

ACKNOWLEDGEMENT

First and foremost, I would like to express my immense gratitude to my supervisor **Prof. D. N. Vishwakarma**, for valuable research opportunity, endless encouragement and affectionate guidance given by him. I really learned a lot from his thorough insight into power systems protection, and his way of carrying out research.

I am highly indebted to my Co-supervisor **Prof. R. K. Saket**, for his valuable suggestion to complete this thesis work. The completion of this thesis would not be possible without his guidance and persistent help during my research work.

I would like to express my appreciation to my thesis RPEC committee: **Prof. S. P. Singh, Prof. T. Som** for their valuable contributions, help, and suggestions for the research.

My profound gratitude to **Prof. D. Singh**, Head of Department of Electrical Engineering, Indian Institute of Technology (BHU), Varanasi for providing effective management, necessary facilities and valuable suggestions for success of this work. I would also like to thank all other faculty members of the department and all staff members of the department and office for their cooperation in completion of this work.

I also thank all research scholars of the department for their valuable support and suggestions. Finally, I am forever grateful to my parents, brother, sisters, and my wife for their understanding and support during these years.

Date: 25/06/2019

(Sunil Kumar Singh)