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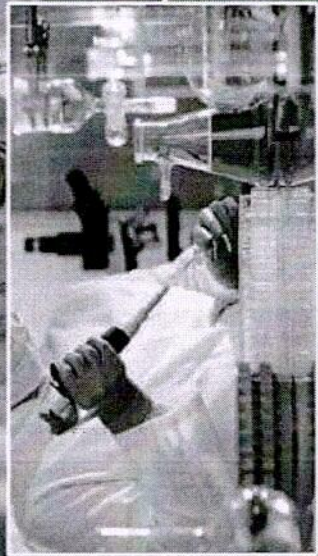
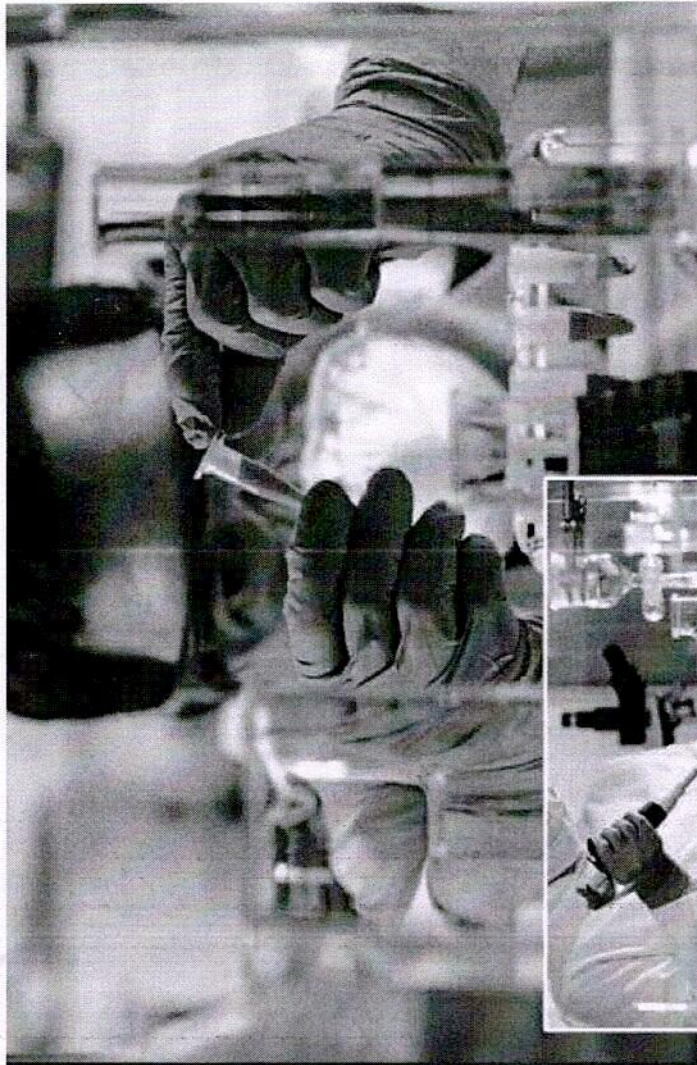
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BRILLIANT INSTITUTE OF ENGINEERING AND TECHNOLOGY
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ENGINEERING CHEMISTRY

FIRST EDITION

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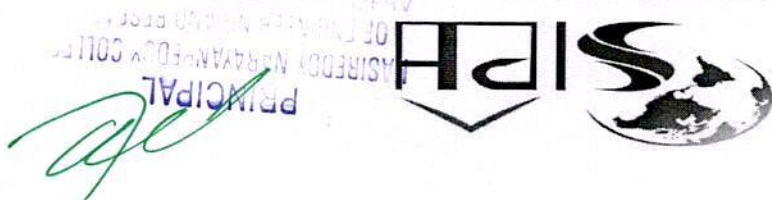
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First and foremost, praises to God, the Almighty, for his immense shower of blessing and kindness throughout the work and has allowed us to finish successfully.

We are sincerely grateful to our Institution Management, Director, Principal, Faculties, Students, and all our family members for providing continuous support and motivation during the work.

We would also like to take the opportunity to express our special thanks of gratitude to the publisher for providing a golden chance by giving us the most awaited platform to showcase our novel work.

Any attempt at any level can't be satisfactorily completed without our students' collaborative effort, resulting in our Book being unique.

ACKNOWLEDGMENT

This book is designed for use in courses on Engineering Chemistry at the undergraduate/postgraduate level, particularly designed for the structured curriculum of Bachelor of arts and science and Bachelor of Chemical Engineering.

Although the contents of the book follows the essential content of complete concepts of Engineering Chemistry is sufficiently broad in scope and rigorous in coverage to satisfy any undergraduate and postgraduate requirements in the field of chemistry.

The book is organized into five sections:

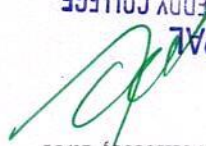
Chapter 1, describes about the water and its treatment, water sources and impurities, water quality parameters, color, odour, turbidity, pH, hardness, alkalinity, TDS, COD and BOD, fluoride and arsenic. Municipal water treatment, primary treatment & disinfection, boiler troubles, treatment of boiled feed water, Ion exchange demineralization and zeolite process etc.,

Chapter 2, covers the fundamentals of nano chemistry, nano particles & materials, types of nano materials, properties & preparation of nano materials, applications of nano materials etc.,

Chapter 3, delivers the phase rule and composites, introduction about phase rule, one component & two component system, introduction about composites, important of composites, reinforcement, properties & applications of Metal matrix composites (MMC), Ceramic matrix composites and Polymer matrix composites, hybrid composites etc.,

Chapter 4, covers the introduction about fuels, classification of fuels, analysis of coal, carbonization, manufacture of metallurgical coke, description about petroleum and diesel, combustion of fuels, etc.,

Chapter 5, includes the energy sources and storage devices, stability of nucleus, nuclear energy, light water nuclear power plant, breeder reactor, solar energy conversion, solar cells, solar cell materials, wind energy, geothermal energy, batteries & its types, detailed description about electric vehicles, fuel cells and super capacitors etc.,


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PREFACE

The analyses and discussion, covering these five sections in the various chapters of this book, are based on the readings recommended for this course. However, wherever required, we have supplemented from other sources reference. A select bibliography is given at the end of the book for reference to the authors cited in the text.

I hope this thoroughly book on Engineering Chemistry will prove handy and useful to students and teachers on the same.



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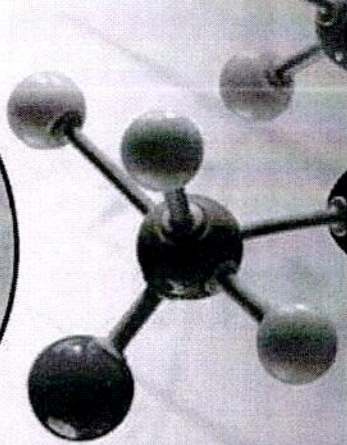
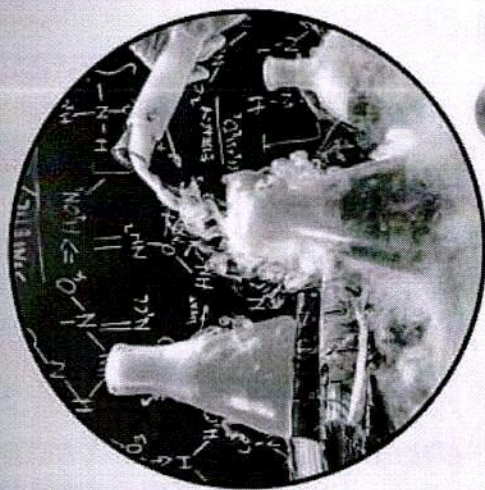
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Preface

The authors' main objective in writing Principles of General Chemistry was to create a book that would introduce students to the joy and importance of chemistry

To better serve the more specialised requirements of engineering students, topics related to the materials science are also introduced. Simple organics structures, nomenclature and reactions are introduced very early in the text to aid in the integration of such materials and whenever practical, both organic and inorganics examples are utilised. The emphasis on ionic and covalent bonding differences in this method improves students' chances of doing well in the organics chemistry course that usually comes after general chemistry.

The authors also made an effort to address material that has typically been placed in boxes and may therefore be seen as unimportant by the students by include it in the text as a teaching tool. The usual first chapter that introduces units, significant figures, conversion factors, dimensional analysis, and other concepts has been condensed in order to jumpstart the subject of chemistry quickly.

