FAULT RIDE-THROUGH STRATEGY FOR TWO-STAGE GPV SYSTEM ENABLING LOAD COMPENSATION CAPABILITIES USING EKF ALGORITHM

A Thesis

Submitted in partial fulfillment of the Requirements for the award of the Degree of

MASTER OF TECHNOLOGY

In

ELECTRICAL POWER SYSTEMS

ELECTRICAL & ELECTRONICS ENGINEERING

Done by

T. DHANASHEKHAR REDDYBABU

Reg. No. 18781D0703

Under the guidance of

Mr. G. Venkat Pradeep, M. Tech

Assistant Professor



Department of Electrical and Electronics Engineering

SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY [AUTONOMOUS]

R.V.S Nagar, Chittoor, Accredited by NAAC 'A' Grade & NBA,
Approved by AICTE, New Delhi, Affiliated to JNTUA, Ananathapuramu.
RANKED By NIRF 2019, MHRD, and A.P.
2018-2020

SRI VENKATESWARA COLLEGE OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS)

(Affiliated to JNTUA, Ananathapuramu, Approved by AICTE, New Delhi & Accredited by NAAC Bangalore & Accredited by NBA, New Delhi R.V.S. Nagar, Tirupathi Road, Chittoor-517127, Chittoor (Dt.)) A.P.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

<u>CERTIFICATE</u>

This is to certify that the thesis work entitled "FAULT RIDE-THROUGH STRATEGY FOR TWO-STAGE GPV SYSTEM ENABLING LOAD COMPENSATION CAPABILITIES USING EKF ALGORITHM" is a bonafide work carried out by T. DHANASHEKHAR REDDYBABU (18781D0703), submitted in the partial fulfillment of the requirements for the award of the degree, MASTER OF TECHNOLOGY in the stream of ELECTRICAL POWER SYSTEMS in ELECTRICAL AND ELECTRONICS ENGINEERING at SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), R.V.S Nagar, Chittoor, Accredited by NAAC 'A' Grade & NBA, Approved by AICTE, New Delhi, affiliated to Jawaharlal Nehru Technological University Ananathapuramu, Ananathapuramu during the academic year 2019-2020.

Project Guide: Mr. G.VENKAT PRADEEP, M.TECH Assistant Professor Dept. of EEE SVCET, Chittoor. Head of Department: Prof. Dr.Y.N.VijayaKumar,Ph.D Professor Dept. of EEE SVCET, Chittoor.

Su	bmitted	for	University	Examination:	

INTERNAL EXAMINER

EXTERNAL EXAMINER

DECLARATION

I, hereby declare that the thesis work entitled "FAULT RIDE-THROUGH STRATEGY FOR TWO-STAGE GPV SYSTEM ENABLING LOAD COMPENSATION CAPABILITIES USING EKF ALGORITHM" is original work done by me under the guidance of Mr. G. VENKAT PRADEEP & submitted in partial fulfillment of the requirements for the award of degree of Master of Technology with specialization of Electrical Power Systems in the Dept. of Electrical and Electronics Engineering at SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), R.V.S Nagar, Chittoor, A.P.

Date: T. DHANASHEKHAR REDDYBABU

Place: R.V.S Nagar, Chittoor (18781D0703)

ACKNOWLEDGEMENT

I sincerely thanks to the MANAGEMENT of SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), of for providing excellent infrastructure and lab facilities that helped me to complete this project.

I sincerely thank to **Dr. Matam. Mohan Babu, M. Tech., Ph.D., Principal** of our college for fostering an excellent academic environment and also for his suggestions during my project work.

I am grateful to **Dr. Y. N. Vijaya Kumar, Professor & Head** of the Electrical and Electronics Engineering Department for his. During my project work.

I thankful to **Mr. G. VENKAT PRADEEP, M. Tech**, for his guidance, valuable suggestions and uninterrupted cooperation during my project work.

I am also wish to place on record our gratefulness to other faculty of Electrical and Electronics Engineering Department and also to our friends for their help and cooperation during my project work.

Finally, a word of gratitude to our family members who has been a constant source of encouragement and love.

T. DHANASHEKHAR REDDYBABU (18781D0703)