

# My PhD Thesis

PhD Thesis Template (2025) for  $\text{\LaTeX}$

Delft University of Technology

N. K. (Nanda) Panda

My PhD Thesis

Dissertation

for the purpose of obtaining the degree of doctor  
Delft University of Technology  
by the authority of the Rector Magnificus, prof.dr.ir. X.Y.Z. van at London,  
chair of the Board for Doctorates  
to be defended publicly on  
Monday 4 June 2018 at 12:30 o'clock

by

John Doe  
Diplom-Informatiker, Technische Universität Darmstadt, Germanyborn in  
Nowhereland, Habitat



This dissertation has been approved by the promotors.

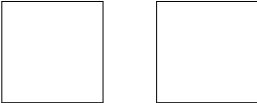
Composition of the doctoral committee:

Rector Magnificus,	chairperson
Prof.dr.ir. P.H.T. Verstappen	Delft University of Technology, promotor
Dr.ir. P.D. Deneuve	Delft University of Technology, copromotor

Independent members:

Prof.dr.ir. G.M. Van Bekhoven	Delft University of Technology
Prof. Y. Ishihara	Tokyo University, Japan
Prof.dr. P.M. Charlier	Eindhoven University of Technology
Prof.dr.ir. P.L.W. Goncalves Fernandes	Middle East Technical University, Turkey
Prof.dr. P. Dijkstra	Delft University of Technology, reserve member

*This thesis is confidential and cannot be made public until December 31, 2024.*



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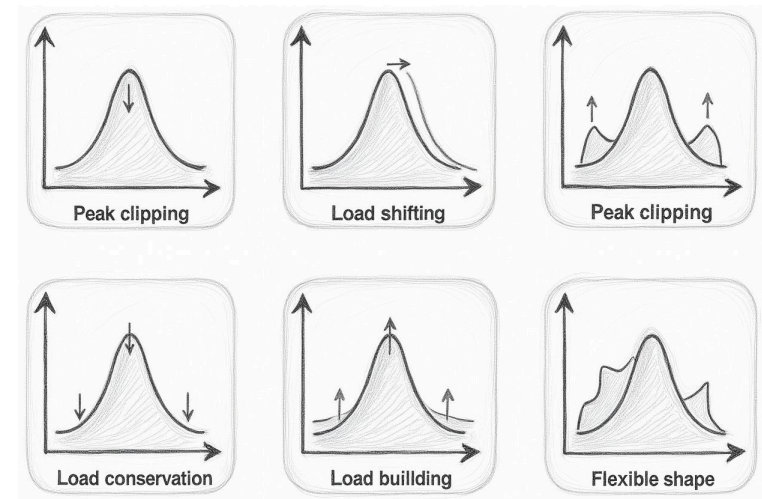
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# Abbreviations

EV Electric Vehicle

1

## Introduction



1.1. Different design for putting keywords

1.1.1. One row

KEYWORDS

Congestion

Flexibility

Smart Charging

Market Product

1.1.2. Multiple row with vertical heading

KEYWORDS

Aggregate Charging

Congestion

Electric Vehicles

Flexibility

Smart Charging

1.1.3. Multiple row with horizontal heading

KEYWORDS

Aggregate Charging

Congestion

Electric Vehicles

Flexibility

1.2. Chapter summary style

1.2.1. Horizontal heading

OVERVIEW

ENERGY iFusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

1.2.2. Vertical heading

OVERVIEW

ENERGY Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Donec odio elit, dictum in, hendrerit sit amet, egestas sed, leo. Praesent feugiat sapien aliquet odio. Integer vitae justo. Aliquam vestibulum fringilla lorem. Sed neque lectus, consectetur at, consectetur sed, eleifend ac, lectus. Nulla facilisi. Pellentesque eget lectus. Proin eu metus. Sed porttitor. In hac habitasse platea dictumst. Suspendisse eu lectus. Ut mi mi, lacinia sit amet, placerat et, mollis vitae, dui. Sed ante tellus, tristique ut, iaculis eu, malesuada ac, dui. Mauris nibh leo, facilisis non, adipiscing quis, ultrices a, dui.

Here you can use this space to refer to the publication on which the following chapter is based. For example, the contents of this chapter are related to the publication: Panda, N. K., & Tindemans, S. H. (2024). *Quantifying the Aggregate Flexibility of Electric Vehicles Charging Stations for Dependable Congestion Management Products - A Dutch Case Study*. *arXiv preprint* [arXiv:2403.13367](#).

1.3. Using abbreviations

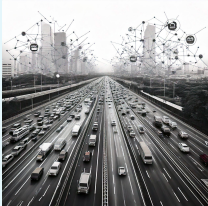
To streamline the use of abbreviations, it is recommended to use the “acronym” package. Then you can write abbreviations like Electric Vehicle (EV) by defining at a single point as inside the acronym\_list.tex under frontmatter. Plural form of the abbreviation can be written as EVs, and the full form can be called as Electric Vehicle (EV).

