

STRUKTUR KURIKULUM PROGRAM STUDI INSTRUMENTASI DAN KONTROL 2020

SEMESTER 1

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	PNJ1301	Bahasa Indonesia	2	3	2	0	2
2	IKI1317	Matematika Teknik 1 (Engineering Mathematics 1)	2	4	2	0	2
3	IKI1315	Fisika Instrumentasi (Physic Instrumentations)	2	4	2	0	2
4	IKI1310	Gambar Teknik dan CAD (Technical Drawing and CAD)	2	4	1	1	2
5	IKI1314	Komponen Elektronika (Electronic Devices)	2	4	1	1	2
6	IKI1311	Elektronika Analog (Analog Electronics)	2	4	2	0	2
7	IKI1313	Rangkaian Listrik (Electrical Circuits)	2	4	2	0	2
8	IKI1316	Elektronika Digital (Digital Electronics)	2	4	2	0	2
9	IKI1312	Bengkel Mekanika (Mechatronic Workshop)	2	4	0	2	2
10	PNJ1302	Pendidikan Agama	2	3	2	0	2
TOTAL			20	38	16	4	20

SEMESTER 2

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	IKI2201	Matematika Teknik 2 (Engineering Mathematics 2)	2	4	2	0	2
2	IKI2202	Bahasa Inggris Teknik (Technical English)	2	3	2	0	2
3	IKI2203	Mesin-mesin Listrik (Electrical Machine)	2	4	2	0	2
4	IKI2204	Algoritma dan Pemrograman (Algorithm and Programming)	2	4	1	1	2
5	IKI2205	Praktik Elektronika Analog (Electronic Circuits Practice)	2	4	0	2	2
6	IKI2206	Praktik Rangkaian Listrik (Electrical Circuits Practice)	2	4	0	2	2
7	IKI2207	Praktik Elektronika Digital (Digital Electronics Practice)	2	4	0	2	2
8	IKI2208	Instrumentasi Elektronika (Electronics Instrumentation)	2	4	2	0	2
TOTAL			16	31	9	7	16

SEMESTER 3

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	IKI3301	Pemrograman Instrumentasi Maya Berbasis LabVIEW 1 (Virtual Instrumentation Programming Based On LabVIEW 1)	2	4	0	2	2
2	IKI3302	Pengenalan Pola Cerdas	2	4	1	1	2
3	IKI3303	Sistem Pengaturan Linier (Linear Control System)	2	4	2	0	2
4	IKI3304	Pemrograman Mikroprosesor dan Mikrokontroler (Microprocessors and Microcontrollers Programming)	2	4	0	2	2
5	IKI3305	Pemrograman PLC (PLC Programming)	2	4	0	2	2
6	IKI3306	Instrumentasi Industri (Industrial Instrumentations)	2	4	2	0	2
7	IKI3307	Praktik Instrumentasi Elektronika 1 (Electronics Instrumentation Practice 1)	2	4	0	2	2
8	IKI3308	Elektronika Daya	2	4	2	0	2
9	IKI3309	Etika Profesi dan Technopreneur	2	3	2	0	2
10	IKI3310	Pervasive Computing Industrial Control	2	3	2	0	2
TOTAL PER MINGGU			20	38	11	9	20

SEMESTER 4

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	IKI4401	Elektronika Digital Berbasis FPGA (Digital Electronics Based on FPGA)	2	4	0	2	2
2	IKI4402	Sistem Pengaturan Diskrit (Discrete Control Systems)	2	4	2	0	2
3	IKI4403	Metoda Numerik dan Statistik (Numerical Methods and Statistic)	2	4	2	0	2
4	IKI4404	Pemrosesan Sinyal Digital (Digital Signal Processing)	2	4	1	1	2
5	IKI4405	Komunikasi Data Industri (Industrial Data Communications)	2	4	1	1	2
6	IKI4406	Praktik Instrumentasi Elektronika 2 (Electronics Instrumentation Practice 2)	2	4	0	2	2
7	IKI4407	Pemrograman Instrumentasi Maya Berbasis LabVIEW 2 (Virtual Instrumentation Programming Based on LabVIEW 2)	2	4	0	2	2
8	IKI4408	Purwarupa Rangkaian Elektronika (Electronic Circuits Prototype)	2	4	0	2	2
9	IKI4409	Otomasi Industri berbasis PLC (industrial Automation Based on PLC)	2	4	0	2	2
10	IKI4410	Artificial Intelligence & Machine Learning	2	4	1	1	2
TOTAL PER MINGGU			20	40	7	13	20