In summary, a text that represents a step in the evolution of general chemistry texts toward one that reflects the increasing overlap between chemistry and other disciplines.


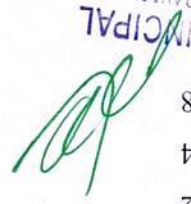

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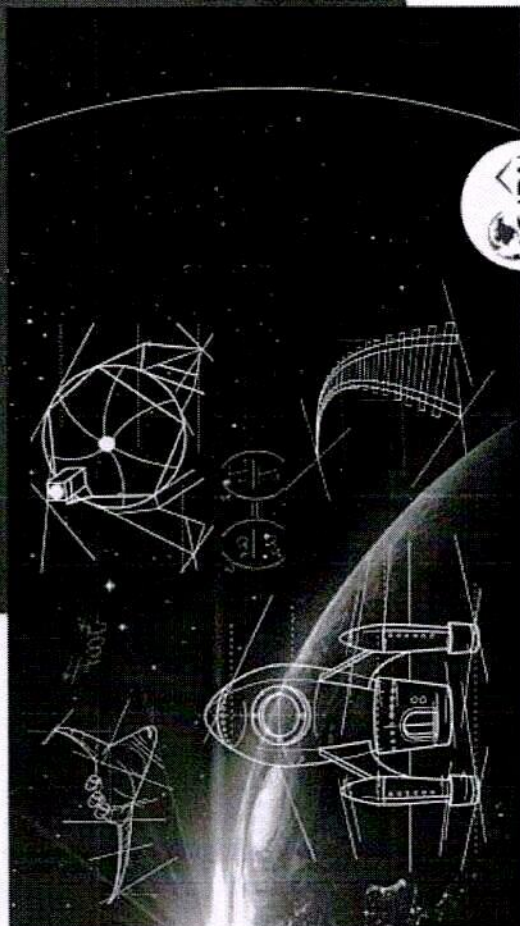


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Chapter 5, includes the Applied Quantum Mechanics, The Quantum Harmonic Oscillator, Quantum Mechanical Barrier Penetration, Quantum Tunneling, Tunneling Microscope, Resonant Diode, Finite potential wells, Bloch's

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Chapter 3, delivers the simple harmonic motion, resonance and its types, waves on string, reflection and refraction of light waves, Total internal reflection, Interference of Waves, Michelson interferometer, Theory of air wedge and experiment, Theory of laser, Einstein's Coefficients of Radiation, Lasers - Population Inversion, Carbon Dioxide Laser, Semi Conductor Laser, etc.,

Chapter 2, covers the Electromagnetic waves concepts includes the Maxwell and wave equation, Energy conservation, Electromagnetic momentum, Intensity and momentum & Radiation pressure, reflection and transmission of electromagnetic waves, Doppler effect etc.,

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This book is designed for use in courses on Engineering Physics at the undergraduate/postgraduate level, particularly designed for the structured curriculum of Bachelor of Technology and Bachelor of Engineering – Computer science & Engineering

PREFACE

theorem for particles in a periodic potential, Basics of Kronig, Penney model and origin of energy bands etc.

The analyses and discussion, covering these five sections in the various chapters of this book, are based on the readings recommended for this course. However, wherever required, we have supplemented from other sources reference. A select bibliography is given at the end of the book for reference to the authors cited in the text

I hope this thoroughly book on Engineering Physics will prove handy and useful to students and teachers on the same.


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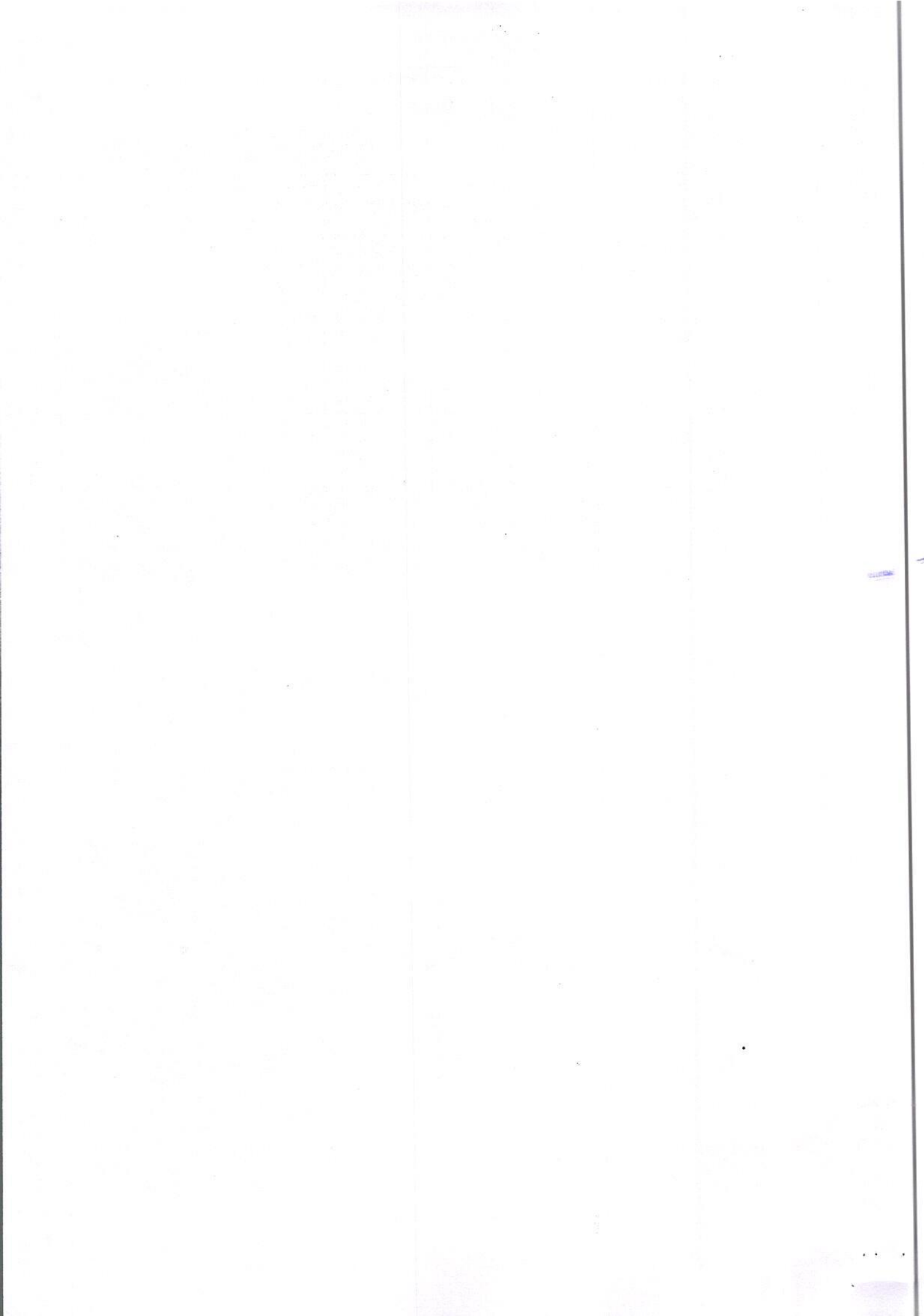


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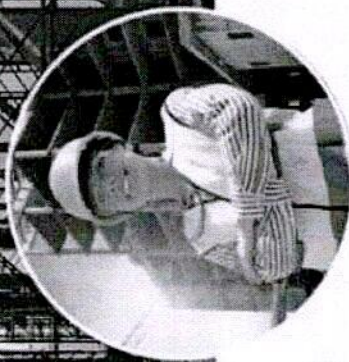
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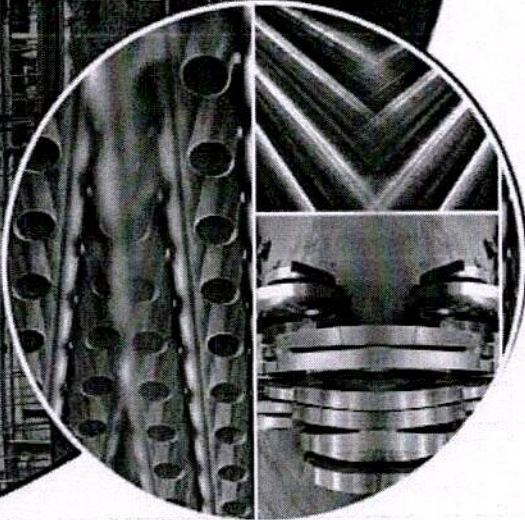
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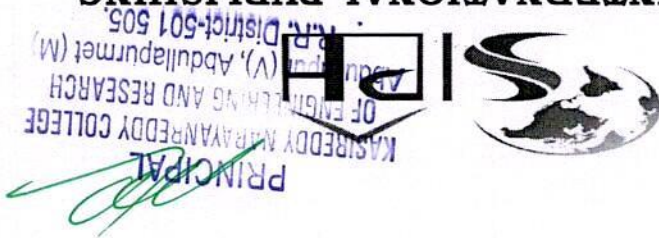
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FUNDAMENTALS OF GEOLOGY AND ITS APPLICATION IN CIVIL ENGINEERING

