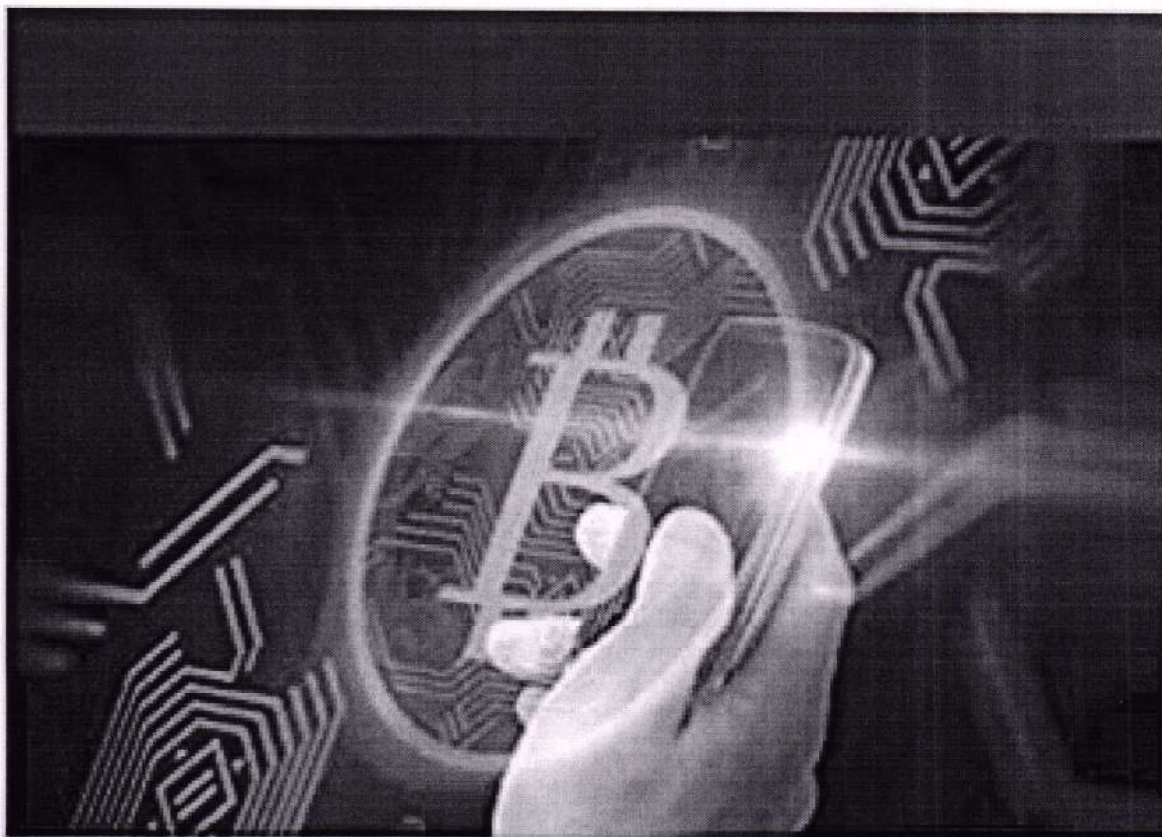


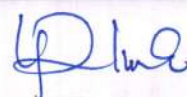


Nikarath Mukund Deshpande

Basic Electronic Devices

A simplified approach

 **LAMBERT**
Academic Publishing



PRINCIPAL
Dr. Vithalrao Vikas Patil
College of Engineering

Nilkanth Mukund Deshpande

Basic Electronic Devices

A simplified approach

FOR AUTHOR USE ONLY

LAP LAMBERT Academic Publishing


PRINCIPAL

Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar

Imprint

Any brand names and product names mentioned in this book are subject to trademark, brand or patent protection and are trademarks or registered trademarks of their respective holders. The use of brand names, product names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:

LAP LAMBERT Academic Publishing

is a trademark of

International Book Market Service Ltd., member of OmniScriptum Publishing Group

17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page

ISBN: 978-620-0-26189-2

Copyright © Nilkanth Mukund Deshpande

Copyright © 2020 International Book Market Service Ltd., member of OmniScriptum Publishing Group

FOR AUTHOR USE ONLY


PRINCIPAL

Dr. Vithalrao Vikhe Patil
College of Engineering

Contents

Semiconductor Basics	3
Circuit Diagram of Half Wave Rectifier	3
Operation of Half Wave Rectifier	3
Peak Inverse Voltage	4
Center Tapped Full Wave Rectifier	5
Operation of the Center Tapped Full Wave Rectifier	6
Peak Inverse Voltage of Center Tapped Full Wave Rectifier	7
Advantages and Disadvantages of Center Tapped Full Wave Rectifier	8
Full Wave Bridge Rectifier	9
Operation of Full Wave Bridge Rectifier	9
Peak Inverse Voltage of Full Wave Bridge Rectifier	12
Advantages of Full Wave Bridge Rectifier	12
Disadvantages of Full Wave Bridge Rectifier	12
Zener Diode	13
Circuit Diagram	13
Working of Zener Diode	13
Characteristics of Zener Diode	14
Applications of Zener Diode	15
Zener Breakdown and Avalanche Breakdown	15
Avalanche Breakdown	15
Zener Breakdown	16
Equivalent Circuits of diodes (Ideal and Zener diode)	17
Difference Between Avalanche & Zener Breakdown	19
Content: Avalanche Vs Zener Breakdown	19
Comparison Chart	20
Breakdown Characteristic Graph	20
Definition of Avalanche Breakdown	21
Transistor	23
Transistor Symbols	23