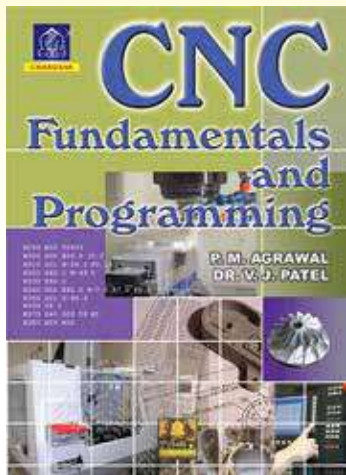


# CNC FUNDAMENTALS AND PROGRAMMING



By

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REVISED  
& ENLARGED

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## ABOUT THE BOOK

This text-book explains the fundamentals of NC/CNC machine tools, operations and part programming which form *essential portion of course on Computer Aided Manufacturing (CAM)*. This book also covers advanced topics such as Macro programming, DNC and Computer Aided Part Programming (CAPP) in detail.

*In this second revised and enlarged edition, all the chapters are reviewed and relevant topics, examples, part programs, sketches, review questions and exercises have been added to enhance the utility of the book.*

*This book is divided into 6 major areas.*

Chapter 1 to 4 cover the history, fundamentals and structure of NC/CNC machine tools.

Chapter 5, 6 and 7 cover turning center programming in detail. Various turning canned cycles are discussed in depth with the help of illustrative examples.

Chapter 8 and 9 are devoted to machining center programming. Drilling canned cycles are discussed in detail with relevant examples.

Chapter 10 and 11 cover advanced topics of subprogramming and macro programming.

Chapter 12 deals with the communications and networking of NC/CNC machine tools.

Chapter 13 and 14 explain the advanced programming using APT and CAD/CAM based programming respectively.

*The book contains:*

- \* 258 Self explanatory and neatly drawn drawings
- \* 62 Solved part programming examples
- \* 37 Part programming exercises
- \* 173 Review questions at the end of all the chapters
- \* 101 Multiple choice questions.

It is the fervent hope of the authors that book will satisfy the needs of the Mechanical, Production, Mechatronics and Automobile Engineering students preparing for the B.Tech/B.E. examinations of all the Indian Universities, Diploma examinations conducted by various Boards of Technical Education, Certificate course as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S. and other similar competitive and professional examinations. It should also be of an immense help to the practising Mechanical Engineers.

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