

Course Code	TKEE165166													
Course Name	Energy Management													
Course Instructors	Tumiran, Yusuf Susilo Wijoyo, Avrin Nur Widiastuti													
Course Type	Elective													
Course Classification	Engineering Topics													
Credit / Contact Hour per Week	3 / 150 minutes per Week													
Course Description	Understanding energy management concepts, models of energy management systems and their implementation.													
Prerequisites Courses	-													
Covered Student Outcome	Development of Engineering Solution (b) Engineering Design (c)													
Learning Outcome	<ol style="list-style-type: none"> 1. Understand the concept of an energy management system model. 2. Able to do energi planning for building and industry. 3. Able to conduct an energy audit planning and analysis of the results. 4. Able to design the concept of energy management monitoring. 													
Topic	<ol style="list-style-type: none"> 1. System model of energy management 2. Energy planning for building and industries 3. Energy audit and its analyses 4. Energy monitoring design 5. Engineering-Economic analysis for energy management 6. Energy management policies 7. Current energy management implementation overview 													
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,LO2</td> </tr> <tr> <td>Group Assignment</td> <td>LO2,LO3,LO4</td> </tr> <tr> <td>Mid Exam</td> <td>LO1,LO2,LO3</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,LO2	Group Assignment	LO2,LO3,LO4	Mid Exam	LO1,LO2,LO3	Final Exam	LO3,LO4		
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Indirect Assesment	Questionnaire (EDOM)													
References	<p>[1] Beng, G.H. dan Tjing, L.T., 1995, Energy Management Systems, PLN Education and Training Centre, Jakarta</p> <p>[2] Kirchmayer, L. K., Economic Operation of Power System, John Willey and Son, New York.</p> <p>[3] Smith, C.B., Efficient Electricity Use, Pergannon Press. Inc., New York.</p> <p>[4] Wang, X., 1996, Modern Power System Planning.</p>													