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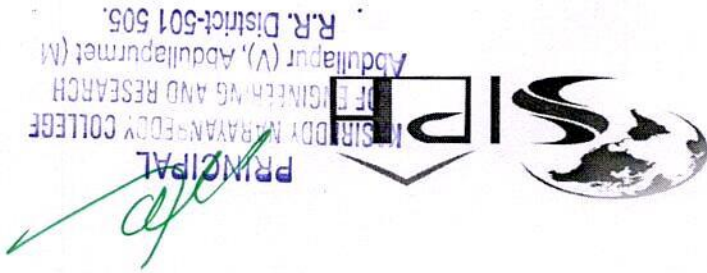
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PREFACE

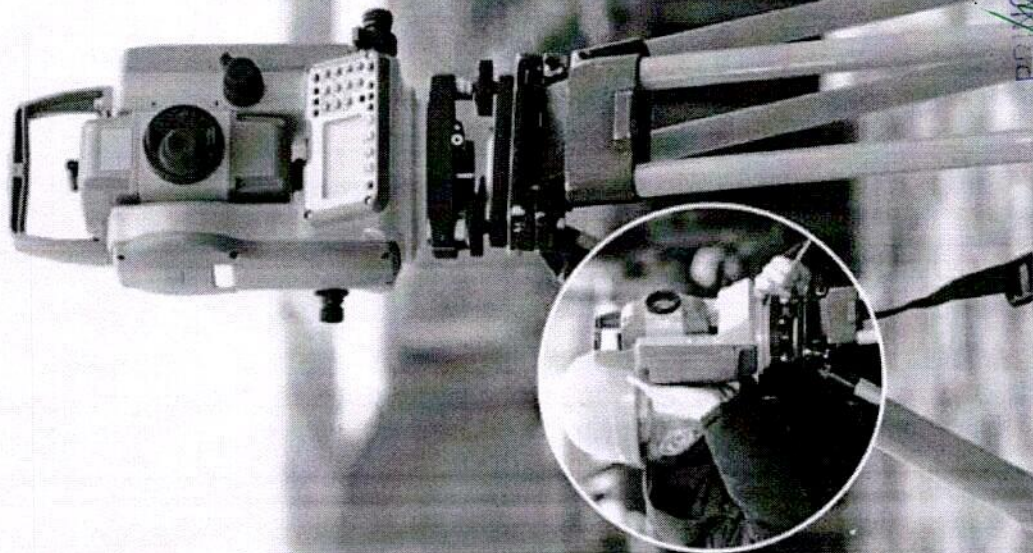
Engineering geology is the application of geology to the engineering study for the purpose of ensuring that the geological aspects related to the site, scheme, construction, process and maintenance of engineering works are recognized and taken in consideration.

Engineering geologists provide geological and geotechnical endorsements, analyzes, and designs related to human development and different kinds of structures. The field of engineering geology is primarily in the field of Earth-structure interactions, or the investigation of how Earth or Earth processes affect human structures and human activities.

Readers should appreciate how and why geologists differentiate between different rocks, not because these differences are important for most engineering purposes but so that they can read a geological report sensibly and with the ability to examine the relevant from the irrelevant information. This book is essentially an introductory text in the fundamentals of Engineering Geology for civil engineers, rather than geology, which is adequate for the needs of their later careers, and on which further courses of engineering geology, soil mechanics or rock mechanics can be based. We have, however, extended the scope of the book beyond what is geology in the strict sense to include engineering applications of geology. This is partly to demonstrate the relevance of geology to engineering, and partly in the expectation that the book will also serve as a useful handbook of facts and methods for qualified engineers and other professionals who use geology. Obviously, students of geology will have done much more reading on geology than the basic geological material covered in this book. They presumably will have done or will do some reading on soil mechanics and rock mechanics. On the other hand, those with an engineering background will have read some soil and rock mechanics, but need some basic geology, hopefully, this book will meet their needs.


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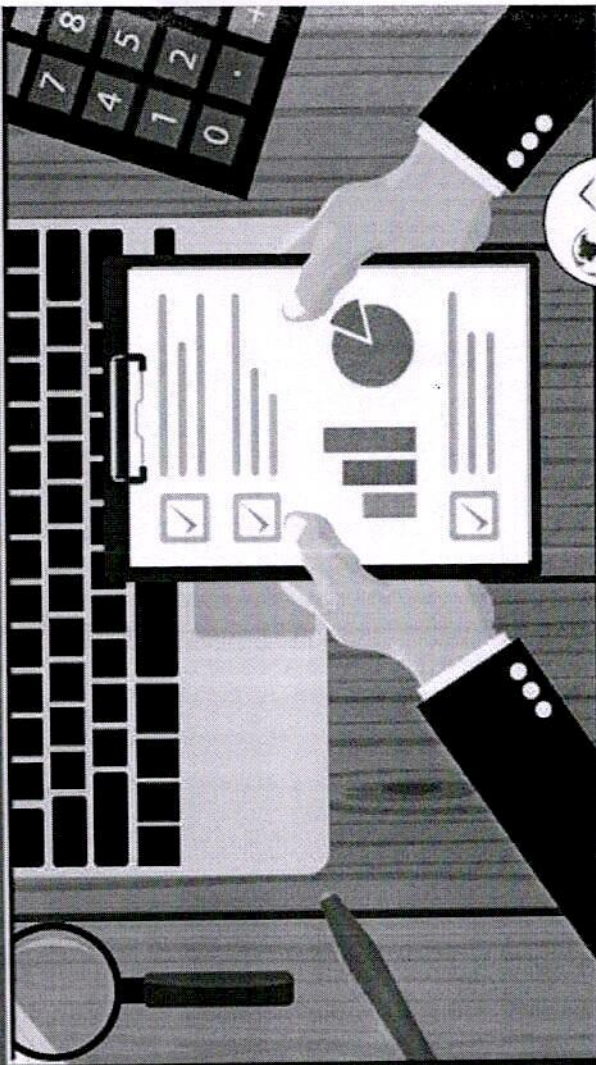
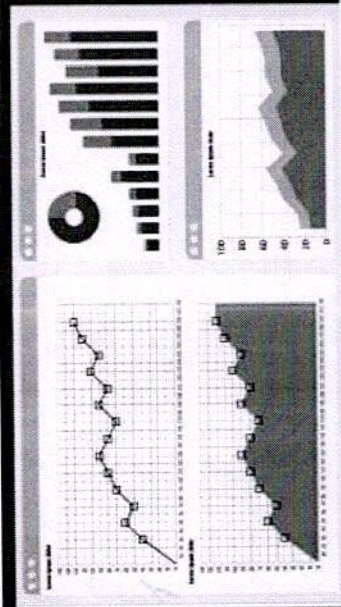
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ESTIMATING AND COSTING - I

ESTIMATING AND COSTING - I



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DETAILED SYLLABUS

UNIT - I

INTRODUCTION

Estimation - Definition of Estimate- Necessity of Estimates - Importance of fair estimation - Duties and requirements of a good Quantity Surveyor - Types of estimates - Approximate and Detailed estimates - Main and Sub Estimates - Revised Estimates - Supplementary Estimates - Maintenance/ Repair Estimates - Taking off Quantities - Trade and Group systems - Merits of Trade/Group systems - Stages in Detailed estimation - Units of measurements for materials and works - Degree of accuracy in measurements Books - Deduction for openings in masonry/plastering/colour washing works - Painting Coefficients - Categories of Labourers - Material requirements for different items of works - Labour requirement for different items of works - Standard Data Book - Task or Out turn of labourers - Cost of materials and wages of labour - Schedule of rates - Revision of rates - Market Rates - Lead - Cost of conveyance - Handling charges - Lump sum and Contingency provisions in Estimates - Abstract Estimates.

