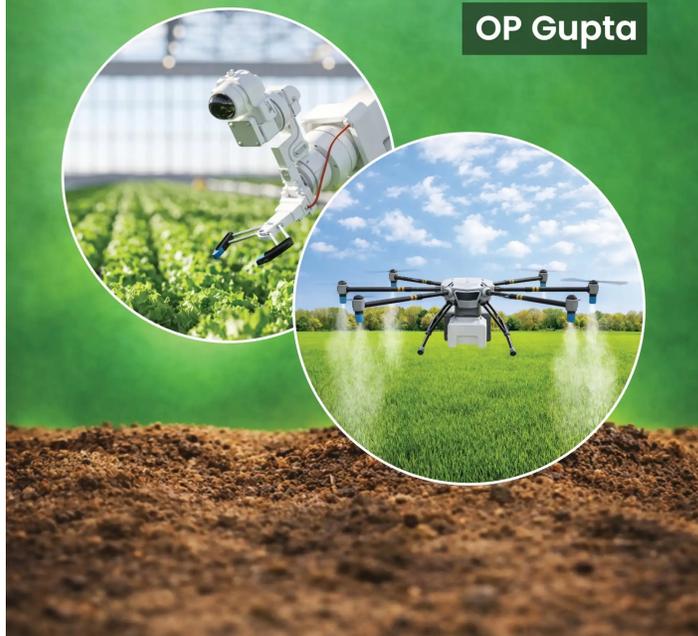


ELEMENTS OF FERTILIZER TECHNOLOGY

OP Gupta



Elements of Fertilizer Technology

Author :	O.P. Gupta
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Product Description

Elements of Fertilizer Technology Authored by chemical engineer Om Prakash Gupta, this book is a comprehensive guide covering the entire fertilizer industry-from soil science to advanced manufacturing. It details the production of key fertilizers like Urea, Nitric Acid, and NPK blends, while addressing environmental challenges like pollution control. Designed for clarity, it is an essential resource for chemical engineering students, faculty, and industry professionals, combining theoretical knowledge with practical tools like objective-type questions. **Salient**

Features

- **Comprehensive Nutrient Analysis:** The book provides an in-depth exploration of primary, secondary, and micronutrients, detailing their specific roles in plant metabolism, growth, and disease resistance
- **Industrial Manufacturing Processes:** It offers technical insights into the production of nitrogenous, phosphatic, and potassic fertilizers, including detailed sections on ammonia synthesis and sulfuric acid manufacture
- **Complex NPK Formulation:** Readers gain a clear understanding of compound and complex fertilizers, including the chemistry behind NPK grades and various granulation techniques used in industrial production.
- **Environmental Stewardship:** A dedicated section focuses on environmental pollution control, covering air emission prevention, wastewater treatment, and the management of hazardous byproducts like fluorides and phosphogypsum.
- **Practical Application Strategies:** The text describes diverse fertilizer application methods-such as broadcasting, placement, and foliar treatment to help maximize nutrient use efficiency and minimize environmental runoff.
- **Sustainable Organic Perspectives:** Beyond synthetic chemicals, the book discusses organic manures and bio-fertilizers, highlighting their role in building soil organic matter and improving long-term soil fertility.
- **Assessment and Exam Prep:** To aid student learning, the book includes over 303 chapters of content supplemented by numerous objective and short-answer questions designed for competitive exam preparation.
- **Technical Glossary and References:** A robust glossary of industry terms and a factsheet on fertilizer application provide quick-reference value for both students and practicing engineers.



