

<b>Thesis Title</b>	Temperature Control in Oven with Integral – Cycle Binary Rate Modulation Technique
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### **ABSTRACT**

This paper presents the constant temperature controlled of the oven by using the mixed 4 bit binary rate with ac voltage from ac line. The transmitted signal is modulated with a signal from microcontroller MCS-51. The operating system is digital PI with proportional integral mode. The measured temperature from thermocouple will be compared with the setting temperature. The result is phase difference of ac line signal, it will be used as firing to produce the ac signal and pass to the driver circuit for generating heat in oven. This system determines the time response from the process model, controller, algorithm of binary rate the effect controlling than 5% from the temperature range 40 - 200° C