APPROXIMATE ESTIMATES

Necessity of Approximate Estimates - Types - Service Unit method - Plinth Area method - Carpet Area method - Cubical Content method - Typical Bay method - Rough Quantity method - Examples for each method - Problems on preparation of Preliminary/Approximate Estimates for buildings projects.

UNIT II

AREAS AND VOLUMES

Areas of regular and irregular sections - Computation of Areas of Irregular figures - End Ordinate rule, Mid Ordinate rule, Average Ordinate rule, Trapezoidal rule, Simpson's rule - Problems - Volumes of regular and irregular solids - Computation of volumes of irregular solids - End Area rule, Mid Area rule, Average area or Mean area rule, Trapezoidal rule, Simpson's or Prismoidal rule.

EMBANKMENTS AND CUTTINGS

Areas of cross sections of embankments of roads, tank bunds etc - Level section and Two level section - Areas of cross sections of cuttings of canals, drains etc - Level Section and Two level section - Determination of Volume of Earth work in Embankment / Cutting with level sections of varying heights/ depths or with two level sections of uniform height/depth.

UNIT III

ANALYSIS OF RATES

Analysis of Rates of preparation Of Data for the following Building works using Standard data book : 1) Cement / Lime mortars; 2) Plain cement concrete in Foundation / Levelling course; 3) Flooring with cement concrete plastered with cement mortar; 4) Flooring with PCC Finishing with ellis pattern cement concrete surface; 5) flooring with cuddapa slabs; 6) Mosaic / ceramic tiles flooring; 7) brickwork in cement mortar in foundation; 8) Brick work in CM in super structure; 9) Brickwork in CM in partition with plastering; 10) Random rubble masonry in CM ; 11) Coursed rubble masonry in CM; 12) Lime – surki concrete in weathering course finished with pressed tiles in CM ; 13) Reinforced cement concrete in slabs (Per unit volume / Unit area) ; 14) R.C.C in Beams ; 15) R.C.C in columns; 16) R.C.C in sunshades; 17) Plastering brick masonry with CM; 18) Pointing stone masonry with cement mortar ; 19) Painting the wood work ; 20) Painting steel work ; 21) White / colour washing the plastered surfaces; 22) Form works (Strutting, centering, shuttering etc) for Slabs / Beams / Coums; 23) Fabrication of steel Reinforcement; 24) A.C Sheet roofing ; 25) Supplying and fixing Rain water pipes – Exercises.

UNIT IV

TAKING OFF QUANTITIES BY TRADE SYSTEM

General - methods of taking off quantities individual wall method – Centre line method – Examples – Entering the dimensions – Standard forms for entering Detailed measurements and Abstract estimates – Rounding of quantities. Preparing Detailed Estimate using Trade System and Take off quantities for all items of works in the following types of buildings. A small residential building with Two/Three rooms with RCC flat roof A small residential building (frames structure) with RCC sloped roof. A Two Storied Commercial Building (frames structure) with RCC flat roof A community with RCC columns and T-Beams A small Industrial building with AC/GI sheet roof on Steel Trusses

UNIT V

TAKING OFF QUANTITIES BY GROUP SYSTEM

General – Standard method of measurement – Taking off and Recording the dimensions – Order of Taking off – Dimension Paper – Entering dimension paper – Spacing dimensions – Descriptions – Cancellation of Dimensions – Squaring Dimensions – Method of Squaring – Checking the Squaring – Casting up the dimensions – Abstracting and Billing – Function of abstract – Use of Abstract sheets – Order of Abstracting – Preparing the Abstract – Checking the Abstract – Casting and Reducing the Abstract – Writing the bill – Method of writing the bill – Checking the Bill.

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111-155	ANALYSIS OF RATES	III
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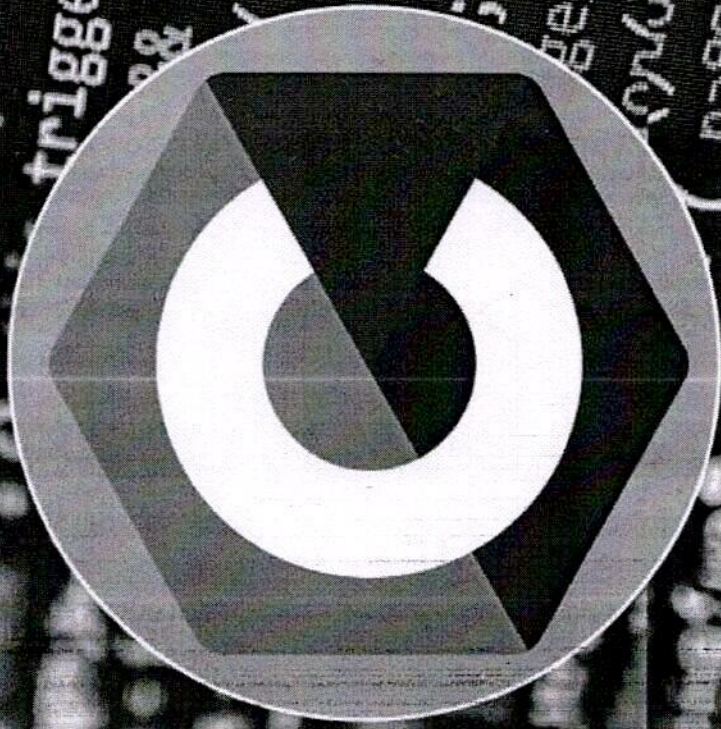
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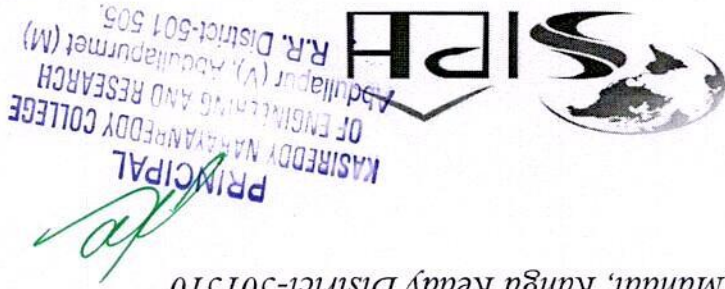
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 shower of blessing and kindness throughout the work and has allowed us to
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 Any attempt at any level can't be satisfactorily completed without our
 students' collaborative effort, resulting in our Book being unique

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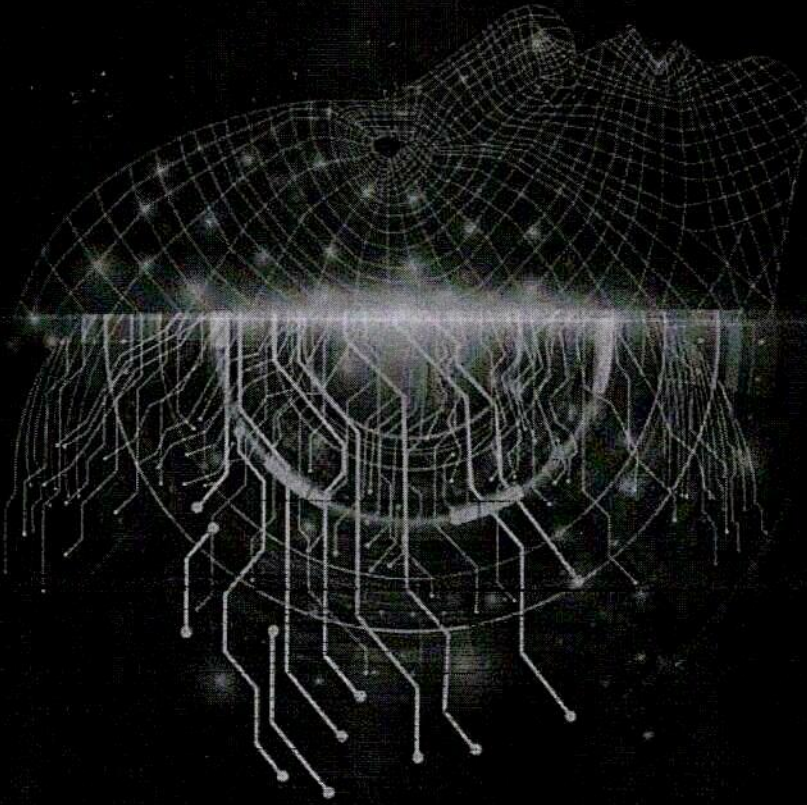
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FOUNDATION OF MACHINE LEARNING



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PREFACE

Machine learning is transforming industries such as healthcare, education, transportation, food, entertainment, and diverse assembly lines, to name a few. It will have an impact on almost every aspect of people's lives, including their houses, transportation, shopping, food ordering, and so on. Because of developments in computer technology, machine learning today is not the same as machine learning in the past. It evolved from pattern recognition and the assumption that computers may learn without being instructed to do specific tasks; artificial intelligence researchers wanted to see if computers could learn from data.

