4. KEGIATAN PEMBELAJARAN
SEMESTER GANJIL TAHUN AKADEMIK 2020 / 2021

Dosen	**: 1. A Rachman Soleman. Ir. MT.**	**Hari**	**: SENIN**
	: 2.Ariman, ST.MT.	**J a m**	**: 19.00 - 20.40**
Mata Kuliah	**:Instrumentasi Elektronika**	**Ruang**	**: A 6**
Kelas	: K		

NO	Tanggal	Materi Pembelajaran	Jml Mhs	Tanda Tangan Dosen
1	14-Sep-20	**Theory 1. Introduction to Electronic Instruments and Measurements.** 1.1 Understanding Current 1.2 Undertanding Voltage. 1.3 Calculate Voltage, Current, or Resistance. 1.4 Calculate Current at Any Point in a Circuit. 1.5 Calculate the Voltages Within Your Circuit.		
2	21-Sep-20	2, Resistors. These most common of electronic components are explained and recipes provided for some of their uses. 3, Capacitors and Inductors. will find recipes explaining how these components work, how to identify them, and recipes for making use of them.		
3	28-Sep-20	4, Diodes. In this chapter you will find recipes explaining diodes and uses for different types of diode including Zener diodes, photodiodes, and LEDs. 5, Transistors and Integrated Circuits. This chapter mostly contains fundamental recipes for using transistors and guides for using different types of transistors in different settings. Ics (integrated circuits) are introduced, but you will find individual recipes for ICs scattered throughout the rest of the book.		
4	5-Oct-20	6, Switches and Relays. The section ends with a look at these common but often overlooked components. 7, Power Supplies. Whatever your project, you are going to need to provide it with power. You will find recipes here for both traditional power supply designs as well as switched mode power supplies (SMPS) and more exotic high-voltage power supplies.		
5	12-Oct-20	8, Batteries. This chapter contains recipes for selecting batteries and also practical circuits for charging batteries (including LiPo batteries) and automatic battery backup. 9, Solar Power. In this chapter, you will find recipes to help you power your projects using solar panels, including providing solar power to an Arduino and Raspberry Pi		
6	19-Oct-20	10, Arduino and Raspberry Pi. Most Maker projects now include the use of a computing element like an Arduino or Raspberry Pi. These boards are introduced along with some recipes for using them to control external electronics. 11, Switching. Not to be confused with "switches," this chapter provides recipes that show you how to use transistors, electromechanical relays, and solid-state relays to turn things on and off using an Arduino or Raspberry Pi.		
7	26-Oct-20	**12, Sensors. This chapter is packed with recipes for many different types of sensor and shows you how to use them with both Arduino and Raspberry Pi.** **13, Motors. In this chapter, there are recipes for using different types of motors (DC, stepper, and servo) with both Arduino and Raspberry Pi.** There are also recipes for controlling both the speed and direction of motors.		
8	2-Nov-20	**UJIAN TENGAH SEMESTER**		**U T S**

