

Lab 08: Synchronous Generator

Objective:

Create and execute a Matlab Program that models the Synchronous Generator operating alone.

Reference: Book: S. J. Chapman; Chapter 5; Section 5.8, Page 288-299.

Refer to example problem 5-3 (page-294-298)

Plot the terminal characteristics (terminal voltage with varying line current) of the synchronous generator as its armature current varies from no-load to full-load at the power factor of

(a) $p.f.$ (lagging) = 0.2, 0.4, 0.6 and 0.8

(b) $p.f.$ (leading) = 0.2, 0.4, 0.6 and 0.8