Because models may change autonomously when they are exposed to new data, the iterative feature of machine learning is critical. They use earlier computations to deliver reliable, repeatable assessments and outputs. The same forces that have propelled data mining and Bayesian analysis to unprecedented heights are fueling renewed interest in machine learning. Things like increased data quantity and diversity, less expensive and more powerful computing processing, and low-cost data storage are examples.

This book not only covers the whole scope of the subject, but it also explores its philosophy. This increases knowledge and makes the subject more interesting. Both learners and researchers will find this book incredibly useful.

CHAPTER 1 : It focuses on basic of machine learning systems followed by its perceptrons ,neural network ,feed forward neural network , supervised, unsupervised, and semi-supervised machine learning techniques, learning systems, perspectives and issues, and other topics.

CHAPTER 2 : Discuss the decision tree method and identity, as well as how to avoid the overfitting problem, Neural Network Representation, Problems, Perceptron, Multilayer Networks, KNN and Curse Of Dimensionality

CHAPTER 3 : Discuss and apply the generative learning algorithm to issues such as the Bayes Theorem, Nave Bayes Classifier, and Logistic regression


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CHAPTER 4 : Improve the various types of clustering ,K-Nearest Neighbour Learning, EM algorithm, latent semantic indexing

CHAPTER 5 : Analyze and recommend relevant machine learning techniques for a variety of issues, including the Markov decision process , Bellman Equation, and various models.



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SYLLABUS

UNIT 1 : INTRODUCTION TO MACHINE LEARNING

Learning Systems – Goals And Applications –Aspects Of Developing A Learning Systems- Training Data –Linear Perceptrons As Neurons-Neural Nets –Working –Layers –Activation Function –Feed Forward Neural Network –Limitations – Dbn’s –Deep Learning For Big Data – Local Minima-Rearranging Neurons – Spurious Local Minima –Comparision Of Ai – Machine Learning And Deep Learning

UNIT II – TYPES OF LEARNING

Supervised Learning –Goals And Applications – Unsupervised Learning –Case Study –Classification –Mlp Is Practice –Overfitting –Linear And Non Linear Discriminative –Decision Tree –Probabilistic –K –Nearest Neighbour Learning Algorithm –Curse Of Dimesionality

UNIT III –LEARNING ALGORITHMS

Logistic Regression –Perceptrons - Generative Learning Algorithm – Gaussian Discrimination Analysis –Naïve Bayes-Svm Kernels – Model Selction –Bagging Biisting –Evaluating And Debugging –Classification

UNIT IV – UNSUPERVISED AND LEARNING ALGORITHMS

Clustering – Kmeans Clustering –Em Algorithm – Mixture Of Gaussian – Factor Analysis – Principal And Independent Component Analysis –Latent Semantic Indexing – Spectral Or Sub Space Clustering

UNIT V -REINFORCEMENT LEARNING . IOT AND MACHINE LEARNING


Markov Decision Processes –Bellman Equation –Value Iteration And Policy Iteration –Linear Quadratic Regulation –Q Learning –Policy Versus Value Learning –Pomdps –Iot –Recent Trends –Various Models .Case Study ∴ Spam Filtering Based On Text Classification


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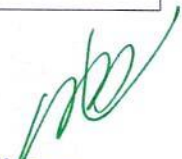
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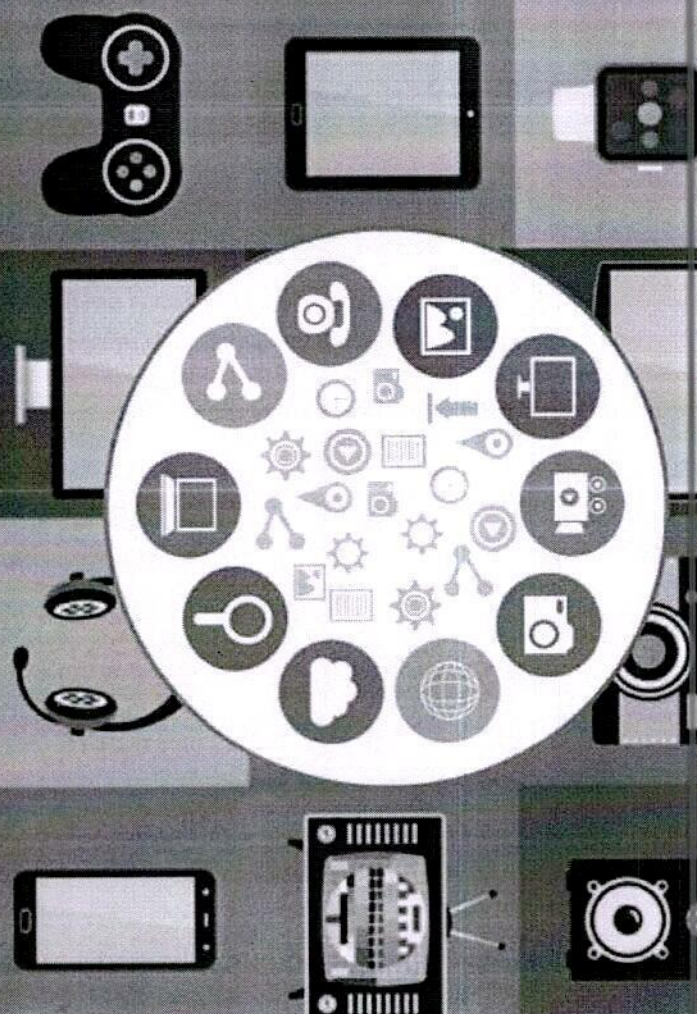
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MULTIMEDIA SYSTEMS DESIGN



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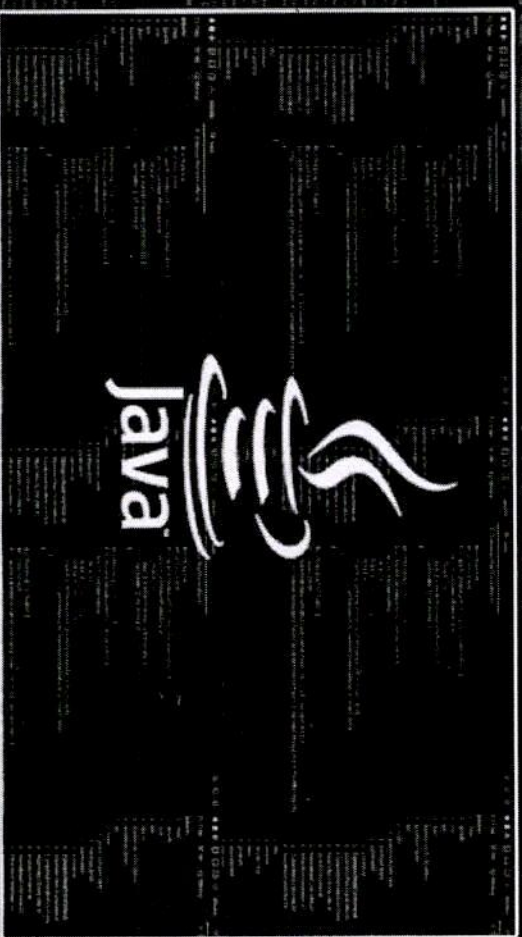
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THROUGH JAVA

