Erklärung zur Studienarbeit

Hiermit versichere ich, die vorliegende Studienarbeit ohne Hilfe Dritter nur mit den angegebenen Quellen und Hilfsmitteln angefertigt zu haben. Alle Stellen, die aus Quellen entnommen wurden, sind als solche kenntlich gemacht. Diese Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen.

Darmstadt, den December 10, 2016

(V. Vadhri)

Parallel word sense disambigation of Hyperlex Algorithm

Studienarbeit von Viswanath Vadhri
Tag der Einreichung:

1. Gutachten: Prof. Felix Wolf
2. Gutachten: Sebastian Rinke

TECHNISCHE UNIVERSITÄT DARMSTADT

Laboratory for parallel programming
Fachbereich Informatik

Parallel word sense disambigation of Hyperlex Algorithm

Vorgelegte Studienarbeit von Viswanath Vadhri

1. Gutachten: Prof. Felix Wolf
2. Gutachten: Sebastian Rinke

Tag der Einreichung:

Abstract

Viswanath Vadhri is a good boy

Todo list

Contents

List of Figures

List of Tables

1 Equations

Equation for extraterrestrial radiation with $\bar{I}_0$, SC, n, L, δ and H_{SR}.
Equation for average wind power.

$$\overline{P}_w = \frac{c_1}{T}\int_0^T v_w^3\,dt \neq c_1\left(\frac{1}{T}\int_0^T v_w\,dt\right)^3 = c_1\cdot\overline{v}_w^3. \tag{1.1}$$

2 Acronyms

Use package glossaries.
Viswanath Vadhri Lorem ipsum dolor sit amet, consectetuer adipiscing elit **Carbon dioxide (CO_2) for the first time**, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat **CO_2 for the second time**, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum. Typi non habent claritatem insitam; est usus legentis in iis qui facit eorum claritatem.
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3 Citations

This could be a sentence from a book.[**wagner2010**]

4 Page numbering

The template consists of four parts.
The first part includes the title and second page and doesn't have any page numbers.

The second part consists of the table of contents, list of figures, list of tables, acronyms and symbols. It has roman page numbers and starts at **I**.
The third part contains the main content. It has arabic page numbers and starts at **1**.
The fourth and last part includes the bibliography. It has roman page numbers and continues the counting from part two.
The title and second page don't have any page numbers. It is therefore important to start with the roman page numbering below the command **\makethesistitle**. Otherwise LaTeX will throw warnings like

```
pdfTeX warning (ext4):
destination with the same identifier (name{page.}) has been already used,
duplicate ignored
```

5 Table

Table 5.1 shows a simple example with footnotes.

Table 5.1: Economic situation in Austria [**verbraucher2011**, **prognose2011**]

Year	Inflation rate in %[1]	Price trend[2]
2000	2,3	125,7
2001	2,7	129,1
2002	1,8	131,5
2003	1,3	133,2
2004	2,1	136,0
2005	2,3	139,1
2006	1,5	141,2
2007	2,2	144,3
2008	3,2	148,9
2009	0,5	149,6
2010	1,9	152,4
2011[3]	2,1	155,6
2012[3]	1,8	158,4

[1] Consumer price index
[2] Index 1990 = 100
[3] Forecast value

Table 5.2 shows a more complex example

Table 5.2: Technical data of the Mitsubishi i-MiEV [**imiev_daten**]

Description	Specification	Value
Dimensions	Length	3475 mm
	Width	1475 mm
	Height	1610 mm
	Wheel base	2550 mm
Load capacity	Luggage space	227 / 860 liters
	Curb weight	1110 kg
	Permissible maximum weight	1450 kg
	Payload	340 kg
	Seats	4 People
Driving characteristics	Energy consumption	135 Wh/km
	Range	150 km[1]
	max. Velocity	130 km/h
Battery data	Nominal voltage	330 V
	Electric charge	50 Ah
	Theoret. energy	16500 Wh
	Mass	165 kg
	Energy density	100 Wh/kg
Motor data	Typ	Permanent Synchronous Motor
	Nominal power	35 kW
	max. Torque	180 Nm

[1] Data measured in NEDC

6 To-do notes

Very useful while writing the thesis. Don't forget to delete them before printing the final copy.
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Translate text to english

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Something else to do

7 Images

Figure 7.1 shows two pictures side by side with one caption.

