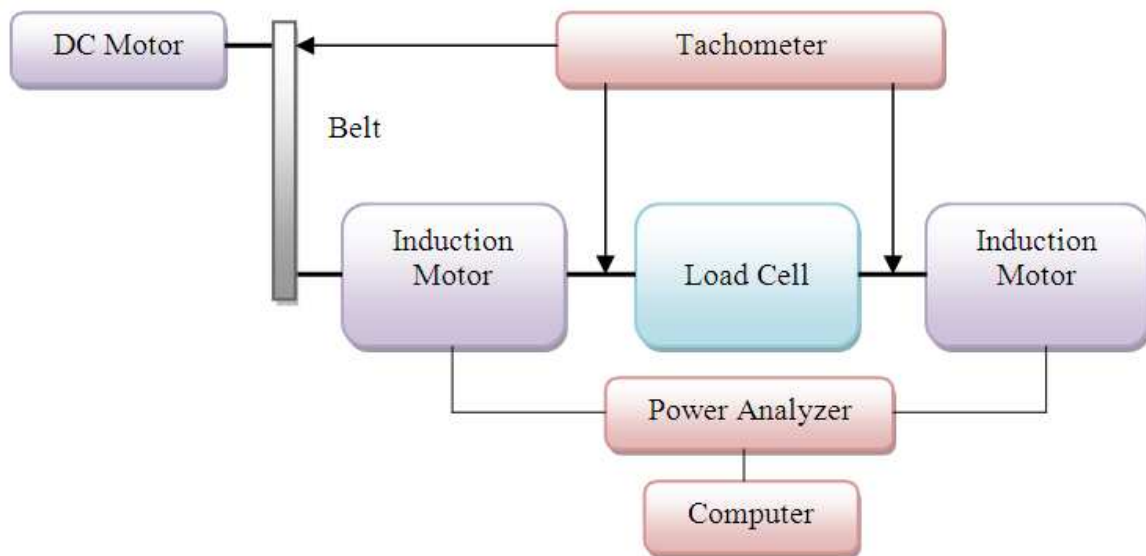


Experiment on Induction Machines

Objectives:

This experiment demonstrates the performance of a squirrel-cage induction motor/generator under various loads: no-load, 25%, 50%, 75%, and 100% load.

Set Up:



Test Results for the Motor:

Motor	No-load	25%	50%	75%	100%
Volt					
Current					
Power					
Power Factor					
VARs					
Apparent Power					

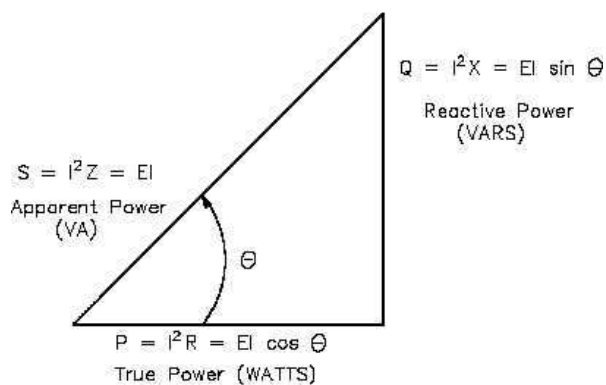
1. Does the power factor change with different load values? Explain

Test Results for the Generator:

Set one induction motor as a generator and complete the test as required in the following table.

Generator	No-load	25%	50%	75%	100%
Volt					
Current					
Power					
Power Factor					
VARs					
Apparent Power					

1. Other than power (watts), are the test results same as those obtained from the motor? Explain.
2. For each load recorded for the motor and generator produce a power triangle, a total of ten power triangle may be generated.



3. What makes the induction machine operates in motor or generator mode? Explain