

LAMPIRAN

Lampiran 1. Rute Distribusi

- $S(K1,K3) = J(G,K1) + J(G,K3) - J(K1,K3)$
 $= 28 \text{ km} + 28 \text{ km} - 7,5 \text{ km} = 48,5 \text{ km}$
- $S(K1,K4) = J(G,K1) + J(G,K4) - J(K1,K4)$
 $= 28 \text{ km} + 33 \text{ km} - 25 \text{ km} = 36 \text{ km}$
- $S(K1,K5) = J(G,K1) + J(G,K5) - J(K1,K5)$
 $= 28 \text{ km} + 27 \text{ km} - 10 \text{ km} = 45 \text{ km}$
- $S(K1,K6) = J(G,K1) + J(G,K6) - J(K1,K6)$
 $= 28 \text{ km} + 16 \text{ km} - 38 \text{ km} = 6 \text{ km}$
- $S(K1,K7) = J(G,K1) + J(G,K7) - J(K1,K7)$
 $= 28 \text{ km} + 14 \text{ km} - 23 \text{ km} = 19 \text{ km}$
- $S(K1,K8) = J(G,K1) + J(G,K8) - J(K1,K8)$
 $= 28 \text{ km} + 6 \text{ km} - 30 \text{ km} = 4 \text{ km}$
- $S(K1,K9) = J(G,K1) + J(G,K9) - J(K1,K9)$
 $= 28 \text{ km} + 25 \text{ km} - 25 \text{ km} = 28 \text{ km}$
- $S(K1,K10) = J(G,K1) + J(G,K10) - J(K1,K10)$
 $= 28 \text{ km} + 16 \text{ km} - 31 \text{ km} = 13 \text{ km}$
- $S(K1,K11) = J(G,K1) + J(G,K11) - J(K1,K11)$
 $= 28 \text{ km} + 30 \text{ km} - 11 \text{ km} = 47 \text{ km}$
- $S(K1,K12) = J(G,K1) + J(G,K12) - J(K1,K12)$
 $= 28 \text{ km} + 29 \text{ km} - 12 \text{ km} = 45 \text{ km}$
- $S(K2,K3) = J(G,K2) + J(G,K3) - J(K2,K3)$
 $= 30 \text{ km} + 28 \text{ km} - 4,5 \text{ km} = 53,5 \text{ km}$
- $S(K2,K4) = J(G,K2) + J(G,K4) - J(K2,K4)$
 $= 30 \text{ km} + 33 \text{ km} - 16 \text{ km} = 47 \text{ km}$
- $S(K2,K5) = J(G,K2) + J(G,K5) - J(K2,K5)$
 $= 30 \text{ km} + 27 \text{ km} - 3,5 \text{ km} = 53,5 \text{ km}$
- $S(K2,K6) = J(G,K2) + J(G,K6) - J(K2,K6)$
 $= 30 \text{ km} + 16 \text{ km} - 30 \text{ km} = 16 \text{ km}$
- $S(K2,K7) = J(G,K2) + J(G,K7) - J(K2,K7)$
 $= 30 \text{ km} + 14 \text{ km} - 23 \text{ km} = 21 \text{ km}$
- $S(K2,K8) = J(G,K2) + J(G,K8) - J(K2,K8)$
 $= 30 \text{ km} + 6 \text{ km} - 25 \text{ km} = 11 \text{ km}$
- $S(K2,K9) = J(G,K2) + J(G,K9) - J(K2,K9)$
 $= 30 \text{ km} + 25 \text{ km} - 17 \text{ km} = 38 \text{ km}$

