72320 Roversystemtechnik Summer Semester 2021

Phase 0/A-Study of a Rover Mission on the surface of the Jupiter moon: Europa: [Missionsname]

Saskia Sütterlin
Denis Acker
Krobinian Kasper
Daniel Bölke
Nicolas Probst
Christian Korn

Supervisor: Moritz Nitz M.Sc. Patrick Winterhalder M.Sc.

> University of Stuttgart Institute of Space Systems Prof. Dr. Sabine Klinkner

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Symbols

a nm Constant for the Geometry of a Porous Media

 $T_{
m Surface}$ K Surface Temperature on Europa

 ϵ - Emissivity

 $ho_{
m Ice} = rac{{
m kg}}{m^3}$ Inner Encoder Ring Diameter

Abbreviations

PCDU Power Control and Distribution Unit

2D Two Dimensional3D Three Dimensional

IMU Inertial Measurement Unit

IRS Institute of space Systems at the University of Stuttgart

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1.2 Mission Scenario

Operation

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Subsystems

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3.1 Rover

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3.3 Communications and Command and Data-Handling

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3.4 Payload

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3.5 Thermal Control

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3.6 Electrical Power System

Lander System

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4.1 Storage Configuration

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4.2 Depolyment Strategy

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Trade-Offs

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Risk and Technology Assessment

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6.1 Risk Assessment

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6.1.1 Risk Assessment Subsection

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6.2 Technology Assessment

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6.2.1 Acceleration segment

Appendix A

Appendix A

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Appendix B

Appendix B