Automatic generation control of a two area power system using deep reinforcement learning

S. Reynolds (BMa., BFin.)

This interim report submitted as part of the assessment schedule for:

BACHELOR OF ENGINEERING HONOURS (ELECTRICAL)

Supervisors:
Dr. C. Yeo & Dr. S. Klaric

Charles Darwin University
College of Engineering

February 29, 2020

This work © copyright by S. Reynolds (BMa., BFin.), 2020. All Rights Reserved.

No part of this work may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the author or Charles Darwin University.

Declaration

I, *S. Reynolds (BMa., BFin.)*, declare that this interim report is submitted in partial fulfilment of the requirements for the conferral of the degree *BACHELOR OF ENGINEERING HONOURS (ELECTRICAL)*, from Charles Darwin University, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

S. Reynolds (BMa., BFin.)

February 29, 2020

Abstract

Acknowledgments

Contents

Abstract **iv**

List of Figures **vii**

List of Tables **viii**

List of Abbreviations **ix**

List of Symbols **x**

1 Introduction **1**

1.1 Background 1

1.2 Research Aim 1

1.3 Structure of Thesis 1

2 Literature Review **2**

3 Chapter Covering Approach **3**

4 Experiments **4**

5 Analysis and Discussion of Results **5**

6 Conclusions **6**

7 Future Work **7**

A Your first appendix **8**

A.1 The title of the first section 8

Bibliography **8**

B Your second appendix **9**

B.1 The title of the first section 9

List of Figures

List of Tables

List of Abbreviations

List of Symbols

Chapter 1

Introduction

1.1 Background

1.2 Research Aim

1.3 Structure of Thesis

Chapter 2

Literature Review

Chapter 3

Chapter Covering Approach

Chapter 4

Experiments

Chapter 5

Analysis and Discussion of Results

Chapter 6

Conclusions

Chapter 7

Future Work

Appendix A

Your first appendix

A.1 The title of the first section

The appendices work exactly the same way as chapters, they are numbered with letters rather than numbers though [**hori1973**].

Appendix B

Your second appendix

B.1 The title of the first section