

ISBN: 978-93-93942-18-0

Publishers:

Darshan Publishers, 8/173, Vengayapalayam, Rasipuram, Namakkal, Tamil Nadu, India – 637406.

www.darshanpublishers.com

E-mail: darshanpublishers12@gmail.com

Printers:

Dhazh Computers (Graphic Designer) No: 442- A, 10th East Cross Street, Munthirithoppu, Annanagar, Madurai – 20, Tamil Nadu, India.

E-mail: narennarayanasamy@gmail.com



Copyright @ Darshan Publishers, 2022.

Elements of Physics

First Edition

Dr. P. Venkatachalam Dr. S. Rajalakshmi



Darshan Publishers, Tamil Nadu, India

ISBN: 978-93-93942-18-0

Elements of Physics

First Edition

Dr. P.Venkatachalam, M.Sc., Ph.D

Associate Professor
Department of Physics
Periyar Arts College
(Affiliated to Annamalai University)
Cuddalore, Tamil Nadu.

Dr.S. Rajalakshmi, M.Sc., M.Phil., Ph.D

Assistant Professor
Department of Physics
University college of Engineering Panruti
(A Constituent College of Anna University - Chennai)
Panruti. Tamil Nadu.

DARSHAN PUBLISHERS TAMIL NADU, INDIA

First published in India in 2022

This edition published by Darshan publishers

http://www.darshanpublishers.com

©2022. Darshan Publishers. All rights reserved.

Apart from any use permitted under Indian copyright law, this publication may only be reproduced, stored or transmitted, in any form, or by any means with prior permission in writing of the publishers or in the case of reprographic production in accordance with the terms of licenses issued by the Copyright Licensing Agency.

Copy Right policy is to use papers that are natural, renewable and recyclable products and made from wood grown in sustainable forests. The logging and manufacturing processes are expected to conform to the environmental regulations of the country of origin. Whilst the advice and information in this book are believed to be true and accurate at the date of going to press, neither the authors nor the publisher can accept any legal responsibility or liability for any errors or omissions that may be made. In particular, (but without limiting the generality of the preceding disclaimer) every effort has been made to check quantity of chemicals; however it is still possible that errors have been missed.

ISBN: 978-93-93942-18-0

Price: Rs: 400.00



Published by:

Darshan Publishers, 8/173, Vengayapalayam, Kakkaveri, Rasipuram, Namakkal, Tamil Nadu. India – 637406. www.darshanpublishers.com

E-mail: darshanpublishers12@gmail.com

Printed by:

Dhazh Computers (Graphic Designer) No: 442- A, 10th East Cross Street, Munthirithoppu, Annanagar, Madurai – 20, Tamil Nadu, India. E-mail: narennarayanasamy@gmail.com

Preface

The Universe and the Laws of Physics seems to have been specifically designed for us

By

Stephen Hawking

This book, aimed at the very best students, presents the foundations and frontiers of today's physics. It focuses on the following topics; Properties Of Matter and Sound, Surface Tension and Viscosity, Dynamics Of Rigid Bodies, Atomic physics and Nuclear physics. The aim is to cover these topics in sufficient depth such that things "make sense" to students and they can achieve an elementary working knowledge of them.

.

Dr. P. Venkatachalam Dr. S. Rajalakshmi

Contents

S.No	Chapters	Pages
1	Properties Of Matter and Acoustics	1-34
2	Surface Tension and Viscosity	35-49
3	Dynamics of Rigid Bodies	50-71
4	Atomic Physics	72-127
5	Nuclear Physics	128-167