

Course Code	TKEE165211													
Course Name	Electronic Control Technology of Power System													
Course Instructors	Tiyono; Harnoko													
Course Type	Elective													
Course Classification	Engineering Topics													
Credit / Contact Hour per Week	3 / 150 minutes per Week													
Course Description	Provides knowledge and technical understanding about solving various problems of control systems in the field of power systems in the real world along with market demands.													
Prerequisites Courses	-													
Covered Student Outcome	<b>Fundamental and Engineering Knowledge (a)</b> <b>Modern Tools Utilization ( e )</b>													
Learning Outcome	<ol style="list-style-type: none"> <li>1. Students are able to identify the concepts, types and standards of the Electronic Control Technology of Power System.</li> <li>2. Students are able to identify the type, construction, and principle of the main equipment on the Electronic Control Technology of Power System..</li> <li>3. Students are able to analyze calculations for distribution system design and installation of Electronic Control Technology of Power System equipment.</li> <li>4. Students are able to make Electronic Control Technology of Power System planning.</li> </ol>													
Topic	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Various Logic I &amp; II</li> <li>3. Various Transducer I&amp;II</li> <li>4. Various Comparator / OP AMP</li> <li>5. Various Actuator</li> <li>6. Applied Control</li> <li>7. Example of Applied Control</li> <li>8. Static Switch of Power System</li> <li>9. Control Circuit</li> <li>10. Microprocessor Application</li> <li>11. Microcontroller Application</li> </ol>													
Direct Asessment	<table border="1"> <thead> <tr> <th>Direct Asessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Homework</td> <td>LO1,LO3</td> </tr> <tr> <td>Group Assignment</td> <td>LO4</td> </tr> <tr> <td>Mid Exam</td> <td>LO1,LO2</td> </tr> <tr> <td>Final Exam</td> <td>LO3,LO4</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Asessment Plan	Measured Learning Outcome	Homework	LO1,LO3	Group Assignment	LO4	Mid Exam	LO1,LO2	Final Exam	LO3,LO4		
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Homework	LO1,LO3													
Group Assignment	LO4													
Mid Exam	LO1,LO2													
Final Exam	LO3,LO4													
Indirect Assesment	Questionnaire (EDOM)													
References	<p>[1] Kissel, T.E, 1997, Industrial Electronics, 1 ed, Simon &amp; Schuster, Ingapore</p> <p>[2] Barney, G.C, 1988, Intelligent Instrumentation Microprocessor Applications in Measurement and Control, 2 nd ed, Prentice-Hall, Inc, New York.</p> <p>[3] Losee Rex, McIntyre, 1991, Industrial Motor control fundamentals, 4 th ed, McGraw Hill Publishing Co, Singapure.</p> <p>[4] Stiffer A. K.,1992, Design with Microprocessor For Mechanical Engineers, Int' ed., Mc Graw-Hill International Edition, New York.</p> <p>[5] Nashelsky, K, Boylestad R., 1982, Electronic Device and Circuit Theory, 3ed, Bab 11-16, Prentice-Hall, Inc, Englewood Cliffs, New Jersey.</p> <p>[6] Lander, C.W., 1993, Power Electronics, 3 ed, McGraw-Hill Int. Ed., Thomson Press (India), New Delhi)</p>													