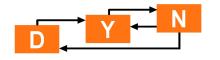
Technische Universität Dortmund Department of Biochemical and Chemical Engineering Chair of Process Dynamics and Operations Prof. Dr. Sebastian Engell



## DEVELOPMENT OF LOCAL POSITIONING SYSTEM FOR A PIPE-LESS PLANT

# Automation & Robotics Group Project SS18

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### Abstract

Summary. Note that the abstract heading is unnumbered, it should remain so. To remove heading numbering use:

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### 1 Introduction

Add your name to the file name

# 2 Pipeless Plant

- 2.1 Existing setup
- 2.2 Problems with the Existing Setup

.. zb

- Fish eye
- $\bullet \;$  Sunlight..

### 3 Selection Process

About the 4 techniques..

### 3.1 Triangulation

**Summary** 

Implementation

Pro and con

..

#### 3.2 Pattern Recognition

**Summary** 

**Implementation** 

Pro and con

..

#### **3.3 RFID**

**Summary** 

Implementation

Pro and con

..

#### 3.4 Map-Based Localization

**Summary** 

Implementation

Pro and con

..

example:

Col1	Col2	Col2	Col3
1	6	87837	787
2	7	78	5415
3	545	778	7507
4	545	18744	7560
5	88	788	6344

Table 1: Should be a caption

- 4 Theoretical Background
- 4.1 Radio Frequency Identification
- 4.2 Trilateration
- 4.3 Simulation
- 4.4 ...

- 5 Simulation<sup>1</sup>
- 5.1 Emulator
- 5.2 RSSI Measurements with real HW
- 5.3 Simulation with emulated data
- 5.4 Results

<sup>&</sup>lt;sup>1</sup>Stephan

- 6 Implementation
- 7 Hardware<sup>2</sup>
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- 7.2 Initialization procedure (Stephan and Stefan)
- 7.2.1 Recording and filtering data (Stefan)
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- 7.3 Results
- 7.4 Improvements

 $<sup>^2\</sup>mathrm{Abdul}$  and Stephan

# 8 Conclusion

conclude..

## 9 Future Work

...

# 10 References

..

# 11 Appendixes