- $S(K2,K10) = J(G,K2) + J(G,K10) - J(K2,K10)$
 $= 30 \text{ km} + 16 \text{ km} - 25 \text{ km} = 21 \text{ km}$
- $S(K2,K11) = J(G,K2) + J(G,K11) - J(K2,K11)$
 $= 30 \text{ km} + 30 \text{ km} - 2 \text{ km} = 58 \text{ km}$
- $S(K2,K12) = J(G,K2) + J(G,K12) - J(K2,K12)$
 $= 30 \text{ km} + 29 \text{ km} - 3 \text{ km} = 56 \text{ km}$
- $S(K3,K4) = J(G,K3) + J(G,K4) - J(K3,K4)$
 $= 28 \text{ km} + 33 \text{ km} - 19 \text{ km} = 42 \text{ km}$
- $S(K3,K5) = J(G,K3) + J(G,K5) - J(K3,K5)$
 $= 28 \text{ km} + 27 \text{ km} - 3,5 \text{ km} = 51,5 \text{ km}$
- $S(K3,K6) = J(G,K3) + J(G,K6) - J(K3,K6)$
 $= 28 \text{ km} + 16 \text{ km} - 32 \text{ km} = 12 \text{ km}$
- $S(K3,K7) = J(G,K3) + J(G,K7) - J(K3,K7)$
 $= 28 \text{ km} + 14 \text{ km} - 17 \text{ km} = 25 \text{ km}$
- $S(K3,K8) = J(G,K3) + J(G,K8) - J(K3,K8)$
 $= 28 \text{ km} + 6 \text{ km} - 24 \text{ km} = 10 \text{ km}$
- $S(K3,K9) = J(G,K3) + J(G,K9) - J(K3,K9)$
 $= 28 \text{ km} + 25 \text{ km} - 19 \text{ km} = 34 \text{ km}$
- $S(K3,K10) = J(G,K3) + J(G,K10) - J(K3,K10)$
 $= 28 \text{ km} + 16 \text{ km} - 25 \text{ km} = 19 \text{ km}$
- $S(K3,K11) = J(G,K3) + J(G,K11) - J(K3,K11)$
 $= 28 \text{ km} + 30 \text{ km} - 6,5 \text{ km} = 51,5 \text{ km}$
- $S(K3,K12) = J(G,K3) + J(G,K12) - J(K3,K12)$
 $= 28 \text{ km} + 29 \text{ km} - 5,5 \text{ km} = 51,5 \text{ km}$
- $S(K4,K5) = J(G,K4) + J(G,K5) - J(K4,K5)$
 $= 33 \text{ km} + 27 \text{ km} - 18 \text{ km} = 42 \text{ km}$
- $S(K4,K6) = J(G,K4) + J(G,K6) - J(K4,K6)$
 $= 33 \text{ km} + 16 \text{ km} - 18 \text{ km} = 31 \text{ km}$
- $S(K4,K7) = J(G,K4) + J(G,K7) - J(K4,K7)$
 $= 33 \text{ km} + 14 \text{ km} - 33 \text{ km} = 14 \text{ km}$
- $S(K4,K8) = J(G,K4) + J(G,K8) - J(K4,K8)$
 $= 33 \text{ km} + 6 \text{ km} - 25 \text{ km} = 14 \text{ km}$
- $S(K4,K9) = J(G,K4) + J(G,K9) - J(K4,K9)$
 $= 33 \text{ km} + 25 \text{ km} - 10 \text{ km} = 48 \text{ km}$
- $S(K4,K10) = J(G,K4) + J(G,K10) - J(K4,K10)$
 $= 33 \text{ km} + 16 \text{ km} - 19 \text{ km} = 30 \text{ km}$
- $S(K4,K11) = J(G,K4) + J(G,K11) - J(K4,K11)$

- $$= 33 \text{ km} + 30 \text{ km} - 18 \text{ km} = 45 \text{ km}$$
- $$\bullet \text{ S(K4,K12)} = J(G,K4) + J(G,K12) - J(K4,K12)$$

$$= 33 \text{ km} + 29 \text{ km} - 16 \text{ km} = 46 \text{ km}$$
- $$\bullet \text{ S(K5,K6)} = J(G,K5) + J(G,K6) - J(K5,K6)$$

$$= 27 \text{ km} + 16 \text{ km} - 32 \text{ km} = 11 \text{ km}$$
- $$\bullet \text{ S(K5,K7)} = J(G,K5) + J(G,K7) - J(K5,K7)$$

$$= 27 \text{ km} + 14 \text{ km} - 19 \text{ km} = 22 \text{ km}$$
- $$\bullet \text{ S(K5,K8)} = J(G,K5) + J(G,K8) - J(K5,K8)$$

