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# 8051 Based Temperature Monitoring System with User Variable Alarms

M Sean Creigh

*Indiana University - Purdue University Fort Wayne*

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# **8051 Based Temperature Monitoring System with User Variable Alarms**

**Prepared for:**

Dr. Broberg

**Prepared by:**

M. Sean Creigh

April 27, 1998

This project is an 8051 based temperature monitoring system programmed in the C language. It uses a Dallas Semiconductor DS1820 temperature sensor for its ambient temperature measurement. It uses a back lit liquid crystal display (LCD) with built in Hitachi LCD controllers. The temperature monitor will constantly monitor the DS1820 for the current temperature and then display it on the LCD. The user of the temperature monitor can set points for the system to trigger an event such as turning on a fan. The user inputs the trigger point through three momentary push buttons, one to increment, one to decrement and one to set the trigger point. This report contains details on how the system functions, source code, application notes and references for this project.

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