

*Ijazah / Certificate*



# Universitas Telkom

Terakreditasi / Accredited "Unggul", No.1055/SK/BAN-PT/Ak-PPJ/PT/XII/2021

Nomor / Number: 041057302012024100028

Berdasarkan Keputusan Rektor No.KR.947/AKD15/AKD-BAA/2024

Universitas Telkom menyatakan bahwa  
*Telkom University, under the decree of KR.947/AKD15/AKD-BAA/2024, hereby we declare that*



**Muhammad Rafly**

tempat & tanggal lahir: Bandung, 27 Maret 1999

*Place & Date of Birth: Bandung, 27 March 1999*

NIK (nomor induk kependudukan): 3204052703990003

*ID Number: 3204052703990003*

NIM (nomor induk mahasiswa): 1104202091

*Student Number: 1104202091*

tanggal masuk: 01 Agustus 2020

*Date of Enrollment: 01 August 2020*

program studi: Sarjana - Teknik Fisika

*Study Program: Bachelor - Engineering Physics*

Fakultas Teknik Elektro

*School of Electrical Engineering*

tanggal yudisium: 30 Agustus 2024

*Date of Completion: 30 August 2024*

telah menyelesaikan dan memenuhi seluruh persyaratan pendidikan, sehingga kepadanya diberikan ijazah ini dan gelar

*has completed and fulfilled all academic requirements, thus conferring to the above name the degree of*

***Sarjana Teknik (S.T.) dengan predikat Cum Laude***

*Sarjana Teknik (S.T.) with Honors of Cum Laude*

beserta segala hak dan kewajiban yang melekat pada gelar tersebut.

*with all the rights and responsibilities appertaining thereunto.*

Bandung, 31 Oktober 2024

*31 October 2024*

Rektor / Rector

Prof. Dr. Adiwijaya, S.Si., M.Si.



Dekan / Dean

Dr. Bambang Setia Nugroho, S.T., M.T.

