Course Code	TKIT163103
Course Name	Interfaces and Peripherals
Course Instructors	Dani Adhipta
Course Type	Required
Course Classification	Engineering Topics
Credit / Contact Hour per Week	2 / 100 minutes per Week
Course Description	This course deals with trends, theories and concepts, the implementation along with the utilization of peripheral devices and interfaces in information technology. The working principle of input and output (Input / Output, I / O) and electronic hardware are discussed in class
Prerequisites Courses	-
Covered Student Outcome	**Development of Engineering Solution (b)** **Engineering Design (c)** **Modern Tools Utilization (e)**

Learning Outcome	1. Students are able to understand the latest trends and development of interface and peripheral technologies 2. Students are able to identify peripheral devices and peripheral functions and computer interface devices 3. Students are able to design simple peripheral devices and their interfaces 4. Students understand the strategy of utilizing peripheral devices and their interfaces in business
Topic	1. Introduction (trend) Interfaces and Peripherals 2. Definitions, examples, and Standard interfaces 3. Types of interfaces and peripherals 4. Modern computer architecture in general 5. Parallel / serial, synchronous / asynchronous data communications 6. Concepts and theories of interfaces and peripherals 7. Timing and buffering 8. Hardware I / O electronics, bus type 9. Utilization in business
Direct Asessment	
Indirect Assesment	Questionnaire and direct communication
References	1. Computer System Architecture 2. SPI Microcontroller Manual Technical Book (Intel, Atmel, dll) 3. I2C standard manual guide

Direct Asessment Plan	**Measured Learning Outcome**
Mid Exam	LO1, LO2
Final Exam	LO3, LO4
Homework	
Presentation	