$$= 27 \text{ km} + 6 \text{ km} - 22 \text{ km} = 11 \text{ km}$$
- $$\bullet \text{ S(K5,K9)} = J(G,K5) + J(G,K9) - J(K5,K9)$$

$$= 27 \text{ km} + 25 \text{ km} - 17 \text{ km} = 35 \text{ km}$$
- $$\bullet \text{ S(K5,K10)} = J(G,K5) + J(G,K10) - J(K5,K10)$$

$$= 27 \text{ km} + 16 \text{ km} - 26 \text{ km} = 17 \text{ km}$$
- $$\bullet \text{ S(K5,K11)} = J(G,K5) + J(G,K11) - J(K5,K11)$$

$$= 27 \text{ km} + 30 \text{ km} - 4,5 \text{ km} = 52,5 \text{ km}$$
- $$\bullet \text{ S(K5,K12)} = J(G,K5) + J(G,K12) - J(K5,K12)$$

$$= 27 \text{ km} + 29 \text{ km} - 5,5 \text{ km} = 50,5 \text{ km}$$
- $$\bullet \text{ (K6,K7)} = J(G,K6) + J(G,K7) - J(K6,K7)$$

$$= 16 \text{ km} + 14 \text{ km} - 29 \text{ km} = 1 \text{ km}$$
- $$\bullet \text{ S(K6,K8)} = J(G,K6) + J(G,K8) - J(K6,K8)$$

$$= 16 \text{ km} + 6 \text{ km} - 20 \text{ km} = 2 \text{ km}$$
- $$\bullet \text{ S(K6,K9)} = J(G,K6) + J(G,K9) - J(K6,K9)$$

$$= 16 \text{ km} + 25 \text{ km} - 14 \text{ km} = 27 \text{ km}$$
- $$\bullet \text{ S(K6,K10)} = J(G,K6) + J(G,K10) - J(K6,K10)$$

$$= 16 \text{ km} + 16 \text{ km} - 14 \text{ km} = 18 \text{ km}$$
- $$\bullet \text{ S(K6,K11)} = J(G,K6) + J(G,K11) - J(K6,K11)$$

$$= 16 \text{ km} + 30 \text{ km} - 30 \text{ km} = 16 \text{ km}$$
- $$\bullet \text{ S(K6,K12)} = J(G,K6) + J(G,K12) - J(K6,K12)$$

$$= 16 \text{ km} + 29 \text{ km} - 28 \text{ km} = 17 \text{ km}$$
- $$\bullet \text{ (K7,K8)} = J(G,K7) + J(G,K8) - J(K7,K8)$$

$$= 14 \text{ km} + 6 \text{ km} - 11 \text{ km} = 9 \text{ km}$$
- $$\bullet \text{ S(K7,K9)} = J(G,K7) + J(G,K9) - J(K7,K9)$$

$$= 14 \text{ km} + 25 \text{ km} - 25 \text{ km} = 14 \text{ km}$$
- $$\bullet \text{ S(K7,K10)} = J(G,K7) + J(G,K10) - J(K7,K10)$$

$$= 14 \text{ km} + 16 \text{ km} - 20 \text{ km} = 10 \text{ km}$$
- $$\bullet \text{ S(K7,K11)} = J(G,K7) + J(G,K11) - J(K7,K11)$$

