SYNOPSIS OF

INSERT THESIS TITLE HERE (ALL CAPITALS)

A THESIS

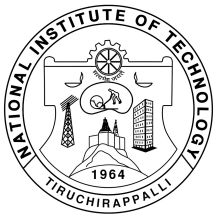
to be submitted by

NAME IN CAPS
(307116001)

for the award of the degree

of

MASTER OF SCIENCE (BY RESEARCH)



DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY
TIRUCHIRAPPALLI – 620015

APRIL 2019

1 INTRODUCTION

Introduction goes here, wherein outline briefly the technological / engineering / scientific / Socioeconomic relevance or significance of the research work is being reported. One sample paragraph is given below.

Electrical power system is one of the most complex and crucial technical innovations of mankind. A legacy power system hosts generation, transmission, distribution and consumption infrastructure, wherein large power plants pump power into the grid and try to keep a balance between generation and demand at all times. Smart grid (SG) is bringing a paradigm shift in the structure of power systems through information and communication technology (ICT), smart computational algorithms, consumers' participation, and trading infrastructure for local renewable generation [Fang *et al.* (2012)].

2 MOTIVATION

Trace to the pint, the developments in the area, to emphasize the current status and importance of the research problem identified. Sample text is given below.

The advancements in ICT and Internet of Things (IoT) will transcend the limitations of the legacy grid and propel it beyond singularity, that could bridge the gap between the consumers and the grid [Collier (2017)].

3 OBJECTIVES AND SCOPE

The objectives of the present research work are as follows:

1. First Novel Point
    - supportive statements;
    - benefits;
2. Second Novel Point
    - supportive statements;
    - benefits;

The scope of the present research work adopts a steady state modeling of household appliances from [Arun and Selvan (2017)]. Replace existing sample paragraphs with your paragraphs.

4 DESCRIPTION OF THE RESEARCH WORK

Give brief, but sufficient, details regarding:

4.1 The research problems

Sample Text.

4.2 Solution methodologies

Sample Text.

4.3 Interpretation of the results / output

Sample Text and Sample equation.

$$\left(\alpha,\beta,\gamma,T^{set},\Delta T\right)=\begin{cases}(0,0,0,0,0) & if\ X\\ (0,0,0,1,1) & if\ Y\\ (1,1,1,0,0) & if\ Z\\ (1,1,1,0,0) & if\ A\end{cases} \tag{1}$$

5 CONCLUSIONS

Highlight major (and not all) Conclusions / Limitation. Based on the experimental studies and results, the following conclusions are drawn:

1. *Conclusive Remark 1*

   Explanation.

2. *Conclusive Remark 2*

   Explanation.

3. *Conclusive Remark 3*

   Explanation.

6 REFERENCES

1. **Arun, S. L.** and **M. P. Selvan** (2017) Dynamic demand response in smart buildings using an intelligent residential load management system. *IET Generation, Transmission Distribution*, **11**(17), 4348–4357.

2. **Collier, S. E.** (2017) The emerging enernet: Convergence of the smart grid with the internet of things. *IEEE Industry Applications Magazine*, **23**(2), 12–16.

3. **Fang, X.**, **S. Misra**, **G. Xue**, and **D. Yang** (2012) Smart grid — the new and improved power grid: A survey. *IEEE Communications Surveys Tutorials*, **14**(4), 944–980.

7 FIGURES AND TABLES



(a) Sample Image 1 Caption **(b) Sample Image 2 Caption**

Fig. 1 Caption of Figure

8 PROPOSED CONTENTS OF THE THESIS

CHAPTER 1 INTRODUCTION

1.1 PREAMBLE
1.2 LITERATURE REVIEW
1.3 OBJECTIVE AND SCOPE OF THE PRESENT RESEARCH WORK
1.4 ORGANIZATION OF THESIS

CHAPTER 2 CONCLUSIONS

2.1 MAJOR CONTRIBUTIONS
2.2 SCOPE FOR FUTURE WORK

REFERENCES
PUBLICATIONS FROM THIS THESIS

9 LIST OF PUBLICATIONS BASED ON THE RESEARCH WORK

Patent Filed

1. List patents if any else remove/comment this subsection.

Refereed Journals

1. **Singh, S.**, **A. Roy** and **M. P. Selvan** (2019) Smart load node for nonsmart load under smart grid paradigm: a new home energy management system. *IEEE Consumer Electronics Magazine*, **8**(2), 22–27.

International Conferences

1. **Singh, S.**, **A. Namboodiri** and **M. P. Selvan** (2019) Simplified algorithm for dynamic demand response in smart homes under smart grid environment. *IEEE PES GTD Grand International Conference & Exposition Asia*, Bangkok, Thailand.

Papers Under Review

1. Declare papers under review here (if needed). Otherwise you may delete/comment this subsection.