



UNIVERSIDAD TECNICA  
FEDERICO SANTA MARIA



Advanced Center  
for Electrical and Electronic Engineering

# Title (full) Title (full) Title (full) Title (full) Title (full) Title (full) Title (full) Title (full) Title (full) subtitle

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<sup>2</sup>Affiliation 2

<sup>3</sup>Affiliation 3

Friday 10<sup>th</sup> March, 2023

# Contents

## 1 Section x

- Subsection xx

## 2 Section y

- Subsection xx
- Subsection yy

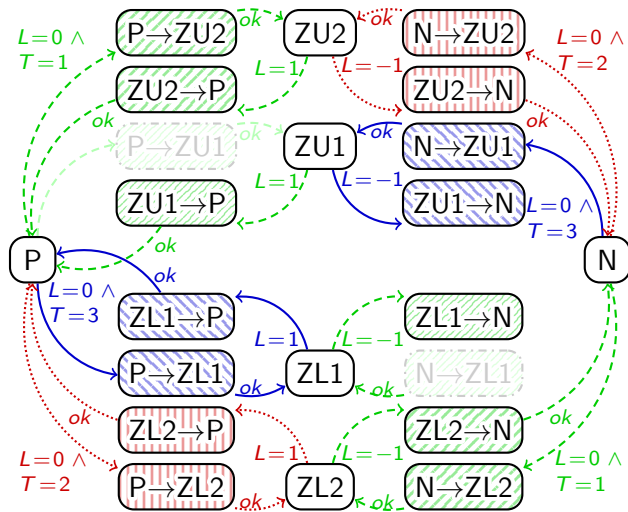
# Contents

## 1 Section x

- Subsection xx

## 2 Section y

- Subsection xx
- Subsection yy

Figure: Dummy TikZ Finite State Machine<sup>1</sup>.<sup>1</sup>RLP02.

# Tables

Table: Dummy table.

Author	Year
J. S. Bach	1685–1750
W. A. Mozart	1756–1791
L. Beethoven	1770–1827
F. Chopin	1810–1849
R. Schumann	1810–1856
B. Bartok	1881–1945

# Glossary text

The Metal Oxide Semiconductor FET (MOSFET) is a semiconductor, which uses a Field-Effect Transistor (FET). They have mean power losses ( $\overline{p_l}$ ) and mean junction temperature ( $\overline{\theta_j}$ ). There is Multi-Level (ML), Medium Voltage (MV), Silicon Carbide (SiC), Gallium Nitride (GaN) Voltage Source Converter (VSC), Neutral-Point Clamped (NPC), Neutral-Point Piloted (NPP), Active NPC (ANPC), Solid State Transformer (SST), Stack Multicell Converter (SMC), Smart Grid (SG), Power Factor Correction (PFC), Flying Capacitor (FC), Total Harmonic Distortion (THD).

The MOSFET is a semiconductor, which uses a FET. They have  $\overline{p_l}$ s and  $\overline{\theta_j}$ . There is ML, MV, SiC, GaN VSC, NPC, NPP, ANPC, SST, SMC, SG, PFC, FC, THD.

# Contents

## 1 Section x

- Subsection xx

## 2 Section y

- Subsection xx
- Subsection yy

# Itemize and enumerate

- item 1
- item 2
  - item 2.1
  - item 2.2
- item 1
- item 2
- item 1
- item 2



# Itemize and enumerate

- item 1
- item 2
  - item 2.1
  - item 2.2
- item 1
- item 2
- item 1
- item 2

- 1 item 1
- 2 item 2
  - 1 item 2.1
  - 2 item 2.2
    - 1 item 2.2.1
    - 2 item 2.2.2
- 3 item 2.3

# Breaks I

- fs
- fra
- hdy
- href
- href
- hyperref
- hhf
- erhrfrh
- hjrjrdej
- rtjrdsj
- sjjh
- gfj

# Breaks II

- sgj
- gfj
- dfgj
- fgj
- dfgjd
- dgjdfj
- dfgj
- dfgj
- dfgj
- dfgj
- dfgj
- dgfjsr
- gfj

# Multiple columns and blocks

block title

dasd

$$b = 1, \quad (1)$$

$$a = 2, \quad (2)$$

# Multiple columns and blocks

block title

dasd

$$b = 1, \quad (1)$$

$$a = 2, \quad (2)$$

block title 2

$$c = \int_{min}^{max} f(t)dt,$$



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Thank you for your attention!  
Any questions?

# Contents of appendices

3 References

4 Glossary

5 Appendix

6 Appendix 2

# References I

- [RLP02] Rodriguez, J., Lai, J.-S., and Peng, F. Z., “Multilevel inverters: A survey of topologies, controls, and applications,” *IEEE Trans. Ind. Electron.*, vol. 49, no. 4, pp. 724–738, Aug. 2002.



# Glossary of symbols I

Sign	Description	Unit
$\overline{\theta_j}$	Mean junction temperature	K
$\overline{p_l}$	Mean power loss	kW

# Glossary of acronyms I

Acronym	Description
ANPC	Active NPC
FC	Flying Capacitor
FET	Field-Effect Transistor
GaN	Gallium Nitride
ML	Multi-Level
MOSFET	Metal Oxide Semiconductor FET
MV	Medium Voltage
NPC	Neutral-Point Clamped
NPP	Neutral-Point Piloted
PFC	Power Factor Correction
SG	Smart Grid
SiC	Silicon Carbide
SMC	Stack Multicell Converter
SST	Solid State Transformer

# Glossary of acronyms II

THD	Total Harmonic Distortion
VSC	Voltage Source Converter

# Appendix:

# Appendix 2: