

Continous orientation measurements of mobile antenna

Martin Forsingdal (s154170)
Bachelor of Science in Engineering
2018

Continous orientation measurements of mobile antenna, Bachelor thesis

Report written by:

Martin Forsingdal (s154170)

Advisor(s):

Jens Christian Andersen, Associate Professor at the Electrical Engineering Department of DTU Mikael Espersen, CTO at MiWire ApS

DTU Electrical Engineering

Technical University of Denmark 2800 Kgs. Lyngby Denmark

elektro@elektro.dtu.dk

Project period: 2. Februar- 24. May

ECTS: 20

Education: B.Sc.Eng.

Field: Electrical Engineering

Class: Public

Edition: 1. edition

Remarks: This report is submitted as partial fulfillment of the requirements for gradu-

ation in the above education at the Technical University of Denmark.

Copyrights: ©Martin Forsingdal, 2018

 \mathbf{S}

Summary

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Preface

This xxx thesis was prepared at the department of Applied Mathematics and Computer Science at the Technical University of Denmark in fulfillment of the requirements for acquiring a yyy degree in zzz.

Acknowledgements

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Contents

Summary	i
Preface	iii
Acknowledgements	v
Contents	vii
1 Introduction	1
2 Theory	3
3 Method	5
4 Results	7
5 Conclusion	9
Appendices	11
A This is the first appendix	13

I ! _ L	_ _	┌ !	
I ICT	\bigcirc T	\vdash I \cap	ures
		1 19	

1.1	This is the DTU logo
	List of Tables
1.1	This is a caption to the table

Introduction

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum [adams1980hitchhiker].

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum [rfc2549].



Figure 1.1: This is the DTU logo.

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum ??.

Table 1.1: This is a caption to the table.

$$\begin{array}{c|cc}
h & h & h \\
e & e & e
\end{array}$$

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure

2 1 Introduction

dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum Table 1.1.

Theory

Lorem lipsum

Method

Lorem lipsum

Results

Lorem lipsum

Conclusion

Morbi pharetra ligula integer mollis mi nec neque ultrices vitae volutpat leo ullamcorper. In at tellus magna. Curabitur quis posuere purus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Suspendisse tristique placerat feugiat. Aliquam vitae est at enim auctor ultrices eleifend a urna. Donec non tincidunt felis. Maecenas at suscipit orci.





This is the first appendix

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

DTU Electrical Engineering Department of Electrical Engineering

Technical University of Denmark

Ørsteds Plads

Building 348

DK-2800 Kgs. Lyngby

Denmark

Tel: (+45) 45 25 38 00

www.elektro.dtu.dk