Somaiya Vidyavihar University
K. J. Somaiya College of Engineering, Mumbai -77
(A Constituent College of Somaiya Vidyavihar University)

F Y B Tech SEM I 2021-22
Engineering Physics Lab Course

Experiment No.: 10
Title: Van De Graaff Generator

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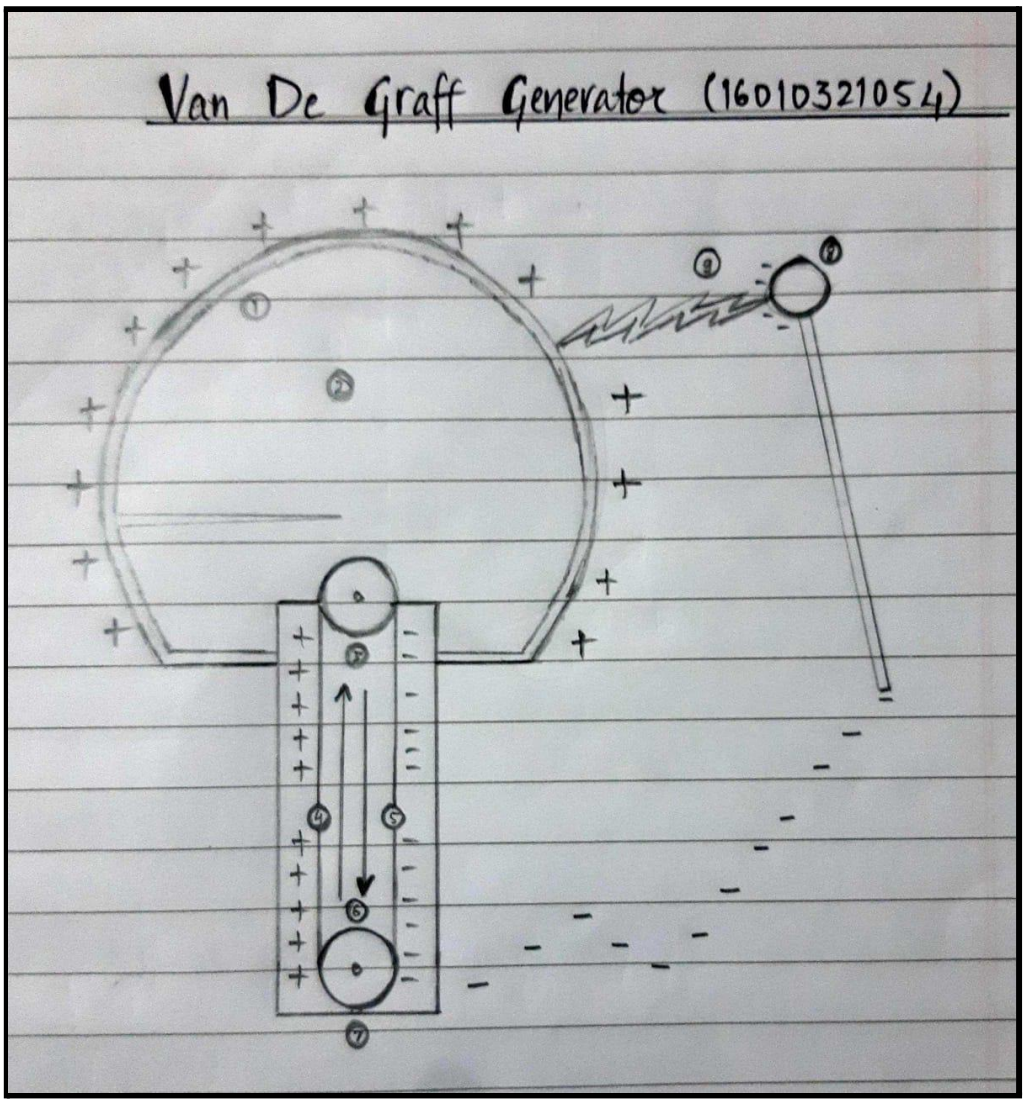
Aim: To understand the functioning of a Van De Graaff generator along with observing the changes in the experiment with change in temperature.

Apparatus: Motor, belt, two rollers, two brushes that touch the rollers, large metal sphere

Diagram:

