

As per New Syllabus of  
Vivekanand College Kolhapur (Autonomous)  
**B.Sc.-I and B.Sc. Computer Science**  
**Entire Part-I : CBCS**



# **ELECTRONICS**

## **ANALOG ELECTRONICS (PAPER-I)**

### **(SEMESTER-I)**



**Dr. C. B. PATIL**  
**N. P. MOTE**

**P. R. BAGADE**  
**Dr. M. S. PATIL**

 **NIRALI**  
**PRAKASHAN**  
ADVANCEMENT OF KNOWLEDGE

A TEXT BOOK OF

# ELECTRONICS

ANALOG ELECTRONICS (PAPER-I)

FOR

B.Sc. I and B.Sc. Computer Science (Entire Part - I)

As Per New Syllabus of

Vivekanand College, Kolhapur (Autonomous), June 2022

**Dr. C. B. PATIL**

M.Sc., SET, Ph.D.

Associate Professor and Head,  
Department of Electronics,  
Vivekanand College, Kolhapur,  
(Autonomous)

**P. R. BAGADE**

M.Sc., SET, NET

Assistant Professor,  
Department of Electronics,  
Vivekanand College, Kolhapur,  
(Autonomous)

**N. P. MOTE**

M.Sc., SET

Assistant Professor,  
Department of Electronics,  
Vivekanand College, Kolhapur,  
(Autonomous)

**Dr. M. S. PATIL**

M.Sc., Ph.D.

Assistant Professor,  
Department of Electronics,  
Vivekanand College, Kolhapur,  
(Autonomous)

Price ₹ 70.00

 **NIRALI**<sup>®</sup>  
**PRAKASHAN**  
ADVANCEMENT OF KNOWLEDGE

N6576

# B.Sc. I : Analog Electronics (Paper - I)

First Edition : October 2022

ISBN 978-93-95951-11-1

© : Authors

The text of this publication, or any part thereof, should not be reproduced or transmitted in any form or stored in any computer storage system or device for distribution including photocopy, recording, taping or information retrieval system or reproduced on any disc, tape, perforated media or other information storage device etc., without the written permission of Authors with whom the rights are reserved. Breach of this condition is liable for legal action.

Every effort has been made to avoid errors or omissions in this publication. In spite of this, errors may have crept in. Any mistake, error or discrepancy so noted and shall be brought to our notice shall be taken care of in the next edition. It is notified that neither the publisher nor the authors or seller shall be responsible for any damage or loss of action to any one, of any kind, in any manner, therefrom. The reader must cross check all the facts and contents with original Government notification or publications.

**Published By :**  
**NIRALI PRAKASHAN**  
Abhyudaya Pragati, 1312, Shivaji Nagar,  
Off J.M. Road, Pune - 411005  
Tel - (020) 25512336/37/39  
Email : niralipune@pragationline.com

**Polyplate**  
**YOGIRAJ PRINTERS AND BINDERS**  
Printed By :  
Survey No. 10/1A, Ghule Industrial Estate  
Nanded Gaon Road  
Nanded, Pune - 411041

## DISTRIBUTION CENTRES

### PUNE

**Nirali Prakashan**  
(For orders outside Pune)  
S. No. 28/27, Dhayari Narhe Road, Near Asian College  
Pune 411041, Maharashtra  
Tel : (020) 24690204; Mobile : 9657703143  
Email : bookorder@pragationline.com

**Nirali Prakashan**  
(For orders within Pune)  
119, Budhwar Peth, Jogeshwari Mandir Lane  
Pune 411002, Maharashtra  
Tel : (020) 2445 2044; Mobile : 9657703145  
Email : niralilocal@pragationline.com

### MUMBAI

**Nirali Prakashan**  
Rasdharma Co-op. Hsg. Society Ltd., 'D' Wing Ground Floor, 385 S.V.P. Road  
Girgaum, Mumbai 400004, Maharashtra  
Mobile : 7045821020, Tel : (022) 2385 6339 / 2386 9976  
Email : niralimumbai@pragationline.com

## DISTRIBUTION BRANCHES

### DELHI

**Nirali Prakashan**  
Room No. 2 Ground Floor  
4575/15 Omkar Tower, Agarwal  
Road Darya Ganj, New Delhi  
110002  
Mobile : 9555778814/9818561840  
Email : delhi@niralibooks.com

### KOLHAPUR

**Nirali Prakashan**  
438/2, Bhosale Plaza, Ground Floor  
Khasbag, Opp. Balgopal Talim  
Kolhapur 416 012 Maharashtra  
Mob : 9850046155  
Email : kolhapur@niralibooks.com

### BENGALURU

**Nirali Prakashan**  
Maitri Ground Floor, Jaya Apartments,  
No. 99, 6th Cross, 6th Main,  
Malleswaram, Bengaluru 560003  
Karnataka; Mob : 9686821074  
Email : bengaluru@niralibooks.com

### JALGAON

**Nirali Prakashan**  
34, V. V. Golani Market, Navi Peth, Jalgaon  
425001, Maharashtra  
Tel : (0257) 222 0395  
Mob : 94234 91860  
Email : jalgaon@niralibooks.com


### NAGPUR

**Nirali Prakashan**  
Above Maratha Mandir, Shop  
No. 3, First Floor, Rani Jhanshi  
Square, Sitabuldi Nagpur  
440012 (MAH)  
Tel : (0712) 254 7129  
Email : nagpur@niralibooks.com

### SOLAPUR

**Nirali Prakashan**  
R-158/2, Avanti Nagar, Near Golden  
Gate, Pune Naka Chowk  
Solapur 413001, Maharashtra  
Mobile 9890918687  
Email : solapur@niralibooks.com

marketing@pragationline.com | www.pragationline.com

Also find us on  www.facebook.com/niralibooks