

**DEVELOPMENT OF INSTRUMENTATION SYSTEM
FOR TEMPERATURE CONTROL**

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DECLARATION

I hereby declare that all materials in this thesis are the results of my own works except for excerpts whose sources are appropriately cited in the references.

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ABSTRACT

The “Development of Instrumentation System for Temperature Control” project is a combination of data acquisition and control methodologies to develop a system to measure and control the temperature level inside a computer case. The system is implemented through the integration of hardware and software parts. The hardware section covers the process of building a temperature sensor and an actuator. They are connected to the computer using the parallel port. Through the computer and C++ programming language, a GUI application program is created to present the temperature reading numerically and graphically, and at the same time give user the power to control the computer case’s fan to maintain the temperature level at specific point. This system is created to overcome the stability issue of the computer due to high operating temperature. It improves the cooling mechanism inside the computer case. With some modification, it can be extended to be utilizing for other purposes.

Keywords: Temperature monitor and control, computer, parallel port, GUI