

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												
		Study Program Student Outcome										
No	Learning Outcome	SO (a) – SO (k)										
1.	Students are able to understand the latest trends and development of interface and peripheral technologies	Development of Engineering Solution (b)										
2.	Students are able to identify peripheral devices and peripheral functions and computer interface devices	Modern Tools Utilization (e)										
3.	Students are able to design simple peripheral devices and their interfaces	Engineering Design										
4.	Students understand the strategy of utilizing peripheral devices and their interfaces in business	Development of Engineering Solution (b)										
Topic	<ol style="list-style-type: none"> 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 Assessment	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Mid Exam</td> <td>LO1, LO2</td> </tr> <tr> <td>Final Exam</td> <td>LO3, LO4</td> </tr> <tr> <td>Homework</td> <td></td> </tr> <tr> <td>Presentation</td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Mid Exam	LO1, LO2	Final Exam	LO3, LO4	Homework		Presentation	
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	Mid Exam	LO1, LO2										
	Final Exam	LO3, LO4										
	Homework											
Presentation												
Indirect Assessment	Questionnaire and direct communication											
References	<ol style="list-style-type: none"> 1. Computer System Architecture 2. SPI Microcontroller Manual Technical Book (Intel, Atmel, dll) 3. I2C standard manual guide 											