$$= 14 \text{ km} + 30 \text{ km} - 22 \text{ km} = 22 \text{ km}$$

- $S(K7,K12) = J(G,K7) + J(G,K12) - J(K7,K12)$
 $= 14 \text{ km} + 29 \text{ km} - 20 \text{ km} = 23 \text{ km}$
- $S(K8,K9) = J(G,K8) + J(G,K9) - J(K8,K9)$
 $= 6 \text{ km} + 25 \text{ km} - 17 \text{ km} = 14 \text{ km}$
- $S(K8,K10) = J(G,K8) + J(G,K10) - J(K8,K10)$
 $= 6 \text{ km} + 16 \text{ km} - 11 \text{ km} = 11 \text{ km}$
- $S(K8,K11) = J(G,K8) + J(G,K11) - J(K8,K11)$
 $= 6 \text{ km} + 30 \text{ km} - 26 \text{ km} = 10 \text{ km}$
- $S(K8,K12) = J(G,K8) + J(G,K12) - J(K8,K12)$
 $= 6 \text{ km} + 29 \text{ km} - 23 \text{ km} = 12 \text{ km}$
- $S(K9,K10) = J(G,K9) + J(G,K10) - J(K9,K10)$
 $= 25 \text{ km} + 16 \text{ km} - 10 \text{ km} = 31 \text{ km}$
- $S(K9,K11) = J(G,K9) + J(G,K11) - J(K9,K11)$
 $= 25 \text{ km} + 30 \text{ km} - 18 \text{ km} = 37 \text{ km}$
- $S(K9,K12) = J(G,K9) + J(G,K12) - J(K9,K12)$
 $= 25 \text{ km} + 29 \text{ km} - 15 \text{ km} = 39 \text{ km}$
- $S(K10,K11) = J(G,K10) + J(G,K11) - J(K10,K11)$
 $= 16 \text{ km} + 30 \text{ km} - 27 \text{ km} = 19 \text{ km}$
- $S(K10,K12) = J(G,K10) + J(G,K12) - J(K10,K12)$
 $= 16 \text{ km} + 29 \text{ km} - 25 \text{ km} = 20 \text{ km}$
- $S(K11,K12) = J(G,K11) + J(G,K12) - J(K11,K12)$
 $= 30 \text{ km} + 29 \text{ km} - 2 \text{ km} = 57 \text{ km}$

Lampiran 2. Stok Beras di Gudang



Lampiran 3. Proses Pengemasan Beras



Lampiran 4. Beras Siap Dikirim Kepada Para Pelanggan



Lampiran 5. Surat Izin Penelitian dari Perusahaan



UD BERKAH NIAGA PANGAN
Distributor Beras
Alamat : Desa Tenggor RT.01/RW.03, Kab. Gresik 61173
Telp : 0813 5785 6996

SURAT KETERANGAN

Dengan Hormat,

Sehubungan dengan surat dari Fakultas Teknik Universitas 17 Agustus 1945 Surabaya yang berisi tentang pemberian izin untuk melaksanakan penelitian tugas akhir kepada mahasiswa dibawah ini:

Nama : Adonis Kurniawan
Tempat/Tanggal Lahir : Surabaya, 21 September 1997
No. Induk Mahasiswa : 1411900227
Program Studi : Teknik Industri

Maka dengan surat ini, kami memberikan izin untuk melaksanakan penelitian tugas akhir di UD Berkah Niaga Pangan.

Demikian surat ini kami sampaikan, atas kerjasamanya kami ucapkan terima kasih.

Surabaya, 24 September 2024



Mohammad Nuruddin
Pemilik Usaha


Lampiran 6. Kartu Bimbingan Tugas Akhir








JURNAL BIMBINGAN TUGAS AKHIR
PRODI TEKNIK INDUSTRI
SEMESTER GASAL 2024/2025







Nama : ACHIE ALFIANAH
 NBI : M1000027

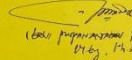
Judul Penelitian : ANALISIS PERENCANAAN PERSEDIAAN BAHAN (PENYAKIT) KELEBIHAN STOK BERAS PADA UD BERANAK NONG PAKSIAN

Dosen Pembimbing: ERNI SUPRIANTJARI, ST, M. Eng., Ph.D.



No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
1	09-05-2024	Bab 1	Revisi judul dan Perbaikan judul Pembuatan metode dan diagram Revisi latar belakang masalah	
2	13-05-2024	Bab 3	Perbaikan dan penyusunan pustakawati Revisi permasalahan dan tujuan penelitian	
3	17-05-2024	Bab 1, 2, 3	Revisi rumusan masalah dan latar belakang Revisi pustakawati	
4	20-05-2024	Bab 1	Perbaikan Bab 1 data Pendukung Pembentukan metode	
5	21-05-2024	Bab 2	Perbaikan metode dan diagram dan tujuan Rujukan	
6	27-05-2024	Bab 3	ACC hasil seminar proposal	
7	14-10-2024	Bab 2	Pembuatan teori dasar transportasi dan	