1.4. Using text box

To highlight a certain concept, you can use a text box, such as:

Congestion

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Donec odio elit, dictum in, hendrerit sit amet, egestas sed, leo. Praesent feugiat sapien aliquet odio. Integer vitae justo. Aliquam vestibulum fringilla lorem. Sed neque lectus, consectetur at, consectetur sed, eleifend ac, lectus. Nulla facilisi. Pellentesque eget lectus. Proin eu metus. Sed porttitor. In hac habitasse platea dictumst. Suspendisse eu lectus. Ut mi mi, lacinia sit amet, placerat et, mollis vitae, dui. Sed ante tellus, tristique ut, iaculis eu, malesuada ac, dui. Mauris nibh leo, facilisis non, adipiscing quis, ultrices a, dui.



1.5. Using reference

Things can be cited like [1]. Then it will automatically be shown in the Bibliography, provided a supporting “.bib” file is supplied. Make sure not to have duplicate entries in the file.

1.6. Section 4

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

Bibliography

[1] N. K. Panda, N. Li, and S. H. Tindemans, “Aggregate peak ev charging demand: The influence of segmented network tariffs,” in *2024 IEEE Transportation Electrification Conference and Expo (ITEC)*. IEEE, 2024, pp. 1–6.

# A

## Source Code Example

Adding source code to your report/thesis is supported with the package listings. An example can be found below. Files can be added using `\lstinputlisting[language=<language>]{<filename>}`

```
1 """
2 ISA_Calculator: import the function, specify the height and it will
   return a
3 list in the following format: [Temperature, Density, Pressure, Speed of
   Sound].
4 Note that there is no check to see if the maximum altitude is reached.
5 """
6
7 import math
8 g0 = 9.80665
9 R = 287.0
10 layer1 = [0, 288.15, 101325.0]
11 alt = [0, 11000, 20000, 32000, 47000, 51000, 71000, 86000]
12 a = [-.0065, 0, .0010, .0028, 0, -.0028, -.0020]
13
14 def atmosphere(h):
15     for i in range(0, len(alt)-1):
16         if h >= alt[i]:
17             layer0 = layer1[:]
18             layer1[0] = min(h, alt[i+1])
19             if a[i] != 0:
20                 layer1[1] = layer0[1] + a[i]*(layer1[0]-layer0[0])
21                 layer1[2] = layer0[2] * (layer1[1]/layer0[1])**(-g0/(a[
22                     i]*R))
23             else:
24                 layer1[2] = layer0[2]*math.exp((-g0/(R*layer1[1]))*(
25                     layer1[0]-layer0[0]))
26     return [layer1[1], layer1[2]/(R*layer1[1]), layer1[2], math.sqrt(1.4*R
27         *layer1[1])]
```

# B

## TU Delft Title Page Guide

The following guideline is based on the official regulations of the Graduate School of TU Delft. It was last updated on 23 September 2025. No rights can be derived from this document. Candidates are strongly advised to consult the most recent guidelines and adapt accordingly. The current version can be found at

### Making the title page for your doctoral dissertation – a practical guide

#### Contents

1. Introduction, rules and procedure
2. The front of the title page
3. The reverse side – the basics
  - 3.1 Adding the (co)promotor(s) and chairman
  - 3.2 Adding the committee members
  - 3.3 Other additions
4. The end result
5. Dual Degree dissertation – reverse side

### 1. Introduction, rules and procedure

Each TU Delft doctoral dissertation must contain a title page containing a standard formula and a number of variables. You can find the formal regulations concerning the title page in section D of the Implementation Decree on Doctoral Regulations on the Graduate School website.

Approval of the title page: when you submit the draft dissertation, propositions and Form B, the title page should also be included. Some variables (such as the defence date and the composition of your doctoral committee) may be left blank initially. Later, after confirmation and approval, the completed title page may be printed.

## 2. Front of the title page

- May be in English or Dutch (preferably the same as the dissertation).
- Text is centered.
- Rector Magnificus per 1-1-2018: Prof.dr.ir. T.H.J.J. van der Hagen. Always check the current Rector's name.
- Last name(s) in capitals.
- Academic title + university + country must be mentioned.

