MIMO Reefer

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CONTENTS

1 INTRODUCTION

This is introduction [1]

2 SYSTEM DESCRIPTION

forklaring af hvad er en reefer, hvad kan måles, hvad ønskes reguleret?

3 MODELING

3.1 Component models

3.1.1 Thermodynamic

- Compressor
- Condensor
- Reciever
- Valve
- Economizer
- Evaporator
- Pipe joining junction
- Pipe splitting junction
- Box

3.1.2 Electric

- Battery
- Inverter

3.2 Collection of components

3.2.1 Linearisation

Måske flere kapitler –¿ termodynamik / batteri elektrisk / linearisering

4 CONTROLLER DESIGN

4.1 State space controller - Pole placement

4.2 LMI / MPC controller

5 ROBUSTNESS OF CONTROLLER

6 TEST - SIMULATION

Benchmark against Bitzers current controller

7 TEST - REAL SYSTEM

8 CONCLUSION

REFERENCES

[1] K. K. Sørensen, *Model Based Control of Reefer Container Systems*, 2013.

9 APPENDIX