

Industrial Edge Computing Application in Smart Manufacturing

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AV

Abstract—((remark: area)) ((todo: one sentence about the research area (which broad area are we considering?))) ((remark: issue)) ((todo: one sentence about the issue (what issue is getting to get solved?))) ((remark: related work)) ((todo: one sentence about the shortcomings of existing solutions.)) ((remark: approach)) ((todo: one sentence about the own approach)) ((remark: result)) ((todo: one sentence about the surplus value)) ((remark: validation)) ((todo: one sentence about the validation of the results)) ((remark: result)) ((todo: one sentence about the main contribution and an outlook)) ((todo: about 150 characters)) Lorem ipsum dolor sit amet, consectetur adipiscing 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.

Index Terms—IIoT, Industry 4.0, Fog, CPS

I. INTRODUCTION

- Short introduction of the Industry 4.0 vision and challenges that arise. (latency, number of devices -> amount of data, etc.) (problem statement)
- Short outline of how FOG concepts can help in solving the above stated problems/limitations
- Defining the Goal of this Paper
- Outline of the taken approach to achieve the goal

II. RELATED WORK

In order to place the contribution of the paper in context and identify the gap the work is intended to fill, we provide a short literature survey. ((todo: This survey focuses on Wide Area Terminal Experimentation and Research¹ (WATER) [Gavras:2007:FIR:1273445.1273460] and Greedy Computing² [Foster:2004]....)) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante.

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¹<http://ict-water.eu>

²<http://swoogle.umbc.edu>

gap 2

gap 3

intro

issue
gap 1

Tab. I: Example table.

Name	Age
Hans	80
Heinrich	77
Herbert	84

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III. MAIN PART

See Listing 1 and Table I.

Listing 1: Example Code

```

1 class HelloWorld {
2     private final static
3         String MESSAGE="Hello_World!";
4     public static void main(
5         String[] args) {
6         System.out.println(MESSAGE);
7     }
8 }

```

$$\begin{aligned}
 t_{fw}^d(d) &= \max_d(t_{child_i}) \\
 t_{db}^d(d) &= \sum_{i=1}^d t_{db_i} \\
 t_{pc}^d(n, d) &= \begin{cases} t_{pc}(d) + c(n) & \text{if } d = 1, \\ t_{pc}(d) + c(n) + \max(t_{avail}(d)) & \text{if } d > 1. \end{cases}
 \end{aligned} \tag{1}$$

IV. EVALUATION

Evaluation: How does it really work in practice? Provide real or simulated performance metrics, end-user studies, mention external technology adopters, if any, and so on.

This section presents the detailed results you have obtained. If the paper is theoretical, you might want to show curves obtained from your equations. If the paper is experimental, you will be presenting curves showing the measurement results. In order to choose the proper curves to present, you must first be clear what point you are trying to convey to the reader. The curves can then be chosen to illustrate this point. Whether your paper is theoretical or experimental, you must provide a careful interpretation of what your results mean and why they behave as they do.

See Figure 1 and Figure 2a.

V. CONCLUSION AND FUTURE WORK

((todo: We have shown that...)) Lorem ipsum dolor sit amet, consectetur adipiscing 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. . ((todo: The crucial results are...)) Lorem ipsum dolor sit amet, consectetur adipiscing 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

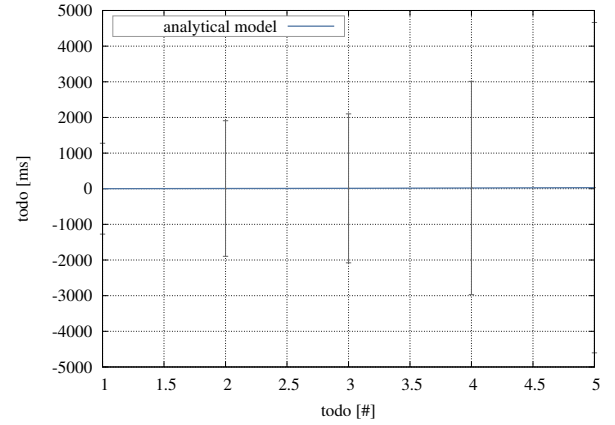
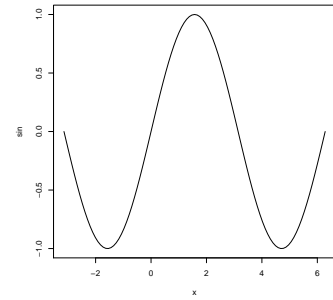
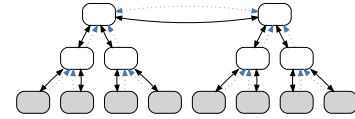


Fig. 1: Example image.



(a) Example2



(b) Example3

Fig. 2: Example images.

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((todo: The presented work provides potential benefits for...)) Lorem ipsum dolor sit amet, consectetur adipiscing 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.

results

((todo: Our short-term goal is to...)) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. ((todo: In medium term, we...)) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. ((todo: The long-term goals include...)) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem.

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VI. ACKNOWLEDGMENTS

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