## **Abstract**

In many control applications it is necessary to produce an output after a specific time delay, which is difficult to do it using software delay loops. It is more efficient to build a logical circuit that can generate that time delay and connect it with the process.

The INTEL PTM 8254 provides a solution to many timing and counting needs required in PC interfacing. By building the 8254 circuit, one can have a very powerful, flexible and high resolution timer. In this research the INTEL 8254 timer will be used to provide a time delay, by constructing a circuit that can be able to interface with the computer.

Software will be written to configure the INTEL PTM 8254 to match the requirement and programme one of the counters for the desired delay, and check the circuit output. The built card can be used in the plant after programming it for the desired mode of operation.

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