



# CONCEPTS OF ENGINEERING PHYSICS

**A.K. Shrivastava**



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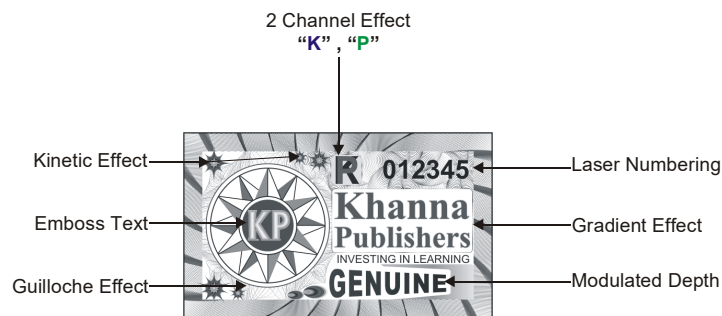
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# PREFACE

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Physics is a mandatory subject for all engineering students. This book, intended as a text book and it caters to the complete syllabus for both Physics-I and Physics-II in the first year Engineering Physics of AICTE and other universities.

The aim of writing this book has been to present the material in a concise and very simple way so that students can grasp the fundamentals. It is earnestly hoped that this book will be found useful by students and teachers both. The author will appreciate any suggestions from teachers and students for the improvement of the book. Problems of appropriate standard are also worked out to help the students to get insight into the subject matter.

This book makes no claim to any originality. I have merely attempted to collect the pertinent material and present it in a form suitable and useful to students and teachers. I am indebted to the authors of the numerous books that I have referred to, I have tried to make the book error-free but some mistakes might have kept in spite of my best effort. I would be grateful if these are brought to my notice for subsequent correction.

I extend my appreciation of Mr. Abhishek Shrivastava for his help in drawing some difficult diagrams.

I am extremely thankful to my wife, Rani for the patience she showed while I was busy completing this effort.

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# CONCEPTS OF ENGINEERING PHYSICS

## About the Author

**Prof. Shrivastava** obtained his Master's degrees in Mathematics and Physics from Ranchi University and Agra University. He joined as Research Fellow in the Department of Mechanical Engineering of Birla Institute of Technology, Mesra, Ranchi in September, 1975. He became Senior Research Fellow in the Department of Space Engineering and Rocketry of the Institute in 1978. He was appointed as Scientist in the same Department in December, 1979 and because of his major academic/research achievements rose to the position of Professor in April, 2000. He joined as Director of Global Care Sangathan's Group of Institutions, Faculty of Engineering & Management, Jabalpur, M.P. in May, 2009 and with the unanimous decision of Management of the Institute. He was appointed as Director Emeritus in July, 2012 Jabalpur, Madhya Pradesh.

Prof. Shrivastava has guided 7 M.E. and 5 Ph.D scholars, has managed 8 Govt. Sponsored Research Projects as Principal Investigator, published 3 books for postgraduate students and has published/presented more than 32 research papers during his long academic career.

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- Dynamics of Fluids
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