



Electromagnetic Field Theory, 1/e

Harish Parthasarathy

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About the Book

Electromagnetic Field Theory is an elementary textbook. Development of the subject in the book follows an order of increasing complexity. It is useful for the undergraduate level students of electronics engineering as well as postgraduate level students of engineering physics wanting to take up problems in the interface of electromagnetism and quantum mechanics.

Salient Features

- ▶ Gauss' and Stokes' theorems.
- ▶ Gauss' and Coulomb's laws of electrostatics developed in both integral and differential frameworks.
- ▶ Computation of static electric and magnetic fields for various situations.
- ▶ Green's function method for the solution of boundary value problems.
- ▶ Problems involving computation of the emf for conductors moving in magnetic fields.
- ▶ Derivation of the 3-D wave equations and Snell's laws of reflection and refraction.
- ▶ Schrodinger's wave mechanics.

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About the Author

Harish Parthasarathy :- Harish Parthasarathy completed his B.Tech in Electrical Engineering from the Indian Institute of Technology, Kanpur in 1990 and his Ph.D. from the Indian Institute of Technology, Delhi in 1994. The author has taught at the Indian Institute of Technology, Bombay, and the Indian Institute of Technology, Kanpur. Since June 2000, he has been in the Division of Electronics and Communication at the Netaji Subhash Institute of Technology where he has been teaching courses on systems, linear algebra and electromagnetic field theory.