Electronics Cookbook Practical Electronic Recipes with Arduino and Raspberry Pi

Simon Monk

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NO	Tanggal	Materi Pembelajaran	Jml Mhs	Tanda Tangan Dosen
9	9-Nov-20	**14, LEDs and Displays. In addition to recipes for controlling standard LEDs from an Arduino or Raspberry Pi, this chapter also has recipes for using high-power LEDs and various types of displays, including OLED graphical displays, addressable LED strips (NeoPixels), and LCD displays.** **15, Digital ICs. This chapter contains recipes for using those digital ICs that are still useful in your projects in spite of the advent of microcontrollers.**		
10	16-Nov-20	**16, Analog. In this chapter, you will find a collection of recipes for various useful analog designs from simple filtering to a range of oscillator and timer designs.** **17, Operational Amplifiers. Continuing with the analog theme, this chapter providesrecipes for using op-amps for various tasks from straightforward amplification to filter design, buffering, and comparators.**		
11	23-Nov-20	18, Audio. Here, you will find recipes for making sounds from an Arduino or Raspberry Pi as well as power amplifier designs (both analog and digital) and amplifying the signal from a microphone. 19, Radio Frequency. This chapter has some interesting recipes for FM transmitters and receivers as well as for sending packet data from one Arduino to another.		
12	30-Nov-20	20, Construction. This chapter contains recipes for building "unsoldered" prototypes and for making those projects into a more permanent soldered form. It also provides recipes for soldering, both through-hole and surface-mount devices. 21, Tools. The use of bench power supplies, multimeters, oscilloscopes, and the use of simulations software are all described here in a series of recipes.		
13	7-Dec-20	21.1. Use a Lab Power Supply. 21.2. Measure DC Voltage. 21.3. Measure AC Voltage. 21.4. Measure Current. 21.5. Measure Continuity. 21.6. Measure Resistance, Capacitance, or Inductance.		
14	14-Dec-20	21.7. Discharge Capacitors. 21.8. Measure High Voltages. 21.9. Use an Oscilloscope. 21.10. Use a Function Generator.		
15	21-Dec-20	21.11. Simulation. 21.12. Working Safely with High Voltages. Questions and answers, repeating lessons.		
16	25-Jan-21	**UJIAN AHIR SEMESTER**		**U A S**

Ket : Kuliah dimulai dari 01 September 2020 s/d 27 Febuari 2021

Jakarta , 01 September 2020
Kaprodi Teknik Elektro S1. FTI. ISTN.

Ir. HARLAN EFENDI. MT

A

DAFTAR NILAI

SEMESTER GANJIL REGULER TAHUN 2020/2021

Program Studi : Teknik Elektro S1
Matakuliah : Instrumentasi Elektronika
Kelas / Peserta : K
Perkuliahan : Kampus ISTN Bumi Srengseng P2K - Kelas
Dosen : H. Rachman Soleman, Ir. MT.

No	NIM	N A M A	ABSEN	TUGAS	UTS	UAS	MODEL	PRESENTASI	NA	HURUF
			0%	0%	0%	100%	0%	0%		
1	16224001	**Aldo Sapta Revo**	100	0	80	0	0	0	0	
2	19224001	**Ringga Erlangga**	100	0	80	0	0	0	0	
3	19224002	**Fauzan Agung Widyatmoko**	100	0	80	0	0	0	0	
4	19224004	**Herry Hidayat**	100	0	80	0	0	0	0	

Rekapitulasi Nilai							
A	0	B+	0	C+	0	D+	0
A-	0	B	0	C	0	D	0
		B-	0	C-	0	E	0

Jakarta, 14 November 2020

Dosen Pengajar

H. Rachman Soleman, Ir. MT.

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DAFTAR NILAI

SEMESTER GANJIL REGULER TAHUN 2020/2021

Program Studi : Teknik Elektro S1
Matakuliah : Instrumentasi Elektronika
Kelas / Peserta : K
Perkuliahan : Kampus ISTN Bumi Srengseng P2K - Kelas
Dosen : H. Rachman Soleman, Ir. MT.

No	NIM	NAMA	ABSEN 0%	TUGAS 40%	UTS 30%	UAS 30%	MODEL 0%	PRESENTASI 0%	NA	HURUF
1	16224001	**Aldo Sapta Revo**	100	100	80	85	0	0	89.5	A
2	19224001	**Ringga Erlangga**	100	0	80	0	0	0	0	
3	19224002	**Fauzan Agung Widyatmoko**	100	100	80	85	0	0	89.5	A
4	19224004	**Herry Hidayat**	100	0	80	0	0	0	0	

Rekapitulasi Nilai			
A 2	B+ 0	C+ 0	D+ 0
A- 0	B 0	C 0	D 0
	B- 0	C- 0	E 0

Jakarta 8 February 2021

Dosen Pengajar

H. Rachman Soleman, Ir. MT.