SEMESTER 5

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	PNJ5501	Pancasila	2	3	2	0	2
2	IKI5502	Bahasa Inggris Teknik 2 (Technical English 2)	2	4	2	0	2
3	IKI5503	Manajemen Proyek Otomasi Industri (Industrial Automation Project Manajemen)	2	4	2	0	2
4	IKI5504	Interaksi Manusia Komputer & Rekayasa Perangkat	2	4	1	1	2
5	IKI5505	Pelacakan Kesalahan Otomasi Industri (Trouble Shooting for Industrial Automation)	2	4	0	2	2
6	IKI5506	Pemrograman Basis Data (Database Programming)	2	4	0	2	2
7	IKI5507	Otomasi Industri Berbasis DCS dan SCADA (Industrial Automation Based on DCS and SCADA)	2	4	0	2	2
8	IKI5508	Praktik Elektronika Digital Berbasis PLD dan FPGA (Digital Electronics Based on PLD and FPGA Practice)	2	4	0	2	2
9	IKI5509	Desain Sistem Otomasi Pengukuran Berbasis LabVIEW (Design Automated Measurement System Based on LabVIEW)	2	4	0	2	2
TOTAL PER MINGGU					7	11	18

SEMESTER 6

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	IKI6601	Sistem Embedded Berbasis Mikrokontroler dan Real-Time FPGA (Embedded System Based on Microcontroller and Real-Time FPGA)	3	6	0	3	3
2	IKI6602	Desain Sistem Otomasi Proses berbasis Komputer	3	6	0	3	3
3	IKI6603	Robot Cerdas	2	4	0	2	2
4	IKI6604	Praktik Rekayasa Kontrol Proses (Process Control Engineering Practice)	2	4	0	2	2
5	IKI6605	Metode Penelitian	2	4	2	0	2
6	IKI6606	Purwarupa <i>Internet of Things and Clouds</i>	2	4	0	2	2
7	IKI6607	Sistem Kontrol <i>Adaptive</i> & Kecerdasan Buatan	2	4	1	1	2
8	IKI6608	Energi Terbarukan dan Teknologi Ramah Lingkungan	2	4	2	0	2
9	PNJ6609	Pendidikan Kewarganegaraan	2	2	2	0	2
		TOTAL PER MINGGU	20	38	7	13	20

SEMESTER 7

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
		MAGANG INDUSTRI (MBKM)					
		Hard Skill					
1	IKI7701	Engineering Commisioning	2	4		2	2
2	IKI7702	Desain Instrumentasi Panel	2	4		2	2
3	IKI7703	Manajemen Pemeliharaan Sistem Otomasi Industri (<i>Industrial Automation System Maintenance Management</i>)	2	4		2	2
4	IKI7704	Teknik Perawatan dan Perbaikan (Maintenance and Repair Techniques)	2	4		2	2
5	IKI7705	Keselamatan, Kesehatan Kerja dan Lingkungan (Occupational Health and Environmental Safety)	2	4		2	2
6	IKI7706	Manajemen Proyek (Project Management)	2	4		2	2
		Soft Skill					
7	IKI7706	Berpikir kritis dan kreatif (Critical and Creative Thinking)	2	4		2	2
8	IKI7707	Membangun Relasi Komunikasi (Networking)	2	4		2	2
9	IKI7709	Kepemimpinan (Leadership)	2	4		2	2
10	IKI77010	Laporan Magang Industri	2	4		2	2
		TOTAL PER MINGGU	20	40	0	20	20

SEMESTER 8

NO	KODE MK	MATA KULIAH/SUBJECT	SKS	JAM	SKS		
					TEORI	PRAKTIK	TOTAL
1	IKI8801	Program Pilihan MBKM	4	8	0	4	4
		Project Independent					
		MK di luar Prodi					
2	IKI8802	Skripsi /Bachelor Thesis	6	12		6	6
		TOTAL PER MINGGU			0	10	10