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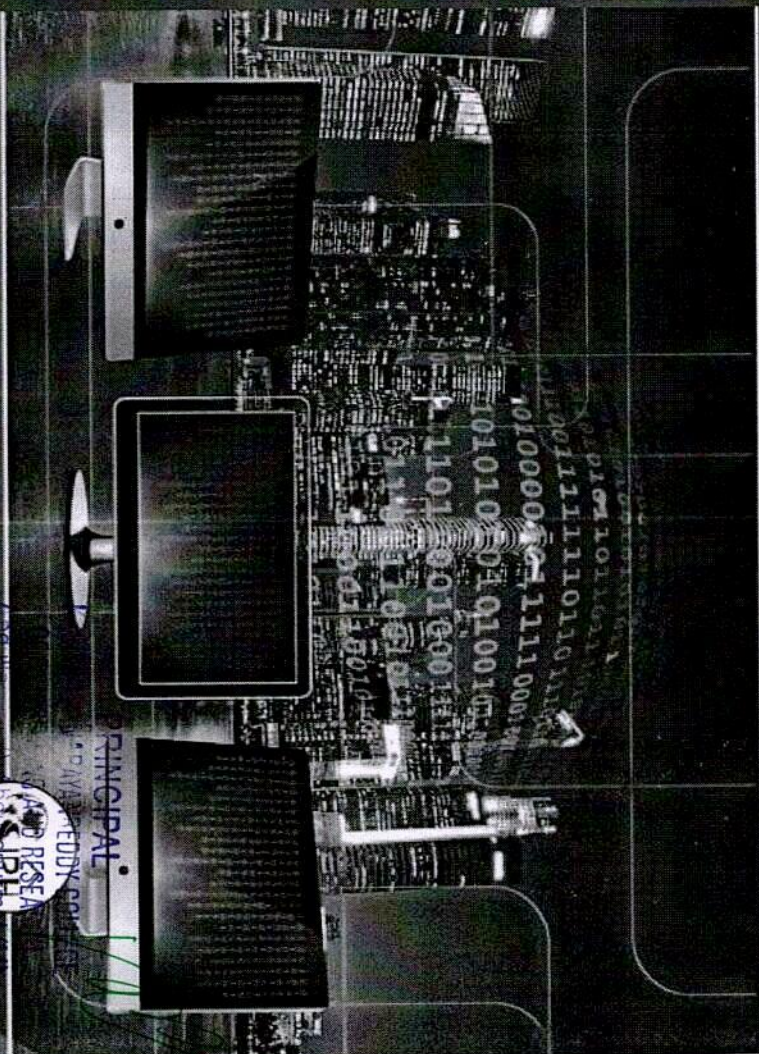
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COMPUTER ORGANIZATION & ARCHITECTURE

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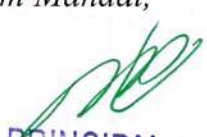
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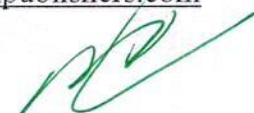
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Any attempt at any level can't be satisfactorily completed without our students' collaborative effort, resulting in our Book being unique.

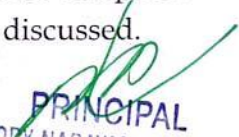


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Preface

The architecture is the programmer's view of a computer. It is defined by the instruction set (language) and operand locations (registers and memory). The first step in understanding any computer architecture is to learn its language. In computer engineering, computer architecture is a set of rules and methods that describe the functionality, organization, and implementation of computer systems. The architecture of a system refers to its structure in terms of separately specified components of that system and their interrelationships. Architecture in the computer system refers to the externally visual attributes of the system. Keeping such things in mind, the material in the book is organized into five parts.

Unit 1 provides the basic structure of a computer system which explains the operational concepts and how the performance of a computer is calculated in detail. The concept of instruction representation and MIPS addressing are distinctly described. Unit 2 gives elaborate information about the arithmetic operations in the computer namely addition, subtraction, multiplication and division. The second part of the unit 2 focusses on the floating-point operations and how they are represented. The first part of unit 3 presents comprehensive facts about the implementation of MIPS and datapath building. The latter part focusses on pipelining, its datapath and control. It also gives a brief explanation about its data hazards and the ways to overcome it. Unit 4 marks about the challenges in parallel processing. The mid part of unit 4 narrates the vector architectures and multithreading. The latter part outlines multiprocessors. Unit 5 delineates the memory hierarchy and the technologies of the memory. A detailed explanation about the cache memory and how the performance of cache memory is calculated, and the course of action required to improve the performance of cache memory is provided. This unit extends to the explanation about the interrupts in a computer program and various bus structure and its operations are discussed.


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SYLLABUS

UNIT I BASIC STRUCTURE OF A COMPUTER SYSTEM

Functional Units – Basic Operational Concepts – Performance – Instructions: Language of the Computer – Operations, Operands – Instruction representation – Logical operations – decision making – MIPS Addressing.

UNIT II ARITHMETIC FOR COMPUTERS

Addition and Subtraction – Multiplication – Division – Floating Point Representation – Floating Point Operations – Subword Parallelism.

UNIT III PROCESSOR AND CONTROL UNIT

A Basic MIPS implementation – Building a Datapath – Control Implementation Scheme – Pipelining – Pipelined datapath and control – Handling Data Hazards & Control Hazards – Exceptions.

UNIT IV PARALLELISIM

Parallel processing challenges – Flynn's classification – SISD, MIMD, SIMD, SPMD, and Vector Architectures – Hardware multithreading – Multi-core processors and other Shared Memory Multiprocessors – Introduction to Graphics Processing Units, Clusters, Warehouse Scale Computers and other Message-Passing Multiprocessors.


UNIT V MEMORY & I/O SYSTEMS

Memory Hierarchy – memory technologies – cache memory – measuring and improving cache performance – virtual memory, TLBs – Accessing I/O Devices – Interrupts – Direct Memory Access – Bus structure – Bus operation – Arbitration – Interface circuits – USB.



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ABSTRACT

This paper examines the basics of cash management for financial management and financial reporting purposes. This study makes use of descriptive research method to examine the importance, essence, influence, relationship, and impact of cash management on financial management and financial reporting. It establishes the strong impact of cash management on corporate survival, linkage to practically every account on financial report, maximization of shareholders' wealth, fraud prevention and detection, and liquidity enrichment. It also ascertains the need for the use of net cash flows as a measure of performance.

Organization's should give cash management serious attention and make it a strategic partner, and should maintain a dedicated cash module for cash management because accrual accounting is not adequate for cash management. Regulatory bodies should enhance disclosure requirements in respect of cash and cash equivalents to enhance transparency and prevent creative cash management.

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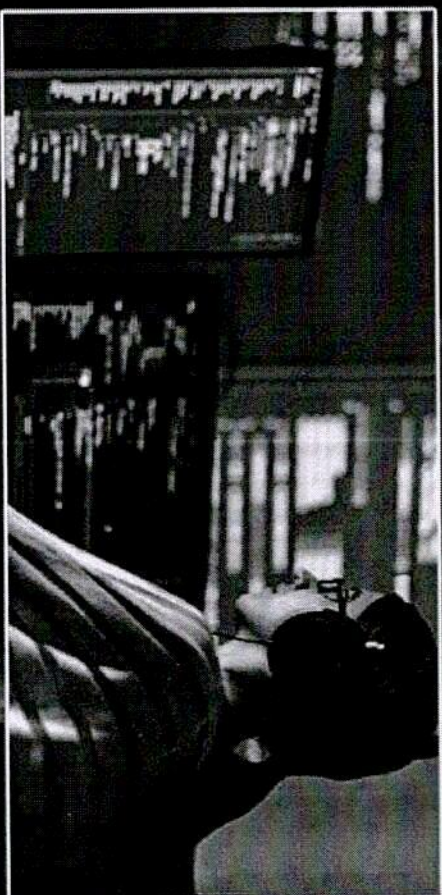


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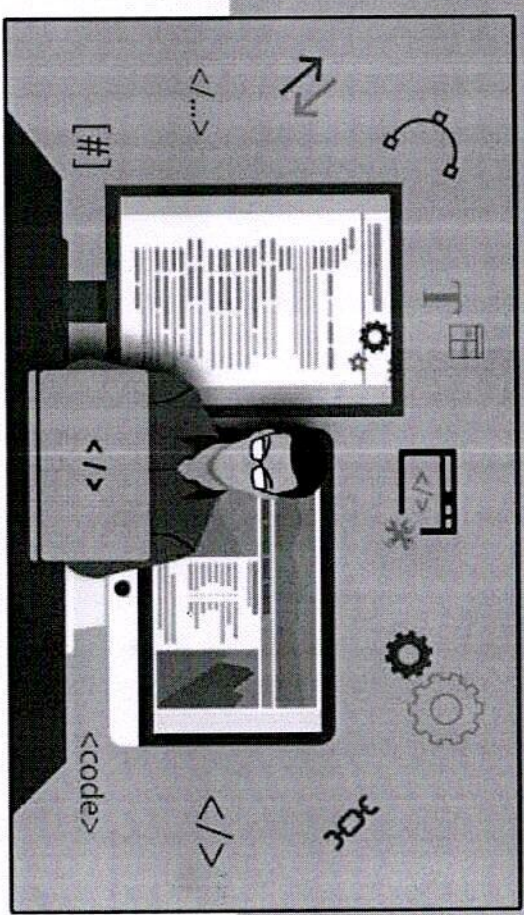
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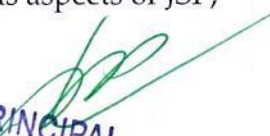
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Preface

Internet has become the number one source to information, and many of the traditional software applications have become Web Applications. The methods by which computers communicate with each other through the use of markup languages and multimedia packages is known as web technology. Web Applications have become more powerful and can fully replace desktop application in most situations. It involves communication across the web, and create, deliver or manage web content using hypertext markup language (HTML).

