ACKNOWLEDGEMENTS

In the name of ALLAH, Most Gracious, And Most Merciful Praise is Almighty ALLAH (Subhanahu Wa Ta'la) who gave me the courage and patience to carry out this work.

I would like to express my deep gratitude to my supervisor, Dr.

AWADALLAH TAYFOR ALI for his kindness, constant endeavor, guidance and the numerous moments of attention he devoted through this work.

I would like to thank all the staff of School of Electrical and Nuclear Engineering, Sudan University of Science and Technology, Ustaz\Walied Alzbair Mohammed for their help and advice.

Finally, my deepest gratitude owed to my friends, my family.