### Template in English

[Title of dissertation]

Dissertation

for the purpose of obtaining the degree of doctor  
at Delft University of Technology  
by the authority of the Rector Magnificus, [titles, name],  
chair of the Board for Doctorates

to be defended publicly on  
[weekday day month year] at [hh:mm] o'clock

by

[FIRST NAMES SURNAME in capitals]  
[highest academic title, university, country]  
born in [town/city, country of birth]

### Template in Dutch

[Titel van het proefschrift]

Proefschrift

ter verkrijging van de graad van doctor aan de Technische Universiteit Delft,  
op gezag van de Rector Magnificus, prof. [titels, naam],  
voorzitter van het College voor Promoties,

in het openbaar te verdedigen op  
[weekdag dag maand jaar] om [uu:mm] uur

door

[VOORNAMEN ACHTERNAAM in hoofdletters]  
[academische titel, universiteit, land]  
geboren te [plaats, land]

### Examples in English

Sustainable concrete infrastructure design

Dissertation

for the purpose of obtaining the degree of doctor  
at Delft University of Technology  
by the authority of the Rector Magnificus prof.dr.ir. T.H.J.J. van der Hagen  
chair of the Board for Doctorates

to be defended publicly on  
Monday 4 June 2018 at 12:30 o'clock

by

Özlem GÜL

Diplom-Informatiker, Technische Universität Darmstadt, Germany  
born in Munich, Germany

### Examples in Dutch

Duurzaam ontwerp van betonnen infrastructuur

Proefschrift

ter verkrijging van de graad van doctor aan de Technische Universiteit Delft,  
op gezag van de Rector Magnificus prof.dr.ir. T.H.J.J. van der Hagen  
voorzitter van het College voor Promoties,

in het openbaar te verdedigen op  
donderdag 1 januari 2018 om 12:30 uur

door

Mauro Pietro MACHIAVELLI VESPUCCI

Ingeniero de Caminos, Canales y Puertos, Universitat Politecnica de Catalunya,  
Spanje  
geboren te Florence, Italië

### 3. The reverse side – the basics

- Text is left-aligned.
- Must be in the same language as the front and the dissertation.
- Committee always includes: chairman (Rector Magnificus), at least one promotor, possibly a copromotor, independent members, and possibly reserve/other members.
- Hierarchy: chairman → promotor → copromotor → independent members → reserve member → other members.

#### Template in English

This dissertation has been approved by the promotor[s].

Composition of the doctoral committee: Rector Magnificus, chairperson [titles name] Delft University of Technology, promotor [Dr. titles name, affiliation, copromotor]

Independent members: Prof. [titles name] Delft University of Technology [titles name] [affiliation] ...

#### Template in Dutch

Dit proefschrift is goedgekeurd door de promotor[en].

Samenstelling promotiecommissie bestaat uit: Rector magnificus, voorzitter [titles name] TU Delft, promotor [titles name, affiliation, copromotor]

Onafhankelijke leden: Prof. [titles name] Technische Universiteit Delft ...

#### Example in English

This dissertation has been approved by the promotors.

Composition of the doctoral committee: Rector Magnificus, chairperson Prof.dr.ir. P.H.T. Verstappen, Delft University of Technology, promotor Dr.ir. P.D. Deneuve, Delft University of Technology, copromotor

Independent members: Prof.dr.ir. G.M. Van Bekhoven, Delft University of Technology Prof. Y. Ishihara, Tokyo University, Japan Prof.dr. P.M. Charlier, Eindhoven University of Technology Prof.dr.ir. P.L.W. Goncalves Fernandes, Middle East Technical University, Turkey Prof.dr. P. Dijkstra, Delft University of Technology, reserve member

#### Example in Dutch

Dit proefschrift is goedgekeurd door de promotoren.

Samenstelling promotiecommissie bestaat uit: Rector magnificus, voorzitter Prof.dr.ir. P.H.T. Verstappen, Technische Universiteit Delft, promotor Dr.ir. P.D. Deneuve, Technische Universiteit Graz, Oostenrijk, copromotor

Onafhankelijke leden: Prof.dr.ir. G.M. Van Bekhoven, Technische Universiteit Delft Prof. Y. Ishihara, Universiteit Tokyo, Japan Prof.dr. P.M. Charlier, Technische Universiteit Delft Prof. P. Leclerc, Katholieke Universiteit Leuven, België Dr. P. Dijkstra, Technische Universiteit Delft

### 3.1 Adding the chairman and (co)promotors

(Include examples 1–5 from guide as plain text.)

### 3.2 Adding the committee members

(Include examples with independent, reserve, and other members.)

### 3.3 Other elements

- Mention contributions from other members if applicable. - Mention funding sources if required. - Add ISBN, copyright, printing information at the bottom of the reverse side.

### 4. The end result

(The guide shows a sample layout; not reproduced here.)

### 5. Dual Degree Dissertation – Reverse Side

Example text:

This dissertation has been approved by the promotors.

Composition of the doctoral committee: Rector Magnificus, chairman Prof.dr. W.P. Geluk, Delft University of Technology, promotor Prof. Y. Ishihara, Berlin University of Technology, promotor

Independent members: Prof.dr. J.P. Van de Ven, Delft University of Technology Prof. P. Leclerc, Tokyo University, Japan Prof. B.T. Okonkwo, University of Abuja, Nigeria Prof.dr. P. Kohler, Berlin University of Technology, Germany Prof. P.M. Charlier, Delft University of Technology, reserve member

The doctoral research has been carried out in the context of an agreement on joint doctoral supervision between Berlin University of Technology, Germany and Delft University of Technology, the Netherlands.