Course Code	TKEE163112
Course Name	Electrical Transmission and Substations
Course Instructors	Tiyono,
Course Type	Selected Elective
Course Classification	Engineering Topics
Credit / Contact Hour per Week	3 / 150 minutes per Week
Course Description	In this course we studied the main device of electric power transmission system and transmission channel performance analysis, as well as main component of substation. These subjects cover the general characteristics of power transmission lines, transmission line main equipment, inductance and transmission line capacitance, common constants, voltage regulation and channel efficiency calculations, pie charts, compensation, corona phenomena, current carrying capacity, main components, Supporting components, mechanical structures, insulators, lay outs, planning substations.
Prerequisites Courses	-
Covered Student Outcome	**Development of Engineering Solution (b)** **Engineering Design (c)** **Modern Tools Utilization (e)**

Learning Outcome	1. Students are able to understands the electrical transmission channel and electrical substation 2. Students are able to calculate the performance metric of electrical transmission channel
Topic	1. Definition and scope of Transmission or GI 2. Understanding Components 3. Rating and calculation 4. Implementation 5. Design lay out GI and SLD
Direct Asessment	

Direct Asessment Plan	**Measured Learning Outcome**
Assignment	LO1, LO2
Mid Exam	LO1
Final Exam	LO2

Indirect Assesment	Questionnaire (EDOM)
References	[1] Bab 9 Transmission Lines [2] Desphande, 1990, Electrical Power System Design, Tata McGraw-Hill [3] Walter L Weeks, 1981. Transmission and didtribution of Electrical Energy, Harper and Row Publisher, New York