



**MODULE HANDBOOK DESCRIPTION**

Module designation	Digital Signal Processing Laboratory	
Code	<b>FBB3209</b>	
Semester(s) in which the module is taught	6 / third year.	
Person responsible for the module	Budi Darmawan, ST., M.Eng.	
Language	Indonesian.	
Relation to curriculum	Concentration Elective for Electronics Engineering.	
Teaching methods	Contextual Instruction (CI).	
Workload (incl. contact hours, self-study hours)	<p>Contact minutes every week, each week of the 16 weeks/semester :</p> <ul style="list-style-type: none"> <li>• Practice : 1 x 50 minutes</li> <li>• Data analysis : 1 x 60 minutes</li> <li>• Writing report: 1 x 60 minutes.</li> </ul> <p>Total study hours = 2 hours 50 minutes/week</p>	
Credit points	1 (~ 1,6 ECTS)	
Required and recommended prerequisites for joining the module	- Digital Signal Processing (FBB3208)	
Module objectives/intended learning outcomes	1. Students are able to analyze Statistics and Probability of Signals, Discrete Time Signals, Operation and Analysis of Real Time Systems in Time Space, Operation and Analysis of Discrete Time Systems in Frequency Space, and several Digital Signal Processing Applications.	PLO3,
	2. Students are able to make programs on Statistics and Signal Probability, Discrete Time Signals, Operation and Analysis of Real Time Systems in Time Space, Operation and Analysis of Discrete Time Systems in Frequency Space, and several Digital Signal Processing Applications.	PLO4

	3. Students are able to compare the analysis results of Statistics and Signal Probability, Discrete Time Signals, Operation and Analysis of Real Time Systems in Time Space, Operation and Analysis of Discrete Time Systems in Frequency Space, and several Digital Signal Processing Applications with the experimental results and make conclusions and report the results.	PLO5
Content	<ol style="list-style-type: none"> <li>1. Statistics and Probability of Signals</li> <li>2. Discrete Time Signals</li> <li>3. Operation and Analysis of Real Time Systems in Time Space</li> <li>4. Operation and Analysis of Discrete Time Systems in Frequency Space</li> <li>5. Digital Signal Processing Applications</li> </ol>	
Examination forms	<ol style="list-style-type: none"> <li>1. Pre-test</li> <li>2. Practice skills</li> <li>3. Practice report</li> <li>4. Response</li> </ol>	
Study and examination requirements	<p>The final grade in the module is composed of:</p> <ol style="list-style-type: none"> <li>1. Pre-test and practice skills = 50%</li> <li>2. Practice report and response = 50%</li> </ol> <p>Students must have a final grade of 65% or higher to pass</p>	
Reading list	<ol style="list-style-type: none"> <li>1. Schilling, R.J., and Harris, S.L. (2012). "Instructor Solution Manual - Fundamentals of Digital Signal Processing Using MATLAB 2<sup>nd</sup> ed", Cengage Learning.</li> <li>2. Kuc, R. (2008). "Introduction to Digital Signal Processing". BS Publications.</li> <li>3. Quinquis, A. (2008). "Digital Signal Processing Using Matlab". John Wiley &amp; Sons, Inc.</li> </ol>	