 2.3 TRIZ 39 Parameter .....	<b>Error! Bookmark not defined.</b>
Tabel 3.1 Klasifikasi Nilai Cronbach Alpha.....	<b>Error! Bookmark not defined.</b>
Tabel 4.1 Profil responden <i>pilot study</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.2 Identitas Responden.....	<b>Error! Bookmark not defined.</b>
Tabel 4.3 Keinginan Pengguna.....	<b>Error! Bookmark not defined.</b>
Tabel 4.4 Kebutuhan produk .....	<b>Error! Bookmark not defined.</b>
Tabel 4.5 Hasil <i>pilot study</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.6 Hasil SPSS uji validitas data.....	<b>Error! Bookmark not defined.</b>
Tabel 4.7 Hasil SPSS uji reliabilitas data .....	<b>Error! Bookmark not defined.</b>
Tabel 4.8 Atribut perancangan desain .....	<b>Error! Bookmark not defined.</b>
Tabel 4.9 <i>Subsystem</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.10 <i>Supersystem</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.11 <i>Resume</i> akar masalah.....	<b>Error! Bookmark not defined.</b>
Tabel 4.12 <i>Improving feature</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.13 <i>Worsening feature</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.14 Hasil kontradiksi improving feature dan worsening feature	<b>Error! Bookmark not defined.</b>
	<b>not defined.</b>
Tabel 4.15 <i>Inventive principles</i> atribut desain menarik.....	<b>Error! Bookmark not defined.</b>
Tabel 4.16 <i>Inventive principles</i> atribut tidak bising .....	<b>Error! Bookmark not defined.</b>
Tabel 4.17 <i>Inventive principles</i> atribut pengaturan kecepatan putaran	<b>Error! Bookmark not defined.</b>
	<b>not defined.</b>
Tabel 4.18 <i>Inventive principles</i> atribut aman.....	<b>Error! Bookmark not defined.</b>
Tabel 4.19 Anggaran biaya <i>prototype</i> .....	<b>Error! Bookmark not defined.</b>
Tabel 4.20 Hasil Uji <i>Marginal Homogeneity</i> .....	<b>Error! Bookmark not defined.</b>



## DAFTAR GAMBAR

- Gambar 2.1 *The TRIZ Problem Solving Method* ..... **Error! Bookmark not defined.**
- Gambar 2.2 Matriks Kontradiksi ..... **Error! Bookmark not defined.**
- Gambar 3.1 *Flowchart* penelitian ..... **Error! Bookmark not defined.**
- Gambar 4.1 *Root Conflict Analysis* Mesin Peniris Minyak.. **Error! Bookmark not defined.**
- Gambar 4.2 Visual desain mesin peniris minyak tampak depan **Error! Bookmark not defined.**
- Gambar 4.3 Visual desain mesin peniris minyak tampak atas **Error! Bookmark not defined.**
- Gambar 4.4 Tampilan motor listrik poros penyambung keranjang peniris secara terbuka ..... **Error! Bookmark not defined.**
- Gambar 4.5 Tampilan kerangka mesin tertutup dengan keranjang peniris **Error! Bookmark not defined.**
- Gambar 4.6 Tampilan kerangka mesin peniris minyak tampak depan **Error! Bookmark not defined.**
- Gambar 4.7 Tampilan komponen tabung mesin peniris minyak transparan ..... **Error! Bookmark not defined.**
- Gambar 4.8 Tampilan kerangka tabung mesin peniris tampak atas **Error! Bookmark not defined.**
- Gambar 4.9 Tampilan motor listrik dan komponen kabel mesin peniris **Error! Bookmark not defined.**
- Gambar 4.10 Tampilan peredam suara pada rangka tabung mesin peniris minyak ..... **Error! Bookmark not defined.**
- Gambar 4.11 Tampilan tombol/saklar pengaturan kecepatan putaran **Error! Bookmark not defined.**
- Gambar 4.12 Tampilan kaki rangka tabung mesin peniris minyak **Error! Bookmark not defined.**
- Gambar 4.13 Tampilan gigi kopel pada keranjang peniris ... **Error! Bookmark not defined.**

Gambar 4.14 Tampilan poros dan kopel pengunci pada keranjang peniris **Error! Bookmark not defined.**

Gambar 4.15 Tampilan poros dan kopel pengunci pada keranjang peniris **Error! Bookmark not defined.**