Figure 7.1: The Mitsubishi i-MiEV [**mmd2010**]

8 Bar charts

This chapter shows how to render a simple bar chart, a stacked bar chart and a grouped bar chart.

8.1 Simple bar chart

Figure 8.1 shows a simple bar chart.

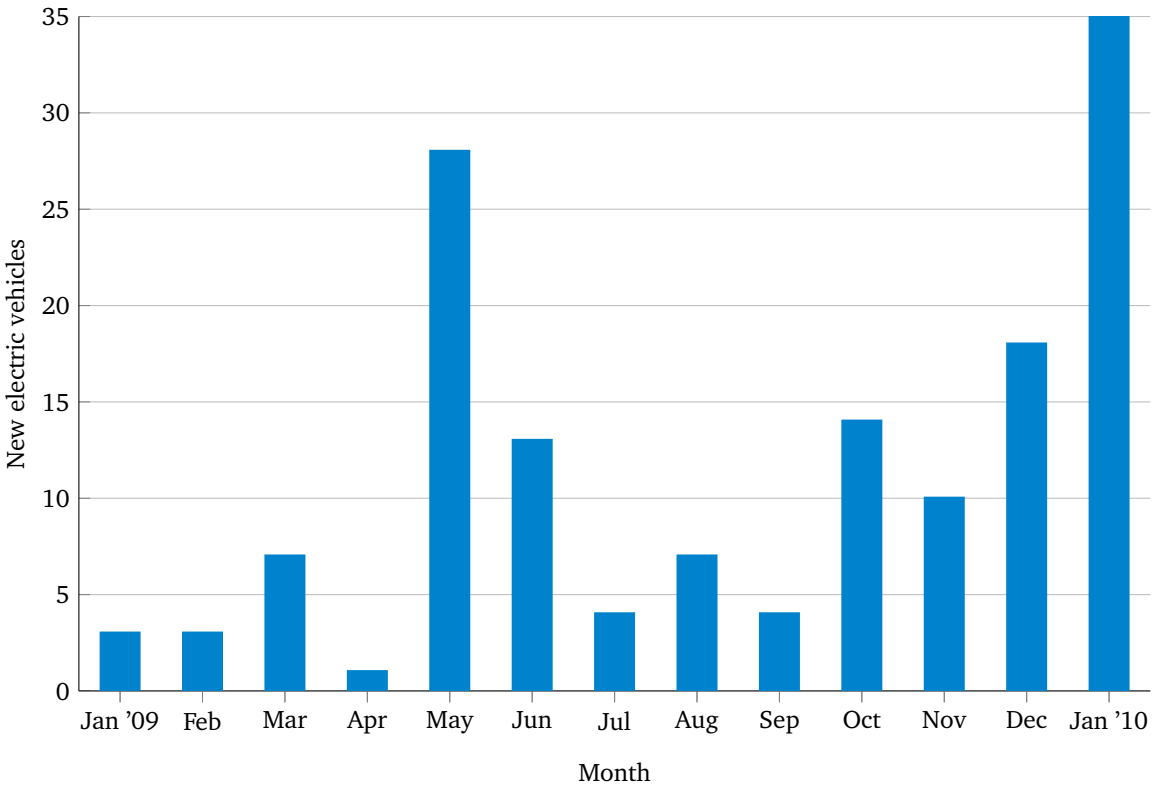
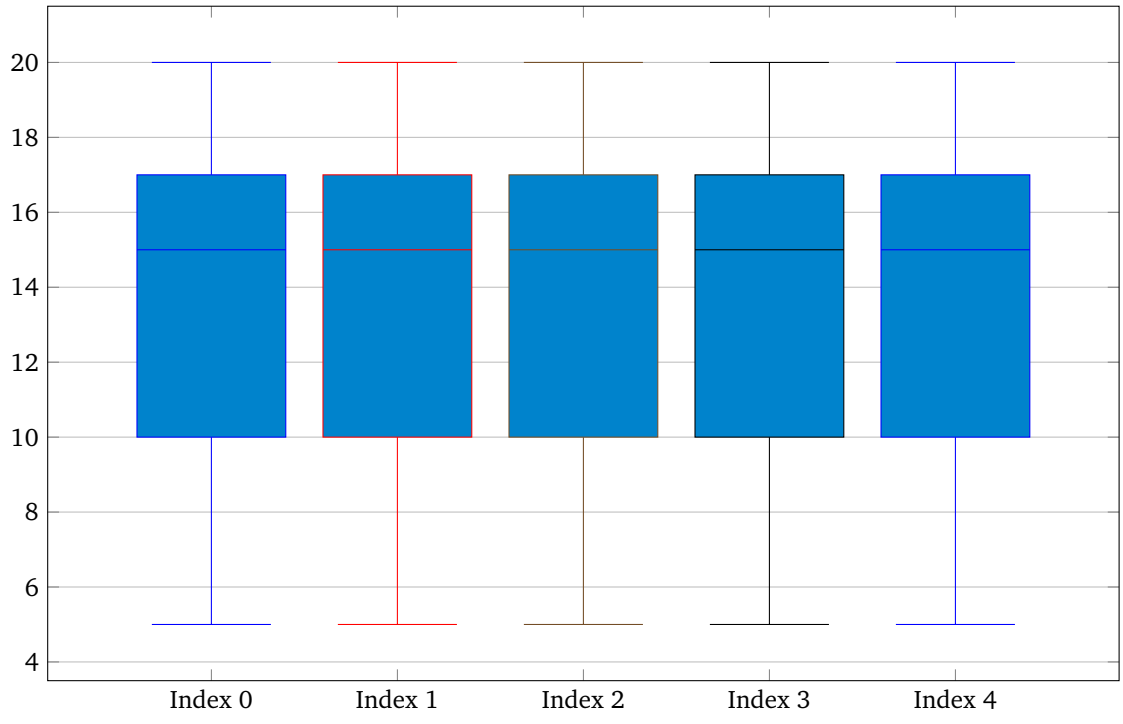
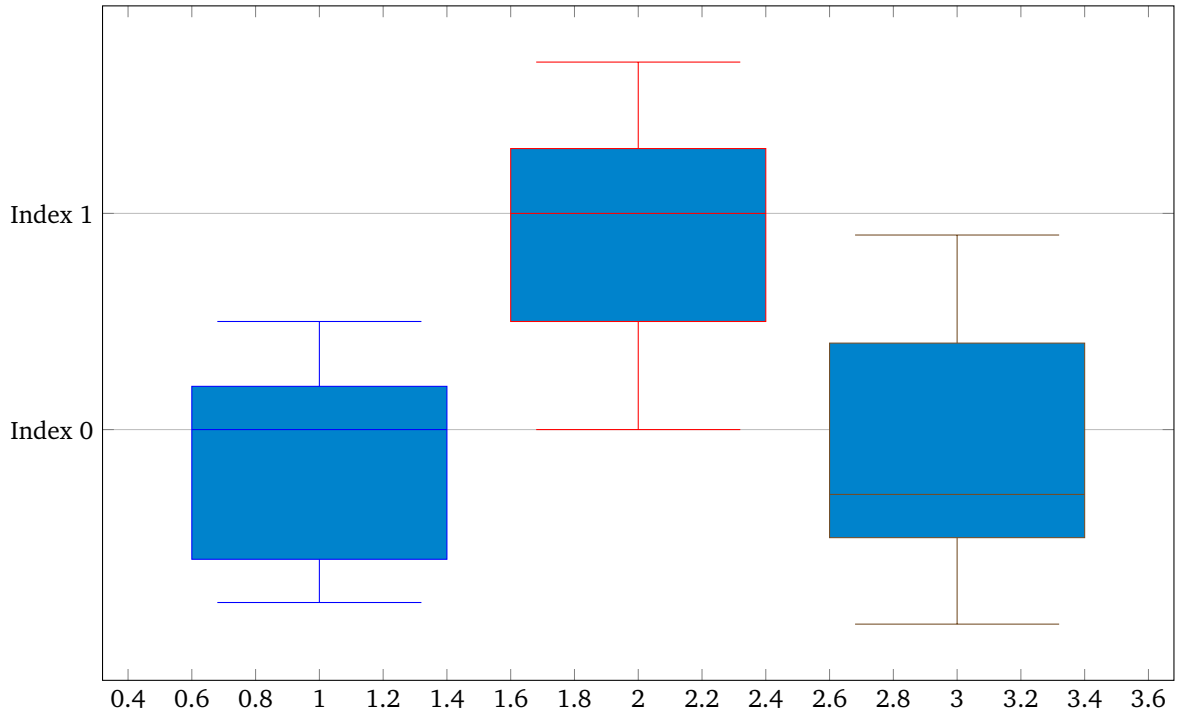