No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
			Revisi rumusan	
8	18-10-2024	Bab 2	Pembuatan teori transportasi dasar Revisi Bab 2 dan Bab 4	
9	23-10-2024	Bab 4	Pembuatan literasi pada Bab 4 akhir Revisi hasil analisis jalur hasil	
10	28-11-2024	Bab 4	Perbaikan hasil analisis pada metode EOL dan Swiss matrix	
11	10-11-2024	Bab 2	Menyempurnakan hasil dari penelitian Keimpulan dan saran	
12	21-11-2024	Bab 2	Perbaikan hasil penelitian Bab 2 Artikel	
13	03-12-2024	Artikel	ACC	

Surabaya, 7.12.2024
 Dosen Pembimbing

 (Beri Supriantjari, Ph.D., M. Eng., Ph.D.)

Lampiran 7. Lembar Revisi Seminar Proposal Tugas Akhir

UNIVERSITAS 17 AGUSTUS 1945 SURABAYA
 FAKULTAS TEKNIK
 PROGRAM STUDI TEKNIK INDUSTRI

REVISI SEMINAR PROPOSAL TUGAS AKHIR

N A M A : Adonis Kurniawan
 N B I : 1411900227
 J U D U L : ANALISIS PERENCANAAN PERSEDIAAN GUNA MENGATASI KELEBIHAN STOK BERAS PADA UD BERKAH NIAGA PANGAN
 BATAS BIMBINGAN REVISI : 1 Minggu setelah Sidang

NO	URAIAN	BAB	HALAMAN
01.	Catur Perolehan Masalah dilengkapi dengan permasalahan di UD. Perolehan	h	R/12
02.	Tinjauan Pustaka ke lengkap metode 3 cara		
03.	Flow Chartnya direvisi		

NO	URAIAN	BAB	HALAMAN
1.	Asumsi awal peramul di tulis juga	h	R/12
2.	Masori ditambah biaya transportasi untuk pengiriman barang		

Telah Direvisi,
 Dosen Penguji 1,

Dr. Jaka Purmana, ST., MT

Dosen Penguji 2,

Istantyo Yuwono, ST., MM

Surabaya, 03 Oktober 2024

Mengetahui
 Dosen Pembimbing/Ketua Penguji,

Erni Puspantantari Putri, ST., M.Eng., Ph.D

Lampiran 8. Lembar Revisi Sidang Tugas Akhir

UNIVERSITAS 17 AGUSTUS 1945 SURABAYA
 FAKULTAS TEKNIK
 PROGRAM STUDI TEKNIK INDUSTRI

REVISI SIDANG TUGAS AKHIR PRIODE SEMESTER GASAL 2024/2025

N A M A : Adonis Kurniawan
 N B I : 1411900227
 J U D U L : ANALISIS PERENCANAAN PERSEDIAAN GUNA MENGATASI KELEBIHAN STOK BERAS PADA UD BERKAH NIAGA PANGAN
 BATAS BIMBINGAN REVISI : 1 Minggu setelah Sidang

NO	URAIAN	BAB	HALAMAN
-	Perkuat lg data grafik perbandingan stok vs permintaan semua varian beras sebagai dasar kenapa pilih R/12	h	R/12
-	absorpsi max 250 kwh	h	
-	perbandingan metode kenapa pakai? CO2, sangat mahal ke min max ?	h	

NO	URAIAN	BAB	HALAMAN
1.	Asumsi 100-200 data	h	R/12
2.	Metode peramula tambah 1 metode		
3.	Tabel perbandingan pilihan 1 sudah final		
4.	Kelengkapan di perketikan		
-	Dapatkan data awal pola? menjabar tujuan		
-	Dapat jawab		

Telah Direvisi,
 Dosen Penguji 1,

Handy Febri Satoto, ST., MT.

Dosen Penguji 2,

Siti Muhiatul Khoiroh, ST., MT

Surabaya, 13 Desember 2024

Mengetahui
 Dosen Pembimbing/Ketua Penguji,

Erni Puspantantari Putri, ST., M.Eng., Ph.D