

DEVELOPMENT OF HIGH VOLTAGE PULSE GENERATOR USING SOLID STATE DEVICES

**This is presented to fulfill the requirements of Advanced Diploma In Electrical
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In the Name of ALLAH

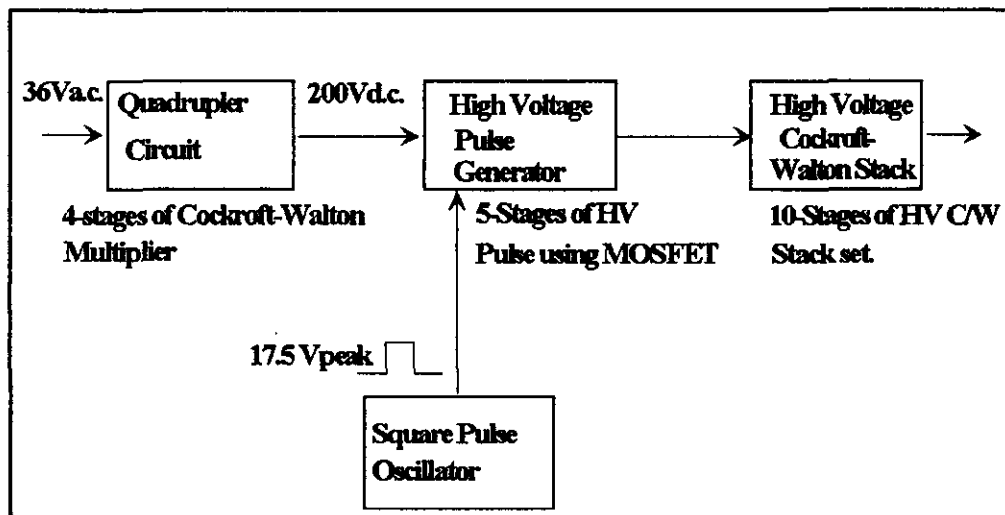
One step I advanced in the study of Electrical Engineering, it mean a thousand million time I will bestowed upon ALLAH. Because the studies of Engineering and science is a studies of ALLAH GREATNESS AND ALMIGHTY, which was already ever created according to the theories and law ALLAH want it. Deep in my heart, this achievement is very much more smaller than a size of an atom particle. With this realization, I pray to ALLAH will my IMAN be much stronger and firmer. And will bad behavior such as arrogant, egocentric, sadistic, being kept away from me in my service toward ALMIGHTY ALLAH.

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ABSTRACT

The development of the **HIGH VOLTAGE PULSE GENERATOR USING SOLID STATE DEVICES, INCORPORATED WITH COCKROFT WALTON STACK.**



Project Target

To adopt a design philosophy that will produce a practical circuit and hence to develop an equipment that will produce high voltage pulses. The components to be used are solid-state devices and the circuits are electronically operational.

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1.0 INTRODUCTION

Engineering application that uses high voltage d.c. in the form of pure d.c., impulse, pulse, etc. have experienced technological advancement. The fields in high voltage engineering are such, Laser Engineering, X-Ray Radiography, Nuclear Particle Accelerator and Diagnostic System. Scientific and technological advancement scenario, had tremendously let engineers, physicists and researchers discovered much improved design version and new findings that makes HV equipment more sophisticated, reliable and very high efficiency.

When mentioning 'high voltage engineering', specifically the high voltage d.c. (HVDC) and High Voltage Pulse Generators (HVPG) are the most that gain the interest of researcher today. In the past High Voltage Pulse Generators are used in laboratory testing for transformer, switchgear, bushing, cables, capacitor and etc. Quite extensively it application in Laser and Nuclear Engineering that inspired the use of solid state devices. By using the solid state device, the reduction of cost, size and increased in efficiency of HV equipment can be achieved. The Research and Higher Learning Institutions nowadays carried out the Analysis and Simulation Of High Voltage Pulse Generator Using Solid State Devices.

This project report covers the details of the issue.