Figure 8.1: New electric vehicles between Januar 2010 and Januar 2011 [**sa-neuzulassungen**]

$$\bar{I}_0 = \frac{24}{\pi} SC \left[1 + 0,034 \cos\left(\frac{360n}{365}\right)\right] (\cos L \cos\delta \sin H_{\mathrm{SR}} + H_{\mathrm{SR}} \sin L \sin\delta) \tag{8.1}$$





8.2 Stacked bar chart

Figure 8.2 shows a stacked bar chart. Data from Energy Control Austria. Chart shows energy production from Run-of-the-river hydroelectricity (ROR), Storage power plant, Thermal power station and Renewable energy.

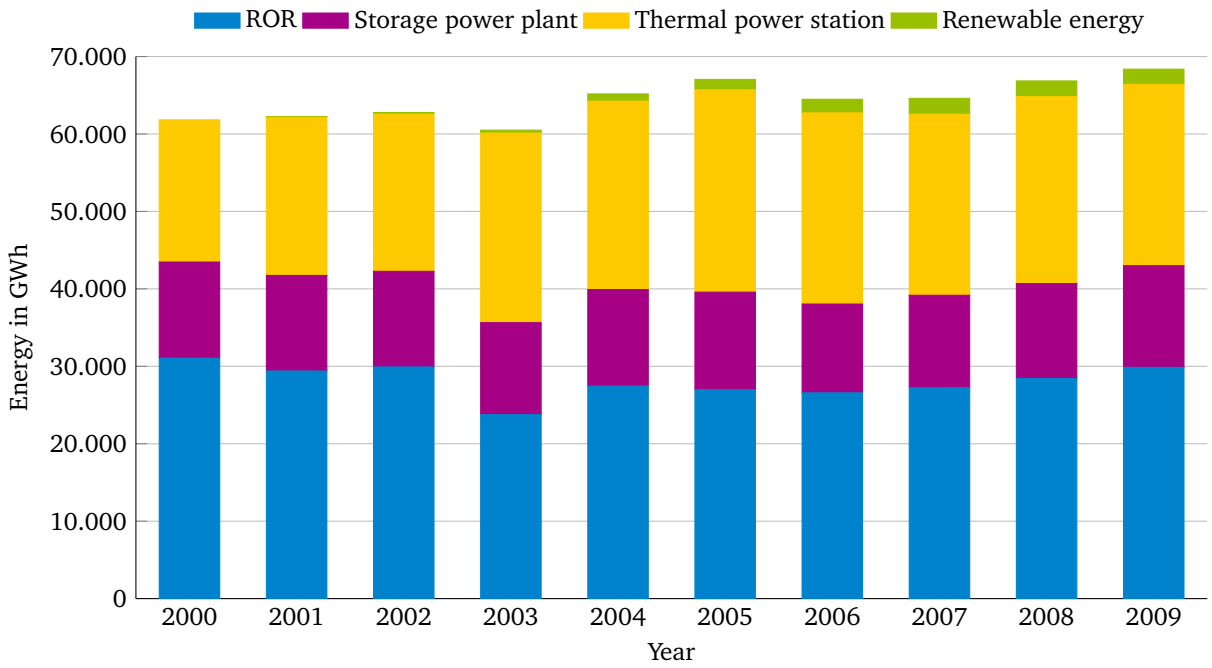


Figure 8.2: Energy production in Austria [**econtrol2011**]

8.3 Grouped bar chart

Figure 8.3 shows a grouped bar chart. some ref to co2 CO_2. Taken from Systemmodell zur Optimierung der Integration von Windenergieanlagen in Österreich und Deutschland page 126

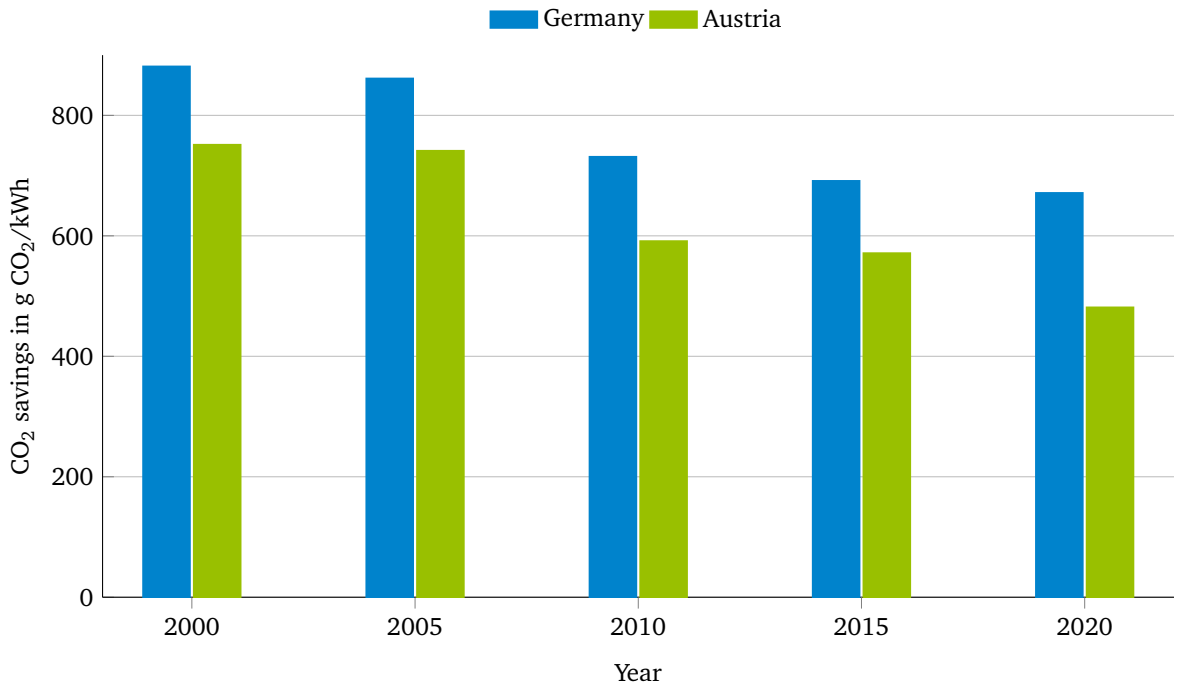


Figure 8.3: CO_2 savings from wind turbines in Germany and Austria [**auer06**]

9 Pie chart

Figure 9.1 shows a pie chart.