Web development refers to the building, creating, and maintaining of websites. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e. websites. The part of a website that the user interacts directly is termed as front end. It is also referred to as the 'client side' of the application. Backend is the server side of a website. It is used to store and arrange data.

This book enables the readers to understand web essentials, basic internet protocols, HTML tags and attributes, layout elements, forms including features from the current specifications for HTML5, CSS3 including selectors and rules, classes. This book gives demonstration about the document object model and of how to complete basic page manipulation using JavaScript. This book covers various aspects of JSP, XML, AJAX and web Services


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SYLLABUS

UNIT I WEB SITE BASICS AND HTML

Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols -The World Wide Web-HTTP request message-response message-Web Clients Web Servers. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative URLs-Lists-tables-Frames-Forms-HTML 5.0.

UNIT II CSS AND CLIENT SIDE SCRIPTING

Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML- Style Rule Cascading and Inheritance-Text Properties-Box Model Normal Flow Box Layout-Beyond the Normal Flow-CSS3.0. Client-Side Programming: The JavaScript Language-History and Versions Introduction JavaScript in Perspective-Syntax-Variables and Data Types-Statements-Operators-Literals-Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.

UNIT III SERVER SIDE SCRIPTING

Host Objects: Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels-Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating Noncompliant Browsers Properties of window. Server-Side Programming: Java Servlets- Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle- Parameter Data-Sessions-Cookies-URL Rewriting-Other Capabilities-Data Storage Servlets and Concurrency- Databases and Java Servlets.

UNIT IV JSP AND XML

Separating Programming and Presentation: JSP Technology Introduction-JSP and Servlets-Running JSP Applications Basic JSP-JavaBeans Classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Databases and JSP. Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration-Namespaces- DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data: XPATH-Template based Transformations: XSLT-Displaying XML Documents in Browsers.

UNIT V AJAX AND WEB SERVICES

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods. Web Services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web Service Client-Describing Web Services: WSDL-Representing Data Types: XML Schema-Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files.

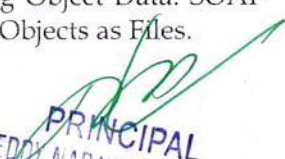
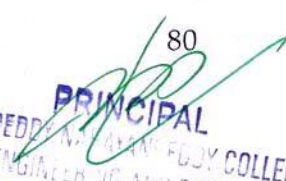

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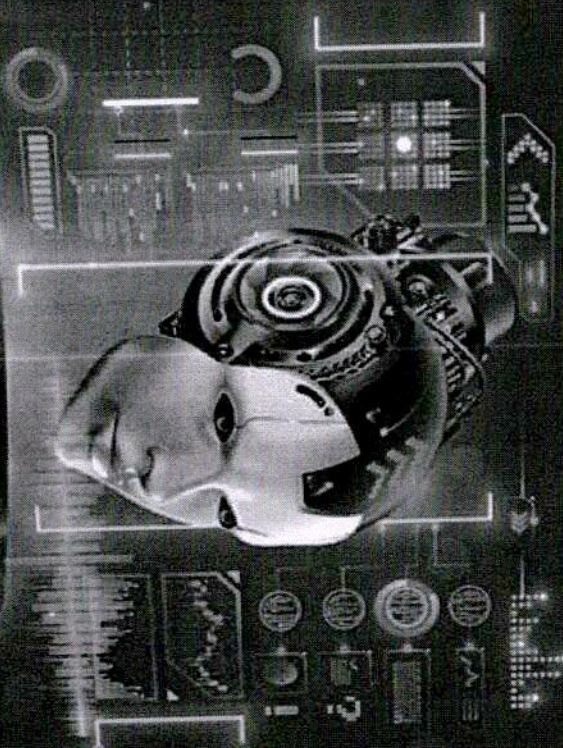
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PREFACE

This book is designed for use in courses on Artificial Intelligence and Machine Learning Concepts at the undergraduate/postgraduate level, particularly designed for the structured curriculum of Bachelor of Technology and Bachelor of Engineering – Computer science & Engineering.

Although the contents of the book follows the essential content of complete concepts of Artificial Intelligence and Machine Learning Concepts is sufficiently broad in scope and rigorous in coverage to satisfy any undergraduate and postgraduate requirements in the field of IT/CSE.

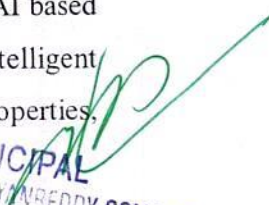
The book is organized into five sections:

Section 1, Describes about the Introduction to Learning, Types of Machine Learning, Supervised Learning, The Brain and the Neuron, Design a Learning System, Perspectives and Issues in Machine Learning, Concept Learning Task, Concept Learning as Search, Finding a Maximally Specific Hypothesis, Version Spaces and the Candidate Elimination Algorithm, Linear Discriminants & Perceptron, Linear Separability & Linear Regression etc.,

Section 2, Covers the Multi-layer Perceptron, Going Forwards & Backwards: Back Propagation Error, Multi-layer Perceptron in Practice, Examples of using the MLP, Overview of Deriving Back-Propagation, Radial Basis Functions and Splines, RBF Network, Curse of Dimensionality, Interpolations and Basis Functions, Support Vector Machines etc.,

Section 3, Delivers the Learning with Trees, Decision Trees, Constructing Decision Trees, Classification and Regression Trees, Ensemble Learning, Boosting, Bagging, Different ways to Combine Classifiers, Probability and Learning, Data into Probabilities, Basic Statistics, Gaussian Mixture Models, Nearest Neighbor Methods, Unsupervised Learning, K means Algorithms, Vector Quantization, Self Organizing Feature Map etc.,

Section 4, Includes the Introduction to artificial intelligence, AI uses, AI based prototype model, future of artificial intelligence, characteristics of intelligent agent, structure of intelligent agents, agent environment & its properties.


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application of intelligent agent, typical intelligent agent, problem solving approach to typical AI problems etc.,

Section 5, Includes the problem solving methods, search strategies, uniformed search strategies, breadth first search, uniform cost search, depth first search, depth limited search, iterative deepening DFS, bidirectional search, informed strategies, best first search, greedy best first search, A* search, heuristics and impact of heuristic accuracy on performance etc.,


The analyses and discussion, covering these five sections in the various chapters of this book, are based on the readings recommended for this course. However, wherever required, we have supplemented from other sources reference. A select bibliography is given at the end of the book for reference to the authors cited in the text I hope this thoroughly book on Artificial Intelligence and Machine Learning Concepts will prove handy and useful to students and teachers on the same.




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ABSTRACT

Accounts Receivable is a transactional account that's the account of a consumer who owes money to someone, enterprise or government for goods and offerings to clients. In maximum change institutions, that is usually achieved by sending an invoice and an bill or an electronic mail to the patron, who in turn must pay it within a positive time period, during the period of credit assessment, or referred to as commission .The name "bills receivable" is described as "a debt owed to the customer by the commercial enterprise from the sale of products/offers" purchased day by day. Accounts receivable are a large part of a robust modern-day asset. Accounts receivable can seek advice from accounts receivable, exchange lenders or notes receivable.

