

## ABSTRACT

Theoretical Investigation into Variable Valve Timing of a Camless Four Stroke  
Spark Ignition Reciprocating Piston Engine

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A simplified model of an electrohydraulic valve actuation system is proposed to replace the conventional valve operating mechanism of a reciprocating piston engine. The performance characteristic of this mechanism is estimated and a single cylinder prototype design is presented. The resulting design consisted of components that were either readily available or relatively easy to manufacture, whilst keeping within a limited budget. The result from this study is expected to be used in developing a teaching and demonstration model for use at the University of the West Indies.

**Keywords:** Camless engine, Electrohydraulic valve actuation, Internal Combustion engine, Variable valve Timing.