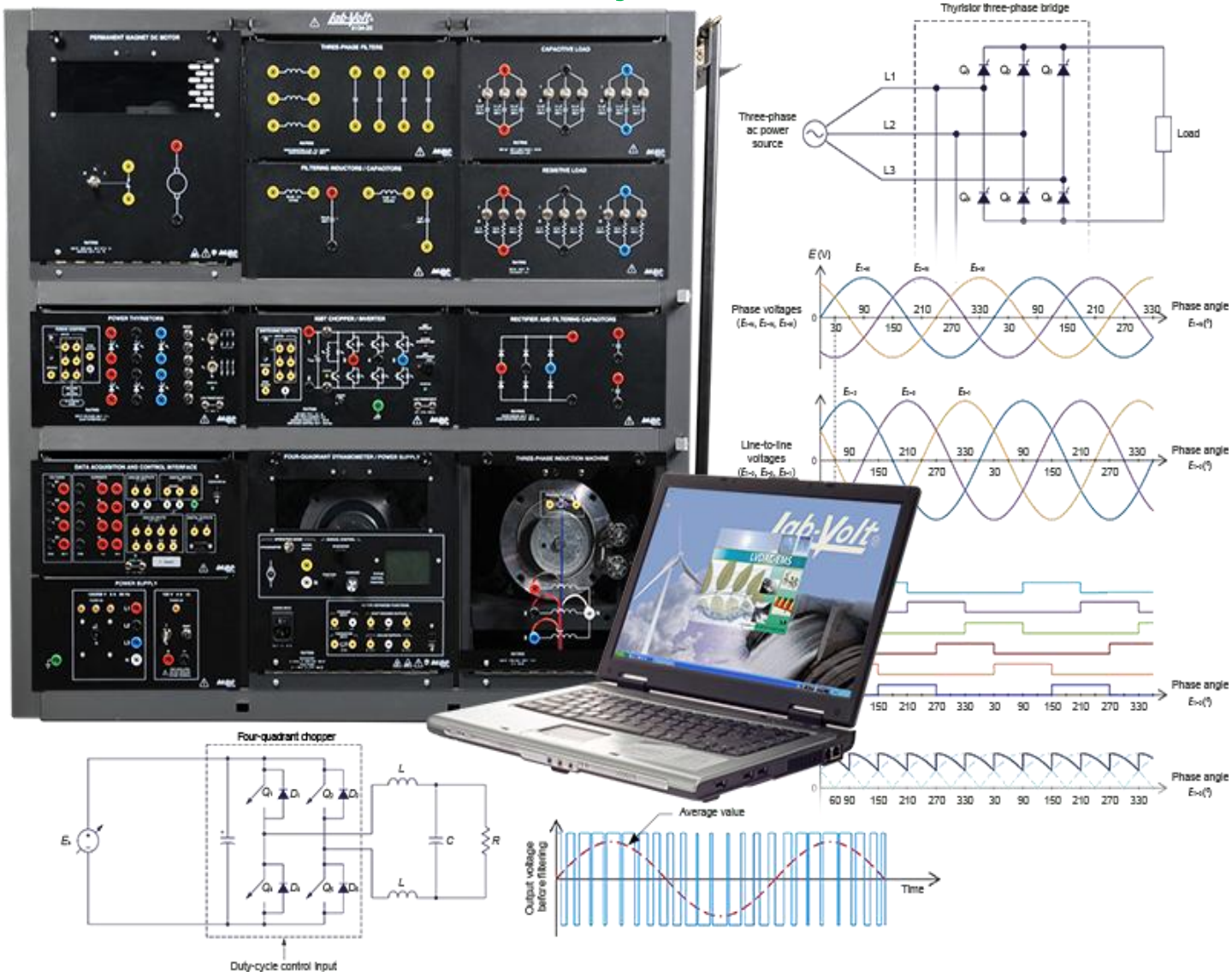
Department of Electrical and Electronics Engineering

POWER ELECTRONICS

Laboratory Manual



Gokaraju Rangaraju Institute of Engineering & Technology

POWER ELECTRONICS

Laboratory Manual

By

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Department of Electrical and Electronics Engineering

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Bachupally, Kukatpally
HYDERABAD 500090.

Power Electronics Lab Record

CERTIFICATE

This is to certify that it is a Bonafide Record of practical work done in the Power Electronics Laboratory in I sem of I Year during the year……

Name:……..
Roll no:……....
Course: M.Tech. ……. Year……Semester……
Branch: ……...

SIGNATURE OF STAFF MEMBER

CONTENTS

LIST OF EXPERIMENTS

(Simulation Experiments)

(Hardware Experiments)

COURSE OBJECTIVES & OUTCOMES

COURSE OBJECTIVES:

1. To provide the students hands on experience on power electronics switches.
2. To program different switching patterns in power electronics systems.
3. To study advanced power electronic converters.
4. To familiarize the operation of rectifier circuits.
5. To study the power electronics based resonant inverters.

COURSE OUTCOMES:

1. Define the basics of power electronics switches and Evaluate the V-I characteristics of SCR
2. Relate the operating characteristics of Thyristor controlled & IGBT controlled rectifiers
3. Analyze the operation of 3-ph bridge rectifiers
4. Apply the knowledge of triggering of IGBT & MOSFET for Chopper circuit
5. Extend the knowledge of control technique for Cyclo-converter and relate the operating characteristics of converters for different loads.

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SI.NO:	DATE	EXPERIMENT	SIGNATURE

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