



## Design and Analysis of Algorithms

|                         |  |
|-------------------------|--|
| <b>Author :</b>         | Hitesh Singh                                 |
| <b>ISBN 13 :</b>        | 978-93-81068-81-6                            |
| <b>ISBN 10 :</b>        | 93-81068-81-X                                |
| <b>E-ISBN 13 :</b>      | 978-93-81068-81-6                            |
| <b>Edition :</b>        | 1  |
| <b>Pages :</b>          | 416  |
| <b>Type of book :</b>   | Paperback                                    |
| <b>Weight (g) :</b>     | 570.00                                       |
| <b>Year :</b>           | 2013   |
| <b>Language :</b>       | English                                      |
| <b>Publisher :</b>      | Khanna Publishing House                      |
| <b>M.R.P :</b>          | Rs 325.00                                    |
| <b>Categories :</b>     | <a href="#">Computer Science Engineering</a> |
| <b>Condition Type :</b> | New  |
| <b>Country Origin :</b> | India  |

### Product Description

The focus of this book is on how to design good algorithms and how to analyze their efficiency. Various methods/ideas are explained with the help of examples which helps in developing fast and efficient algorithms. This book will also provide the correctness of algorithms and analyzing the algorithms. At the end of the chapters it has questions both solved and unsolved which has come in various Indian universities.



**Khanna Publishing House**

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: [contact@khannabooks.com](mailto:contact@khannabooks.com) | Tel: 011-2324 44 47 - 48 | Mobile: + +91-99109 09320

---

## Table of Contents

---

**Chapter 1:** Algorithm. **Chapter 2:** Analyzing & Design of Algorithm. **Chapter 3:** Asymptotic Growth of Function. **Chapter 4:** Recursion. **Chapter 5:** Hashing. **Chapter 6:** Quick sort. **Chapter 7:** Heap Sort. **Chapter 8:** Sorting In Linear Time. **Chapter 9:** Randomized Algorithm. **Chapter 10:** Elementary Data Structures. **Chapter 11:** Introduction To Tree. **Chapter 12:** Red-Black Tree. **Chapter 13:** AVL Tree. **Chapter 14:** B-Tree. **Chapter 15:** Binomial Tree. **Chapter 16:** Graph. **Chapter 17:** Graph Traversal. **Chapter 18:** Directed Acyclic Graphs. **Chapter 19:** Undirected Graphs. **Chapter 20:** Dynamic Programming. **Chapter 21:** Greedy Algorithm. **Chapter 22:** String Matching. **Chapter 23:** Disjoint-Set Data Structures. **Chapter 24:** Sorting Network. **Chapter 25:** Maximum Flow. **Chapter 26:** Amortized Analysis. **Chapter 27:** Approximate Algorithms. **Chapter 28:** NP-Completeness. **Chapter 29:** Matrix Operation. **Chapter 30:** Backtracking. **Model Questions End-Term Examination**

---

## Authors

---

**Hitesh Singh** Hitesh Singh has done M. Tech from C-DAC, Noida, in CSE. His research area are information security, Steganography, Algorithms and Software Engineering. **Nidhi Arora** Dr. Nidhi Arora is MBA, MCA and doctorate in Computer Science. She is an author of various books and also published research papers in reputed journals.

---