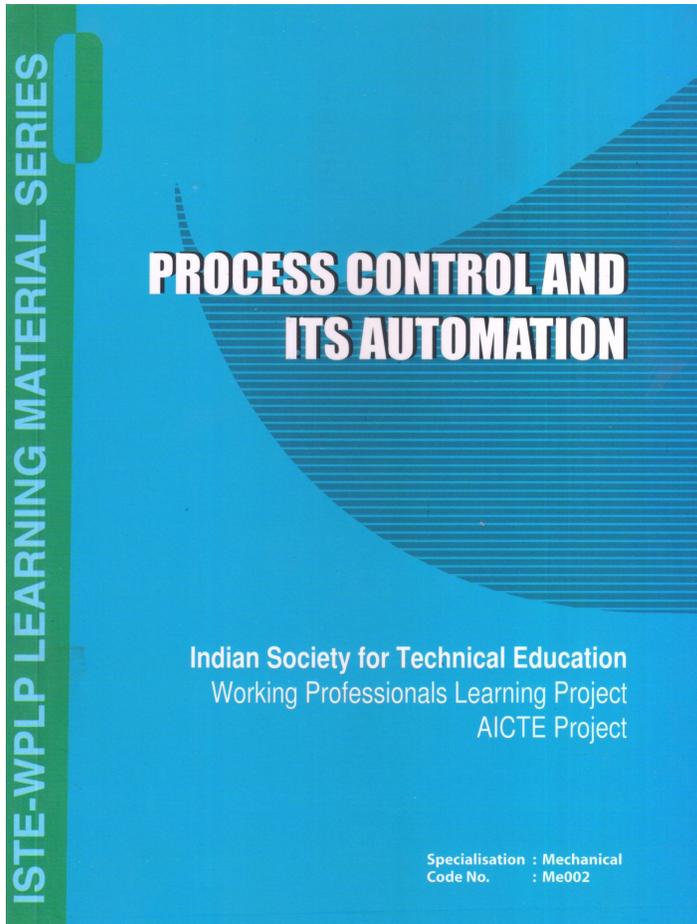
Table of Contents

Preface **SECTION A:** GENERAL TOPICS **SECTION B:** NITROGENOUS FERTILISER **SECTION C:** PHOSPHATE FERTILISER
SECTION D: POTASSIC FERTILISER **SECTION E:** COMPOUND/COMPLEX/ NPK FERTILISER **SECTION F:** APPENDICES

Author

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practicing experience of efficient Energy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T Kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees (Technical), he has also visited England and France on a study tour sponsored by United Nations Development Program (UNDP) to study the scope of energy conservation in steel plants in 1987.





Process Control and ITS Automation

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Product Description

A sound knowledge of the basic principle underlying any particular branch of engineering is fundamental to its practical application in industry and to its further development. A study of the elements of process dynamics and control now forms an essential part of the education of the chemical and process engineer and is of value also the students in allied fields of fluid process technology. Process control technology has demonstrated great through the years. Today, the study of process control systems or automation in various engineering institutes and universities is confined to the theoretical aspects, which can hardly be applied to the real world problems. While focusing on the fundamentals, this book reflects the current advances in the technology associated with the process control, hence useful to the students or practicing engineers when they are faced with practical problems. The main objective of this book is to impart solid application oriented knowledge of the technology spanning the industrial control field. This technology includes control instrumentation, and some specified systems like programmable logic controllers etc. The treatment of programmable logic controllers has also been expanded to reflect how this technology has increased its application based in modern industry. It also incorporates distributed digital control, which is an important field in all industrial control applications. This book also describes intelligent controllers covering model based controllers, fuzzy controllers and neuro controllers. The book introduced the subject of automation, its historical development, basic functions and current trends.

Table of Contents

FOREWORD

PREFACE

Chapter 1: Introduction.

Chapter 2: Fundamentals of Closed Loop Control Technology.

Chapter 3: Controller Tuning Methods.

Chapter 4: Compensator Design in The Frequency Domain.

Chapter 5: Components of Control Loops and Isa Terminology.

Chapter 6: Programmable Logic Controllers and Industrial Automation.

Chapter 7: Distributed Digital Control.

Chapter 8: Intelligent Controllers.

Chapter 9: Plant Parameter Estimation Theory.

REFERENCES



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