

SUDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF GRADUATE STUDIES

**Artificial Neural Network Compensation Technique
for A PD Controlled Inverted Pendulum**

**تقنية تعويض الشبكات العصبية الاصطناعية في المتحكم التناسبي
التفاضلي للبندول المعكوس**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF M.Sc. IN ELECTRICAL
ENGINEERING (CONTROL AND MICROPROCESSOR)**

PREPARED BY:

MOHAMED OSMAN HAMAD HAGAR

SUPERVISED BY:

Dr. AWADALLAH TAYFOR ALI

SEP 2012

CHAPTER ONE

INTRODUCTION

CHAPTER TWO

THEORITICAL

BACKGROUND AND

LITERATURE REVIEW

CHAPTER THREE

MATHEMATICAL AND

CONTROL SYSTEM DESIGN

CHAPTER FOUR

SIMULATION RESULT

CHAPTER FIVE

CONCLUSION AND

RECOMMENDATIONS

REFERENCES