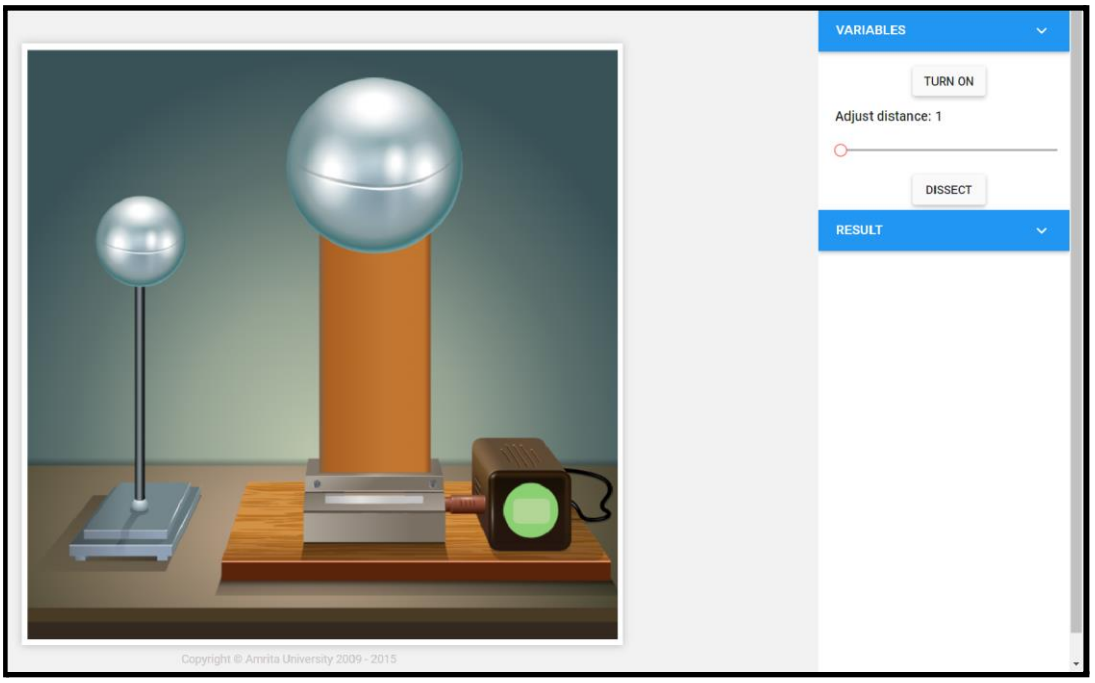


Observation Table:

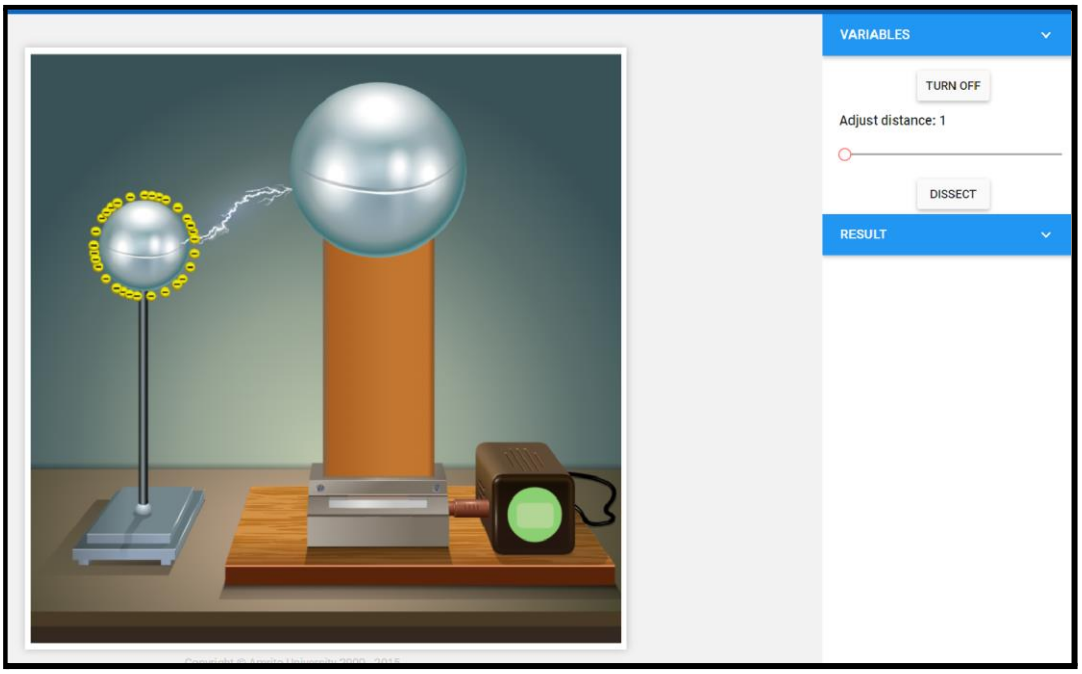
Sr. No.	Distance between the 2 metal spheres (in cm)	Time taken for the current flow between the 2 spheres (in sec)
1	1	1.54
2	2	2.69
3	3	4.03
4	4	5.06
5	5	5.85

Screenshot of an experimental set up:

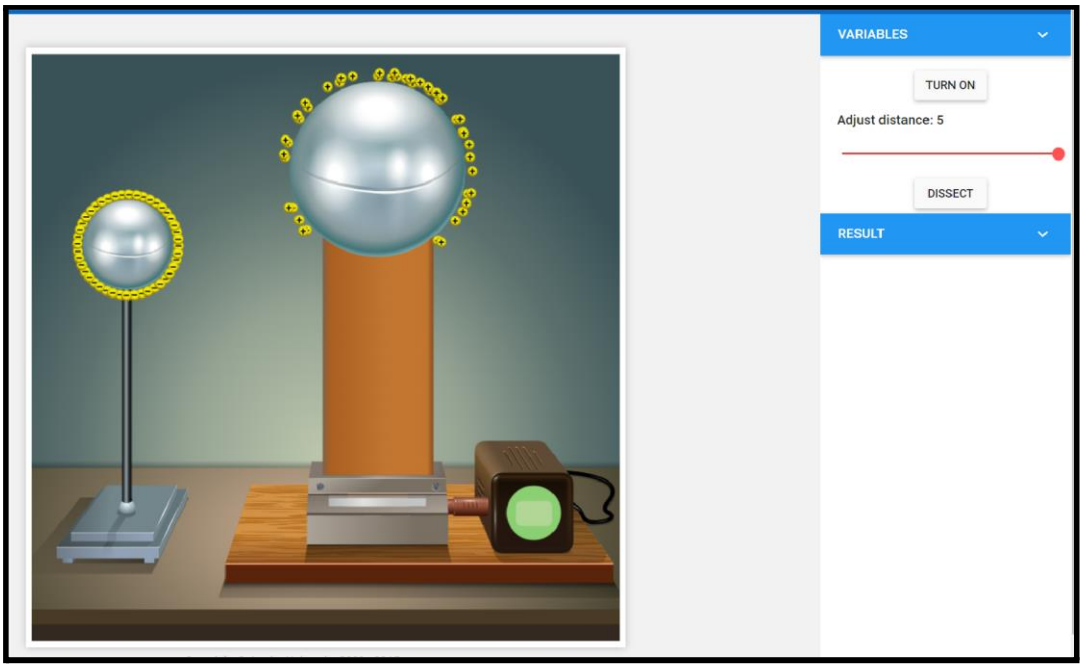
1) When the generator is not started:



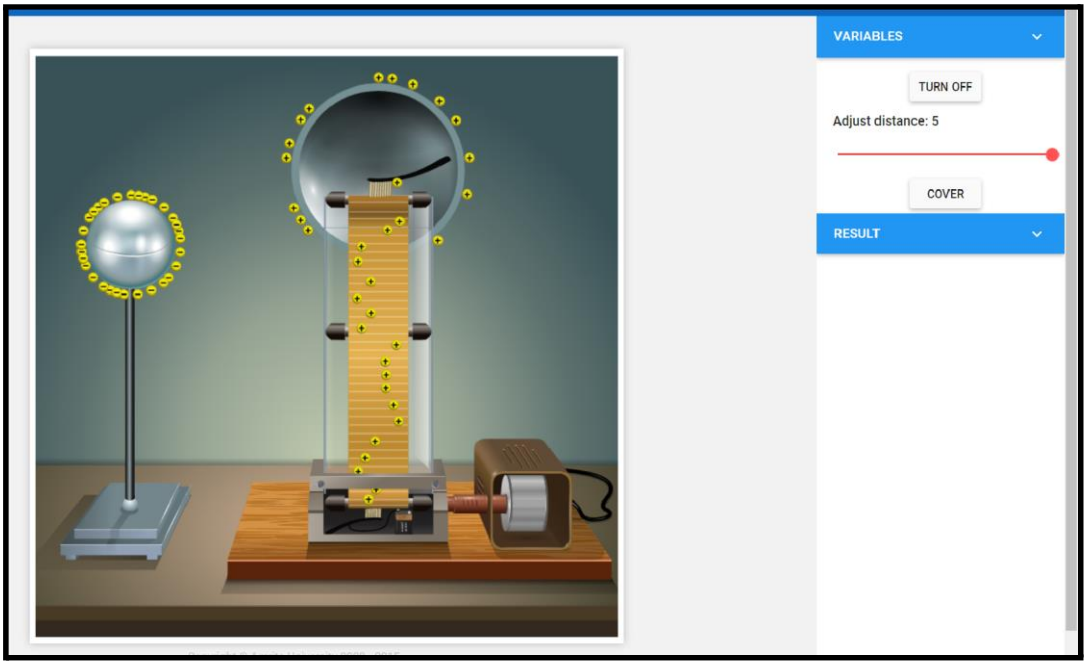
2) After supplying power and turning it on:



3) When distance is changed:



4) Dissected view of the generator:



Results and conclusion:

1) From the above experiment we get the idea of a Van De Graaff generator along with its working mechanism with the help of the diagrams.
2) From the above observation table we also get that as the distance between the metal spheres increases, the time taken for current passage between the spheres also increases.
3) From this we conclude that as the distance increases the charge collected on the surface also goes on increasing to enable the current jump from one sphere to another.