Double Tracking Antennas for UAS Communication Control and Automation

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Introduction

Overview

Hardwar

Frames

Telecommunica

Methods

MODELLII

Controll

Simulation

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Conclusion

The project is about UAS:

► What?



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Modellii

Controller

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Conclusion

The project is about UAS:

- ▶ What ?
- ► Why?



Introduction

Overview

The project is about UAS:

- ▶ What ?
- ► Why?
- ► How?



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The project is about UAS:

- ► What?
- ► Why?
- ► How ?
- ► State each part and whom will present.



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Hardware

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Simulatio

Result

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Unmanned Aicraft System (UAS)

- 1. Unmanned Aircraft (UA)
- 2. Ground Station (GS)
- 3. Antennas
- 4. DC Servomotor



Introduction

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Frames

Tologommuni

Methor

Modelli

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Conclusio

Geodetic Coordinate System

Earth-Centered Earth-Fixed (ECEF)

North-East-Down (NED)

Body Coordinate System

Introductio

Hardwa

Frame

Telecommunication

Method

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Cimulatia

Resu

Conclusio

Line-Of-Sight (LOS) Propagation

Link Budget

Fresnel Zones

MAVLink Protocol



Modelling

Moving Angle System (MAS)

Optimal Angle

Antenna



Introductio

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Telesconocidos

Telecommunica

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PID

Tunning

Comparion



Simulation

LOS Coverage Map

2D UAS

3D UAS



Results

Angle Range

Earth Curvature

Above GS

Mountain



Conclusion

We did this: ...

We can see that: ...

We conclude that: ...

Further work that can be built on the current project:

Thank you for flying with us!