FAKULTAS TEKNIK ELEKTRO  
PROGRAM STUDI S1 TEKNIK FISIKA

SCHOOL OF ELECTRICAL ENGINEERING  
BACHELOR OF ENGINEERING PHYSICS

TERAKREDITASI / ACCREDITED : SK NO. 10960/SK/BAN-PT/AK-ISK/S/IX/2021

TRANSKRIP AKADEMIK

ACADEMIC TRANSCRIPT

No Ijazah Nasional 041057302012024100028

No 0850/AKD1.15/SFTE/2024

NAMA / NAME : MUHAMMAD RAFLY

NOMOR INDUK MAHASISWA / STUDENTS ID : 1104202091

TEMPAT & TANGGAL LAHIR / PLACE & DATE OF BIRTH : BANDUNG, 27 Maret 1999 / 27 March 1999

TANGGAL MASUK / DATE OF ENROLLMENT: 01 Agustus 2020 / 01 August 2020

TANGGAL LULUS / DATE OF COMPLETION : 30 Agustus 2024 / 30 August 2024

JENJANG PENDIDIKAN / LEVEL OF EDUCATION : STRATA 1 / BACHELOR DEGREE

NO KEPUTUSAN REKTOR / NUMBER OF DECREE : KR.947/AKD15/AKD-BAA/2024

No	KODE/ CODE	MATA KULIAH	SUBJECT	SEMESTER / SEMESTER	SKS / CREDIT	NILAI / GRADE
1	TUI1E1	PRAKT. ALGORITMA DAN PEMROGRAMAN	ALGORITHM AND PROGRAMMING LAB WORKS	1	1	A
2	TUI1A1	PRAKTIKUM FISIKA 1	PHYSICS 1 LAB WORKS	1	1	A
3	UW1E1	PEMBENTUKAN KARAKTER	CHARACTER BUILDING	1	1	A
4	TF1A2	PENGENALAN TEKNIK FISIKA	INTRODUCTION TO ENGINEERING PHYSICS	1	2	AB
5	UK1B2	PENDIDIKAN PANCASILA	PANCASILA	1	2	A
6	UW1D2	LITERASI MANUSIA	HUMAN LITERACY	1	2	A
7	TUI1B3	KALKULUS 1	CALCULUS 1	1	3	BC
8	TUI1A3	FISIKA 1	PHYSICS 1	1	3	BC
9	TUI1E3	ALGORITMA DAN PEMROGRAMAN	ALGORITHM AND PROGRAMMING	1	3	B
10	TUI1F1	PRAKTIKUM FISIKA 2	PHYSICS 2 LAB WORKS	2	1	A
11	UW1A2	BAHASA INGGRIS	ENGLISH	2	2	A
12	UK1A2	PENDIDIKAN KEWARGANEGARAAN	CIVICS	2	2	A
13	UA1A2	PENDIDIKAN AGAMA ISLAM DAN ETIKA	ISLAM RELIGION AND ETHICS	2	2	A
14	TUI1G3	KALKULUS 2	CALCULUS 2	2	3	C
15	TUI1C3	KIMIA	CHEMISTRY	2	3	AB
16	TUI1H3	PENG. REKAYASA DAN DESAIN	INTRODUCTION TO ENGINEERING AND DESIGN	2	3	AB
17	TUI1F3	FISIKA 2	PHYSICS 2	2	3	AB
18	TFI2K1	PRAKTIKUM TEKNIK FISIKA 1	ENGINEERING PHYSICS LAB WORKS 1	3	1	A
19	TFI2E3	FISIKA MODERN	MODERN PHYSICS	3	3	A
20	TFI2A3	MATEMATIKA REKAYASA 1	ENGINEERING MATHEMATICS 1	3	3	A
21	TUI2A3	PROBABILITAS DAN STATISTIKA	PROBABILITY AND STATISTICS	3	3	AB
22	TFI2C3	TERMODINAMIKA TEKNIK	ENGINEERING THERMODYNAMICS	3	3	A
23	TFI2D4	RANGKAIAN LISTRIK DAN ELEKTRONIKA	ELECTRIC CIRCUITS AND ELECTRONICS	3	4	B
24	TFI2L1	PRAKTIKUM TEKNIK FISIKA 2	ENGINEERING PHYSICS LAB WORKS 2	4	1	A
25	TFJ2C3	ANALISIS TERMAL	THERMAL ANALYSIS	4	3	A
26	TFJ2D3	ELEKTROMAGNETIKA	ELECTROMAGNETICS	4	3	AB
27	TFI2I1	TEKNIK KONVERSI ENERGI	ENERGY CONVERSION TECHNIQUE	4	3	A
28	TFI2J1	MEKANIKA FLUIDA	FLUID MECHANICS	4	3	AB
29	TFI2B3	MATEMATIKA REKAYASA 2	ENGINEERING MATHEMATICS 2	4	3	AB
30	TFI2F3	ELEKTRONIKA DIGITAL	DIGITAL ELECTRONICS	4	3	AB
31	TFI2H3	GELOMBANG DAN AKUSTIKA	WAVE AND ACOUSTICS	4	3	A
32	TFI2G4	TEKNIK KOMPUTASI	COMPUTATIONAL TECHNIQUE	4	4	A
33	TFI3F1	PRAKTIKUM TEKNIK FISIKA 3	ENGINEERING PHYSICS LAB WORKS 3	5	1	A
34	TFI3E3	DINAMIKA SISTEM	SYSTEM DYNAMICS	5	3	AB
35	TFI3D3	PERPINDAHAN KALOR	HEAT TRANSFER	5	3	B
36	TFI3B3	TEKNIK PENGUKURAN	MEASUREMENT TECHNIQUE	5	3	AB
37	TFI3C3	PENGOLAHAN SINYAL	SIGNAL PROCESSING	5	3	B
38	TFI3L1	PRAKTIKUM TEKNIK FISIKA 4	ENGINEERING PHYSICS LAB WORKS 4	6	1	A
39	UW1A2	KEWIRUSAHAAN	ENTREPRENEURSHIP	6	2	A
40	TUI4A2	STUDIUM GENERAL	STUDIUM GENERALE	6	2	A

