

Course Code	TKIE162102P											
Course Name	Signals and System Lab Work											
Course Instructors	Indah Soesanti											
Course Type	Required											
Course Classification	Engineering Topics											
Credit / Contact Hour per Week	1 /50 minutes per Week											
Course Description	This lab work goal is to improve the understanding of student on fundamental signal and system theory, for example convolution, ODE, frequency response, LTI system, and Discrete Time-based System											
Prerequisites Courses	TKIE162102 - Signal and System											
<b>Covered Student Outcome</b>	<b>Development of Engineering Solution (b)</b> <b>Multidisciplinary Teamwork (h)</b> <b>Sustainable Learning (k)</b>											
<b>Learning Outcome</b>												
		Study Program Student Outcome										
No	Learning Outcome	SO (a) – SO (k)										
1.	Student able to implement and solve case study related to convolution, ODE and frequency response	Development of Engineering Solution										
2.	Student able to design a LTI system that meet certain performance criteria, such as time response, settling time.	Sustainable learning										
3.	Student able to collaborate with others to implement and solve given problem case	Multidisciplinary Teamwork										
Topic	<ol style="list-style-type: none"> <li>1. Convolution</li> <li>2. Ordinary Differential Equation</li> <li>3. Frequency Response of Continuous LTI System Time</li> <li>4. Discrete Time System</li> </ol>											
<b>Direct Assessment</b>	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Weekly Lab Report</td> <td>LO1, LO2</td> </tr> <tr> <td>Lab Activity</td> <td>LO3</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Weekly Lab Report	LO1, LO2	Lab Activity	LO3				
Direct Assessment Plan	Measured Learning Outcome											
Weekly Lab Report	LO1, LO2											
Lab Activity	LO3											
Indirect Assesment	Questionnaire and direct communication											
References	[1] Oppenheim, Allan V.; Willsky, Ian, 1987, Signals and Systems, New Delhi, Prentice Hall of India [2] Kamen, Edward W. ; Heck, Bonnie S., 1997, Fundamentals of Signals and systems using Matlab, New Jersey, Printice Hall											