

Course Code	TKIE162201P													
Course Name	Electromagnetic Field Lab Work													
Course Instructors	Budi Setiyanto													
Course Type	Required													
Course Classification	Engineering Topics													
Credit / Contact Hour per Week	1 / 150 minutes per Week													
Course Description	In this Lab Work, the students learn about the magnetic distribution, distribution of electric field intensity, distribution of electric potential intensity, the response of coaxial cables to various input signals, wave propagations, and digital television systems													
Prerequisites Courses														
Covered Student Outcome	Development of Engineering Solution (b) Data and Experiment (d) Modern Tools Utilization (e) Multidisciplinary Teamwork (h)													
Learning Outcome														
		Study Program Student Outcome												
No	Learning Outcome	SO (a) – SO (k)												
1.	Students are able to explain the magnetic distribution produced by magnetic circuit	Modern Tools Utilization (e)												
2.	Students are able to explain the distribution of electric field intensity produced by magnetic circuit	Modern Tools Utilization (e)												
3.	Students are able to explain the distribution of electric potential intensity produced by magnetic circuit	Modern Tools Utilization (e)												
4.	Students are able to explain the response of coaxial cables to various input signals	Data & Experiment												
5	Students are able to explain the impact of attenuation, reflection, scattering, on the propagating wave produced by radiating antennas	Multidisciplinary Teamwork (h)												
6	Students are able to explain general concepts in digital television systems including the impact of antenna orientation on the quality of the receive signals	Development of Engineering Solution (b)												
Topic	<ol style="list-style-type: none"> 1. Magnetic circuit 2. Powerful Electric Field 3. Potential Electricity 4. Cable Characteristic 5. Radio Wave Propagation 6. Digital Television System 													
Direct Assessment	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Lab Work Report</td> <td>LO1 LO2 LO3 LO4 LO5 LO6</td> </tr> <tr> <td>Pretest</td> <td>LO1 LO2 LO3 LO4 LO5 LO6</td> </tr> <tr> <td>Post Test</td> <td>LO1 LO2 LO3 LO4 LO5 LO6</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Lab Work Report	LO1 LO2 LO3 LO4 LO5 LO6	Pretest	LO1 LO2 LO3 LO4 LO5 LO6	Post Test	LO1 LO2 LO3 LO4 LO5 LO6				
Direct Assessment Plan	Measured Learning Outcome													
Lab Work Report	LO1 LO2 LO3 LO4 LO5 LO6													
Pretest	LO1 LO2 LO3 LO4 LO5 LO6													
Post Test	LO1 LO2 LO3 LO4 LO5 LO6													
Indirect Assesment	Questionnaire (EDOM)													
References	<ol style="list-style-type: none"> [1] B. Setiyanto, 2010, Dasar-dasar Telekomunikasi, Sakti [2] D. Halliday, 2013, Fundamental of Physics, Wiley 													