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NO KEPUTUSAN REKTOR / NUMBER OF DECREE : KR.947/AKD15/AKD-BAA/2024

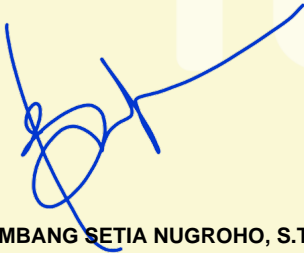
No	KODE/ CODE	MATA KULIAH	SUBJECT	SEMESTER / SEMESTER	SKS / CREDIT	NILAI / GRADE
41	TUI3A2	KERJA PRAKTEK ATAU KKN	INTERNSHIP OR SOCIAL AND COMMUNITY SERVICE	6	2	A
42	TFI3G3	FISIKA MATERIAL	MATERIAL PHYSICS	6	3	AB
43	TFI3J3	KONTROL OTOMATIK	AUTOMATIC CONTROL	6	3	AB
44	TFI3H3	TEKNIK INSTRUMENTASI	INSTUMENTATION TECHNIQUE	6	3	AB
45	TFI3I3	PEMODELAN SIMULASI	MODELLING AND SIMULATION	6	3	A
46	UKJXC2	BAHASA INDONESIA	INDONESIAN LANGUAGE	7	2	A
47	TFI4A2	KEANDALAN DAN KESELAMATAN	RELIABILITY & SAFETY	7	2	A
48	TUI3C2	EKONOMI TEKNIK	ENGINEERING ECONOMICS	7	2	A
49	TUI4B2	PROPOSAL TUGAS AKHIR	FINAL PROJECT PROPOSAL	7	2	A
50	UWJXB2	LITERASI DATA	DATA LITERACY	7	2	A
51	TFI4B3	MIKROKONTROLER & IOT	MICROCONTROLLER & IOT	7	3	A
52	TFI4D3	SISTEM KONTROL CERDAS	INTELLIGENT CONTROL SYSTEM	7	3	A
53	TFI4C3	METODE NON DESTRUCTIVE TESTING	NONDESTRUCTIVE TESTING METHODS	7	3	A
54	UPJXA3	MANAJEMEN PROYEK	PROJECT MANAGEMENT	7	3	A
55	TFI4Q3	TEKNIK TOMOGRAFI	TOMOGRAPHY TECHNIQUE	8	3	AB
56	TFI4P3	ELEKTRONIKA DAYA	POWER ELECTRONICS	8	3	A
57	TUI4G3	PROGRAM KREATIVITAS A3	CREATIVITY PROGRAM A3	8	3	A
58	TFI4L3	AUTOMASI INDUSTRI	INDUSTRIAL AUTOMATION	8	3	A
59	TUI4B4	TUGAS AKHIR	FINAL PROJECT	8	4	A

KETERANGAN NILAI / GRADE NOTICE  
A = 4 AB = 3.5 B = 3 BC = 2.5 C = 2 D = 1 E = 0

PENCAPAIAN AKADEMIK / ACADEMIC ACHIEVEMENT  
SKS (Satuan Kredit Semester) Total / Total Credits : 150 SKS / Credits  
IPK (Indeks Prestasi Kumulatif) / Grade Point Average : 3.67 (dari / out of 4,00)  
YUDISIUM / JUDICIUM  
CUMLAUDE

TUGAS AKHIR / FINAL PROJECT  
MOBILISASI ROBOT PENGANTAR MAKANAN BERBASIS SENSOR FUSION DAN DETEKSI OBJEK  
MOBILIZATION OF FOOD DELIVERY ROBOTS BASED ON SENSOR FUSION AND OBJECT DETECTION

Bandung, 31 Oktober 2024 / 31 October 2024  
Dekan / Dean



Dr. BAMBANG SETIA NUGROHO, S.T., M.T.

