



## UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Computer Science and Electronics

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### Bachelor in Electronics and Instrumentation

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### MODULE HANDBOOK

Module name	<b>Experiment of Sensor System</b>														
Module level	Undergraduate														
Code	MII-2307														
Courses (if applicable)	Experiment of Sensor System														
Semester	Fall (Odd)														
Contact person	Dr. techn Aufaclav Zatu Kusuma Frisky, S.Si, M.Sc.														
Lecturer	Dr. techn Aufaclav Zatu Kusuma Frisky, S.Si, M.Sc.														
Language	Bahasa Indonesia and English														
Relation to curriculum	1. Undergraduate degree program, compulsory, 2th semester. 2. International undergraduate program, compulsory, 2th semester.														
Type of teaching, contact hours	1. Undergraduate degree program: experiments < 80 students, 2. International undergraduate program: experiments, < 30 students.														
Workload	1. Experiments: 2 x 50 = 100 minutes per week. 2. Exercises and Assignments: 2 x 50 = 100 minutes per week. 3. Private study: 2 x 50 = 100 minutes per week.														
Credit points	1 credit points (sks).														
Requirements according to the Examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.														
Recommended prerequisites	-														
Learning outcomes (course outcomes) and their corresponding PLOs	<p>After completing this module, a student is expected to:</p> <p>CO1 Students are able to understand basic concepts, calibration, sensor signal processing and characteristics of sensor systems</p> <p>CO2 Students are able to analyze, design and apply the basic concepts of sensor systems</p> <p>CO3 Students are able to solve problems and design a sensor system in a process in everyday environments and in industry with a professional attitude</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>PLO</th> <th>CO1</th> <th>CO2</th> <th>CO3</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Program Learning</td> <td>PLO1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PLO2</td> <td>√</td> <td></td> <td></td> </tr> </tbody> </table>		PLO	CO1	CO2	CO3	Program Learning	PLO1				PLO2	√		
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Study and examination requirements and forms of examination	<p>The evaluation is done in 3 forms, namely:</p> <ol style="list-style-type: none"> <li>1. Pre-test, test before the course begin</li> <li>2. Ten task each weeks including final report.</li> <li>3. Two final exams, Case study exam and final exam</li> </ol> <p>Assessment is done using benchmark assessment, with the aim of measuring the level of student understanding related to the target and class rank.</p>																																			
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Reading List	<p>[1] Jon Wilson, Sensor Technology Handbook, Newnes, 2005.  [2] I. R. Sinclair, Sensor and Transducers, Newnes, 2001  [3] J. Fraden, Handbook of Modern Sensors, Springer International Publishing Switzerland 2016</p>																																			