Title: Maintenance and Reliability Analysis of Medical Equipment

Table of Contents

## Abstract

## Introduction

### 4008S Hemodialysis Maintenance

#### Hemodialysis Machine

#### Need of maintenance

### Increasing Pulse Oximeter’s Reliability Using Discrete Time Signal Processing Algorithm.

#### Pulse Oximeter

#### Need of Reliability in oximeter.

## Methodology

### Hemodialysis machine

#### RCBM strategy.

#### Cost model.

* + - 1. Expected cost calculation.
      2. Regular maintenance cost calculation.
      3. Unexpected cost calculation.
      4. Optimization and Genetic Algorithm

### Pulse oximeter

* + 1. Oximeter design
       1. Hardware design
       2. Software design
          1. Discrete time signal processing algorithm

## Results and Discussion

* 1. Results of Hemodialysis machine maintenance
  2. Results of Pulse Oximeter

## Conclusion

## References