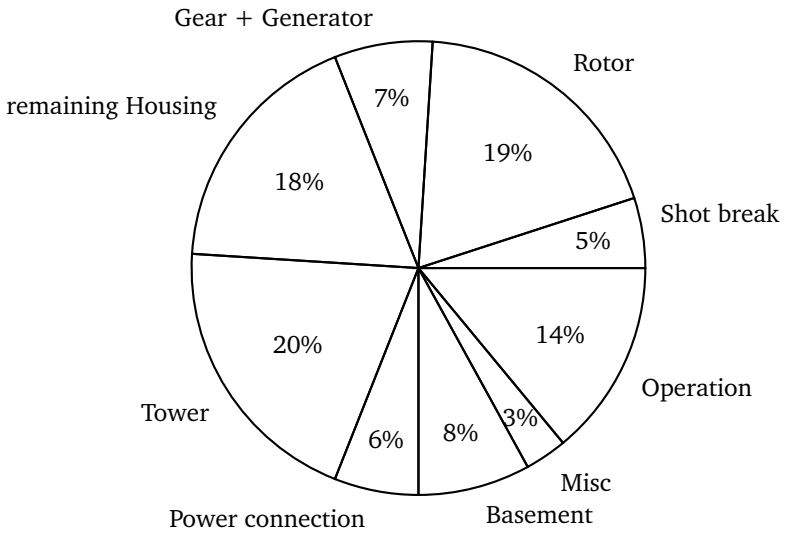


Figure 9.1: Break down of the CO_2 emissions of a wind turbine [**kaltschmitt2006**]

10 Line graph

Figure 10.1 shows a line graph.

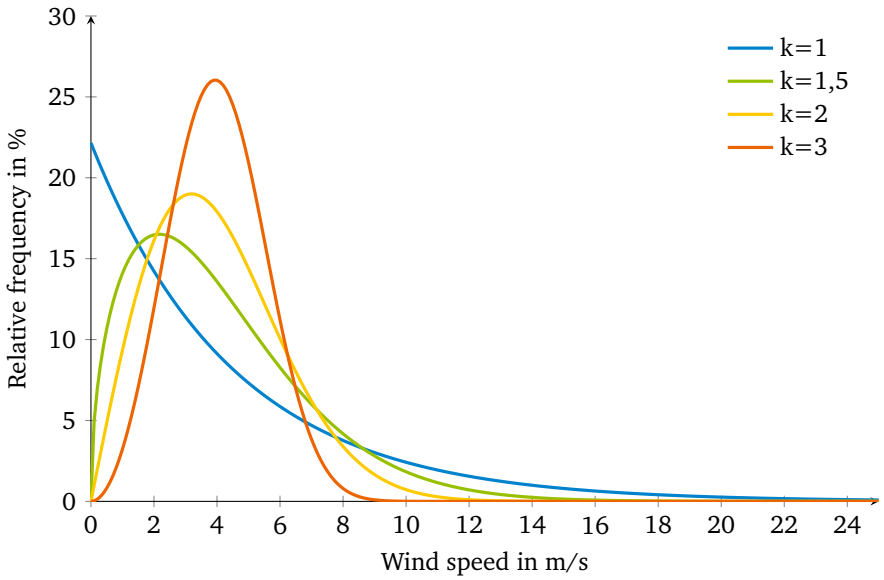


Figure 10.1: Weibull distribution with varying scaling factor $\bar{v}_w = 4\,\mathrm{m/s}$, scaling factor $A = 4,51\,\mathrm{m/s}$ and varying form parameter k

11 Two y-axes

One on the left and one on the right side.

12 Text replacement

When using psfrag it is important to use **latex** and not **pdflatex** for rendering.

13 Electronic circuits

Use the **tikz** package to draw electronic circuits and more.
Figure **??** shows the one diode equivalent circuit of a real solar cell.