Lab Session 5
(26-29 Feb. 2024)

Objectives:

On Simulink, perform the following activities:

[A] Connect a linear transformer to an ac source. In addition, connect the ammeter, voltmeter and power meter to measure and perform an open circuit test. With the measured values of V_{OC}, I_{OC} and P_{OC}, determine

(1) Core Resistance R_C.

(2) Ractance corresponds to the magnetization of the core X_M.

[B] With the set-up in [A], perform a short circuit test. With the measured values of V_{SC}, I_{SC} and P_{SC}, determine

(1) Equivalent series resistance of the windings referred to the primary.

(2) Equivalent series reactance of the windings referred to the primary.

[C] Estimate the value of resistance and reactance of the primary and secondary windings respectively, *i.e.*, R_P, X_P, R_S, X_S.