DAFTAR ISI

LEMBAR PENGESAHAN

KATA PENGANTAR……...…….ii

DAFTAR ISI……...……...iv

DAFTAR GAMBAR……...……...…...vi

DAFTAR TABEL……...…….……...……viii

ABSTRAK…...……..ix

BAB I PENDAHULUAN ..... **Error! Bookmark not defined.**

1.1 Latar Belakang..... **Error! Bookmark not defined.**

1.2 Maksud dan Tujuan..... **Error! Bookmark not defined.**

1.3 Pembatasan Masalah..... **Error! Bookmark not defined.**

1.4 Metode Penelitian ..... **Error! Bookmark not defined.**

1.5 Sistematika Penulisan ..... **Error! Bookmark not defined.**

BAB II LANDASAN TEORI..... **Error! Bookmark not defined.**

2.1 Mikrokontroler..... **Error! Bookmark not defined.**

2.1.1 Dasar Mikrokontroller AT89S51 ..... **Error! Bookmark not defined.**

2.1.2 *Special Function Register* (SFR) ..... **Error! Bookmark not defined.**

2.2 ADC (*Analog Converter To Digital*) 0809... **Error! Bookmark not defined.**

2.3 Kelembaban..... **Error! Bookmark not defined.**

2.4 Sensor Suhu LM35..... **Error! Bookmark not defined.**

2.5 Optocoupler..... **Error! Bookmark not defined.**

2.6 Light Dependent Resistor (LDR)..... **Error! Bookmark not defined.**

2.7 *Licuid Crystal Dysplay* (LCD) ..... **Error! Bookmark not defined.**

2.8 Komponen Instrumentasi ..... **Error! Bookmark not defined.**

2.8.1 Regulator IC LM7805 ..... **Error! Bookmark not defined.**

2.8.2 Resistor..... **Error! Bookmark not defined.**

2.8.3 Kapasitor..... **Error! Bookmark not defined.**

2.8.4 Dioda ..... **Error! Bookmark not defined.**

2.8.5 Kristal ..... **Error! Bookmark not defined.**

BAB III PERANCANGAN ALAT ..... **Error! Bookmark not defined.**
3.1 Diagram Blok ..... **Error! Bookmark not defined.**
3.2 Rangkaian Sensor ..... **Error! Bookmark not defined.**
3.2.1 Rangkaian Sensor Suhu ..... **Error! Bookmark not defined.**
3.2.2 Rangkaian Sensor Kelembaban ..... **Error! Bookmark not defined.**
3.2.3 Rangkaian Sensor Arah Angin..... **Error! Bookmark not defined.**
3.2.4 Rangkaian Sensor Kecepatan Angin ..... **Error! Bookmark not defined.**
3.3 Rangkaian ADC 0809 ..... **Error! Bookmark not defined.**
3.4 Rangkaian Mikrokontroler ..... **Error! Bookmark not defined.**
3.5 Rangkaian Catu Daya..... **Error! Bookmark not defined.**
3.6 Perancangan Perangkat Lunak ..... **Error! Bookmark not defined.**
3.6.1 Prosedur Pembacaan Suhu dan Kelembaban..... **Error! Bookmark not defined.**
3.6.2 Prosedur Pembacaan Arah Angin ..... **Error! Bookmark not defined.**
3.6.3 Prosedur Pembacaan Kecepatan Angin. **Error! Bookmark not defined.**
BAB IV ANALISIS..... **Error! Bookmark not defined.**
4.1 Analisis Perangkat Keras ..... **Error! Bookmark not defined.**
4.1.1 Pengukuran Arah Angin ..... **Error! Bookmark not defined.**
4.1.2 Rangkaian Suhu ..... **Error! Bookmark not defined.**
4.1.3 Rangkaian Kelembaban..... **Error! Bookmark not defined.**
4.1.4 Rangkaian Kecepatan angin..... **Error! Bookmark not defined.**
4.1.5 Rangkaian ADC 0809 ..... **Error! Bookmark not defined.**
BAB V KESIMPULAN DAN SARAN..... 41
5.1 Kesimpulan..... 41
5.2 Saran..... 41
DAFTAR PUSTAKA..... 42
LAMPIRAN A. SCHEMATIC RANGKAIAN
LAMPIRAN B. LISTING PROGRAM
LAMPIRAN C. GAMBAR ALAT
LAMPIRAN D. DATA SHEET