When the enterprise offers the goods and does now not acquire money immediately. organization has given the client the agree with evaluation. So, accounts receivable/payable decide what the organisation has to pay in the near destiny. It is therefore appropriate that the maximum ignorant customers, the corporation affords the customer with loose financing to entice him to buy the business enterprise's products/offers.

He believes that marketing is an vital mechanism this is the gateway to the motion of products thru the stages of production and distribution to customers. The organization offers an exchange mortgage to guard its sales from competition and permit customers to purchase its merchandise on fair and competitive phrases. When the Company sells its services or products and does no longer acquire instant price, the Company is otherwise considered to have an extended credit rating.



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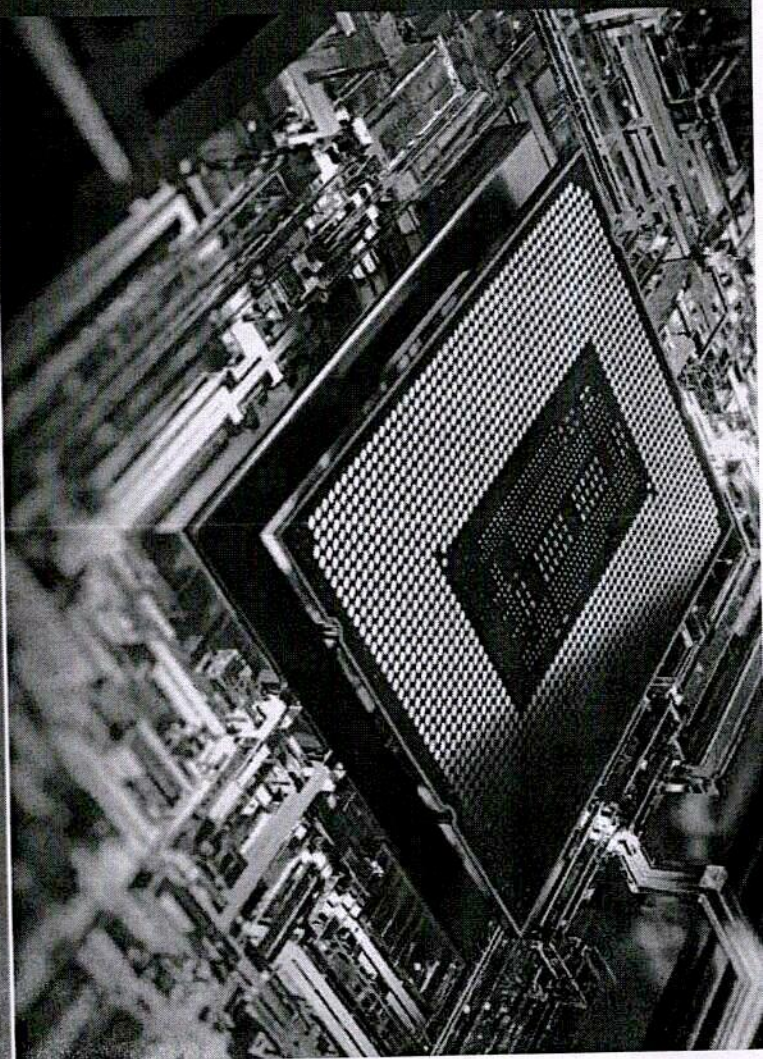


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SYLLABUS

UNIT I 8085 MICROPROCESSOR ARCHITECTURE AND ASSEMBLY LANGUAGE PROGRAMMING

Microprocessors- Instruction set and computer languages-8085 programming model-Instruction classification- Instruction set- 8085 MPU- Example of 8085 based microcomputer-How to write, assemble and execute an assembly language program

UNIT II PROGRAMMING WITH 8085

Introduction to 8085 instruction set- Data transfer operations- Arithmetic operations- Logic operations- Branch operations - Programming Techniques: Looping, counting and Indexing- Addressing modes

UNIT - III 8086 MICROPROCESSOR ARCHITECTURE AND INTERFACING

Intel 8086 Microprocessor - Architecture - Assembly Language Programming - Linking and relocation - Stacks - Procedures - Macros - Interrupts and Interrupt Routines -Byte & String Manipulation. Advanced Processors: Intel's 80X 86 family of processors

UNIT - IV PROGRAMMABLE PERIPHERAL INTERFACE AND MICROCONTROLLER

Intel 8255- Sample and Hold Circuit and Multiplexer- Keyboard and Display controller (8279)- Programmable Interval timers (Intel 8253, 8254)- 8051 Microcontroller architecture-Memory Organization- Special Function Registers.

UNIT V RISC AND ARM PROCESSORS FUNDAMENTALS

The RISC revolution - Characteristics of RISC Architecture - The Berkeley RISC - Register Windows - Windows and parameter passing - Window overflow - RISC architecture and pipelining - Pipeline bubbles - Accessing external memory in RISC systems - Reducing the branch penalties - Branch prediction - The ARM processors - ARM registers.

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MICROWAVE AND MILLIMETER WAVE CIRCUITS AND SYSTEMS

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PREFACE

Abundance technical books on microwave and millimeter wave communication are available in the market and online, then why this kind of book again? Well, here is the emphasizing answer to this- it is not another book of that kind which is available in any forms nowadays!! This is the book which takes the reader from the basics of microwave communication, where the student's hunt of such a book comes to an end here. The book's overall approach, refined by the authors' experience with large sections of undergraduates from various universities, addresses the challenges of teaching and learning when prerequisite knowledge varies greatly from student to student. This book can be read by ordinary people with a limited, if any, scientific background. Throughout, the book has been written with this audience in mind. At times, the science presented might seem overwhelming: Some chapters are very light and can be easily understood by a layperson. One of the important features of this book is that it does not have a textbook structure when the chapters, in order to be understood, need to be read in the sequence given. In fact, you can start the journey from any chapter, based on your interests, tastes, and preferences. But I do hope that the information and knowledge presented here will become a wake-up call for the students who were eager to know the basics of microwave and millimeter wave circuits theory.

Spread across five simpler units for better understanding the contents, Chapter 1 illustrates the overview of the microwave transmission and outlines the basic concepts right from general microwave communication. It also briefly describes about the various modes and network parameters.

Chapter 2 describes about the various microwave passive devices, which includes the detailed explanation of their operation and construction. This chapter also examines the use of various active microwave devices along with the detailed explanation of construction and network parameters.

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Chapter 3 starts with the introduction to wave propagation in microstrip lines. It also explains about the various discontinuities in waveguides and the obstacles. Furthermore, detailed description of microwave system is also provided along with the fundamental parameters.

Chapter 4 focuses right from the beginning in the periodic structures and their analysis. Later the paraphrasing shifts to the microwave filters and their implementation and transformations.


Chapter 5, the last chapter of the book, focuses on the importance of microwave and millimeter wave integrated circuits in modern technology. It provides an in-depth discussion about the applications and design considerations.

Even though extreme care has been taken while editorializing this book manuscript, there are chances that a few hidden errors that might have crept inadvertently. It's much obliged if these are pointed out to the author. Fundamental to a book's effectiveness is classroom use and feedback suggestions to improve the quality of the contents of the book will be highly appreciated.

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ABSTRACT

Employee Motivation is essentially about commitment to doing something. In the context of a business, motivation can be said to be about "The will to work". Motivation is an internal drive that activates behavior and gives its direction. The word motivation is coined from the Latin word "movere", which means to move. The term motivation theory is concerned with the process that describes why and how human behavior is activated and detected. It is regarded as one of the most important areas of the study in the field of organizational behavior.

The purpose of this Employee Motivation Master of Business Administration Project study is to examine Motivation of employees. Every organization needs to have well motivation in employees to perform their work good in the organization when the employee feels good about their jobs, certain factors tend to consistently related to job satisfaction.

This MBA Project theory provides an explanation of job satisfaction and the comfortableness of an employee in the organization. My study is to examine the various factors of motivation in employees, to know the level of motivation in employees of the company and to provide practical suggestions for the improvement of organization's performance. The study analyses the opinion of employees on motivational factors at work place and basing on the response, the statistical methods like Chi-rectangular check and Percent analysis, scaling approach are applied.

A questionnaire was designed which included questions regarding motivation in employees their satisfaction and dissatisfaction. Accordingly, 100 people have been selected at random from all the departments of the organization and feedback forms (questionnaire) have been obtained. Through this analysis, interpretations were done accordingly.

The results of the study are very useful to every company which needs to manage its employees and make them saisfied at work place. The study helps in retaining the employees

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