**23.01.2019**



**MIDDLE EAST TECHNICAL UNIVERSITY ELECTRICAL-ELECTRONICS ENGINEERING DEPARTMENT**

**EE463 POWER ELECTRONICS I**

**Fall 2018**

**HARDWARE PROJECT REPORT**

**Team Name: Smart Grid**

**Team Members: İven GÜZEL 2030831**

**Onur KÜLAHLIOĞLU**

**Ekin SAÇIN**

**To be submitted to: Ozan KEYSAN**

Table of Contents

[1. INTRODUCTION 3](#_Toc535662326)

[2. DESIGN DECISIONS 3](#_Toc535662327)

[2.1. Topology Selection 3](#_Toc535662328)

[2.2. Gate Driver 3](#_Toc535662329)

[3. COMPUTER SIMULATIONS 3](#_Toc535662330)

[4. COMPONENT SELECTION 3](#_Toc535662331)

[5. IMPLEMENTATION STEPS 3](#_Toc535662332)

[6. TEST RESULTS 3](#_Toc535662333)

[7. CONCLUSION 3](#_Toc535662334)

[APPENDIX A: Source Code of Arduino Gate Driver 3](#_Toc535662335)

[APPENDIX B: TIPS for Next Year’s Students 3](#_Toc535662336)

[REFERENCES 3](#_Toc535662337)

# INTRODUCTION

# DESIGN DECISIONS

## Topology Selection

## Gate Driver

# COMPUTER SIMULATIONS

# COMPONENT SELECTION

# IMPLEMENTATION STEPS

# TEST RESULTS

# CONCLUSION

# APPENDIX A: Source Code of Arduino Gate Driver

# APPENDIX B: Tips for Next Year’s Students

# REFERENCES