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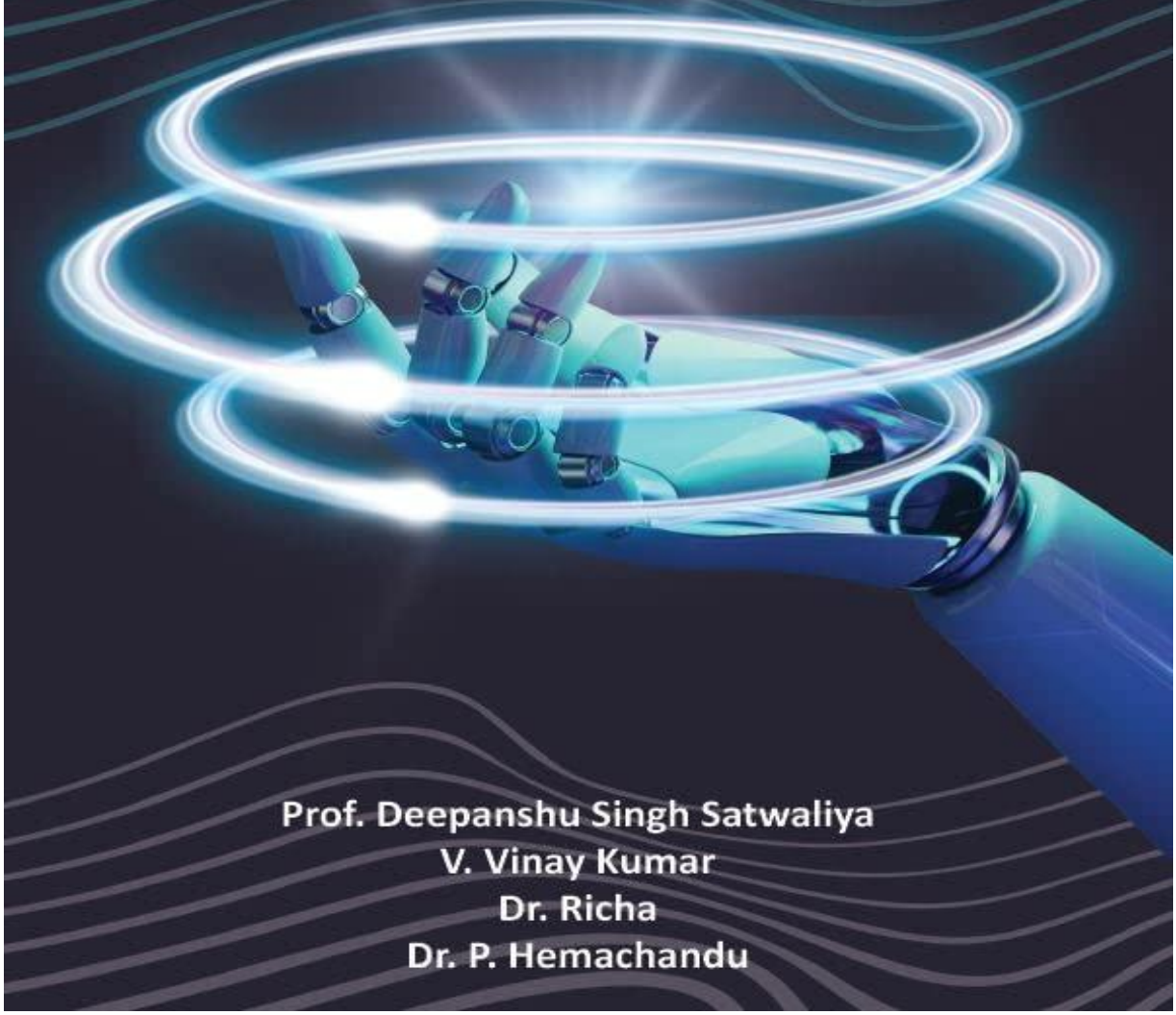

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Artificial Intelligence Revolution

Prof. Deepanshu Singh Satwaliya
V. Vinay Kumar
Dr. Richa
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Prof. Deepanshu Singh Satwaliya *(B.Tech, M.tech) is an Assistant Professor in FET at Jain University. He has completed B.Tech in Computer Science and Engineering from F.G.I.E.T, Raebareli (Govt. College) under A.K.T.U. Then, he has completed M.Tech in Computer Science and Engineering from NIT Hamirpur. He has 3 Years of teaching experience. Machine Learning is an expertise area of Prof. Deepanshu Singh Satwaliya. He has published 3 Patents in the last 1.5 years.*

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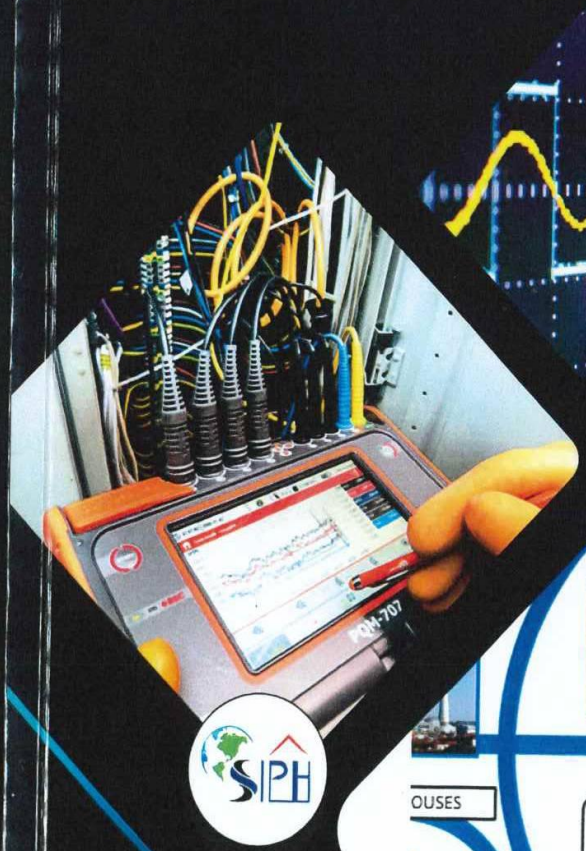

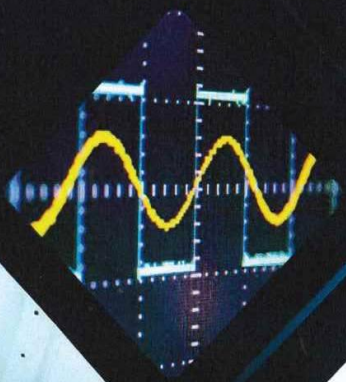

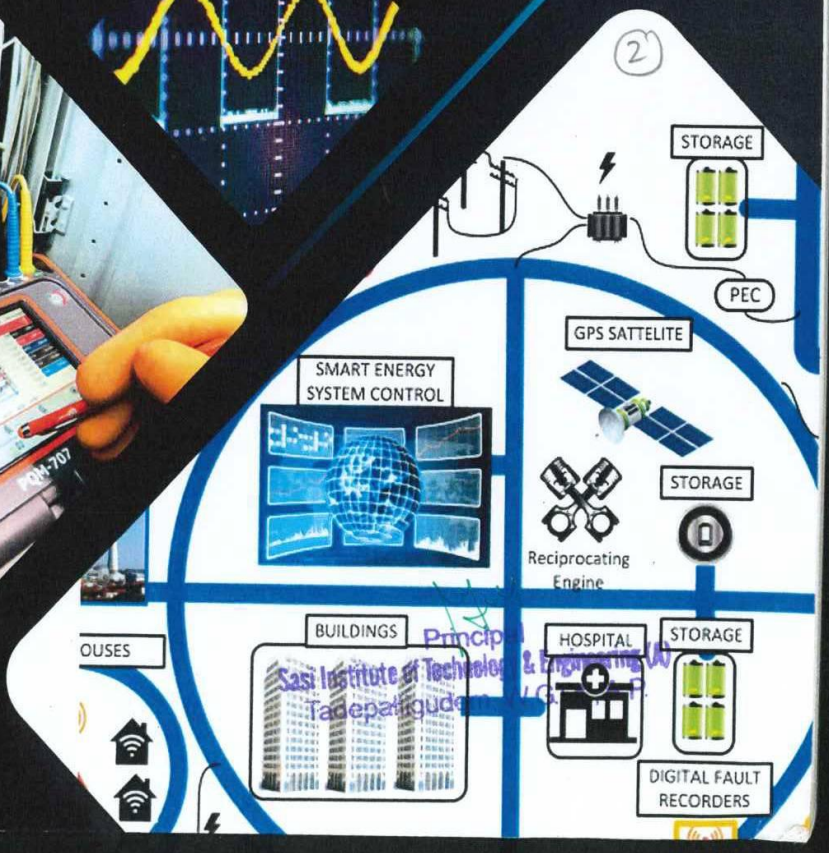

POWER QUALITY IN ELECTRICAL SYSTEMS

AUTHORS

MS. J. HANEST ANGEL PRIYADHARSHINI

MRS. K. BHANUTEJA

DR. RAJESH THIPPARAJU

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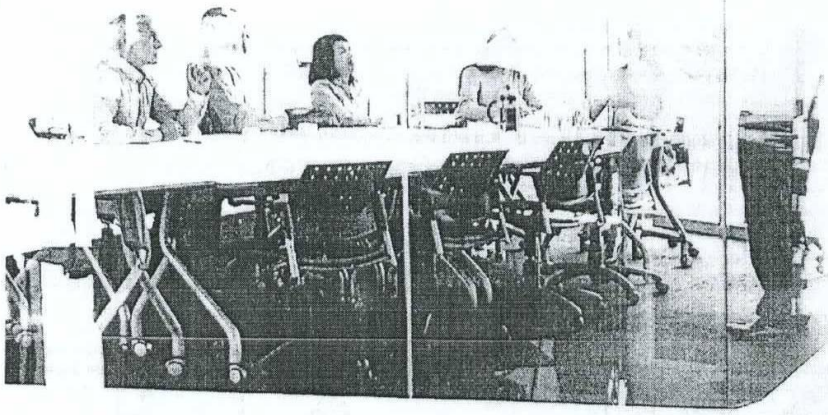

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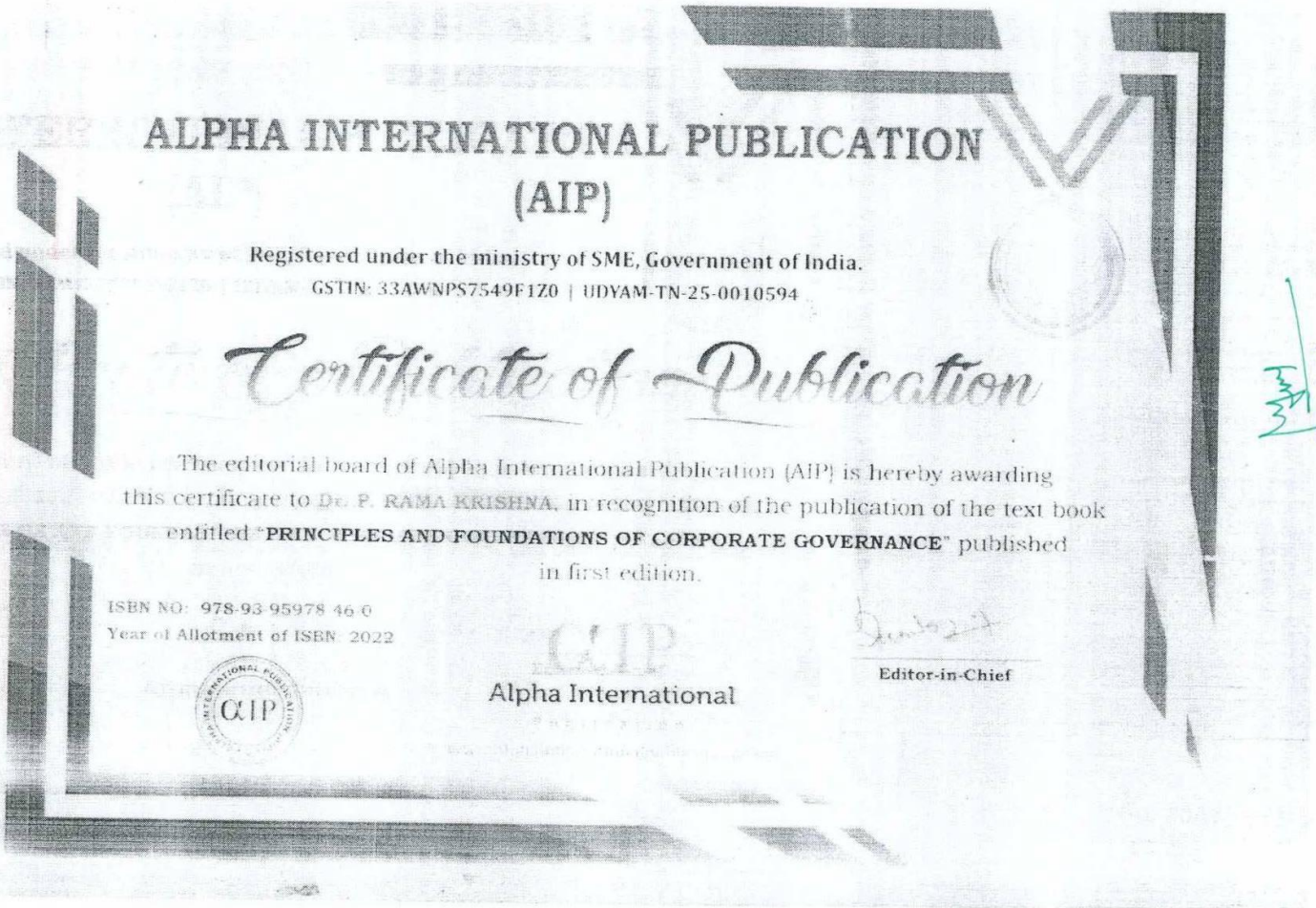

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Chapter 12
Mineral Chemistry of Ilmenites as a Source Indicator for Coastal Sediments Between Vamsadhara and Nagavali River Mouth, North Coastal, Andhra Pradesh

Ch. Ravi Sekhar, K. S. N. Reddy, K. N. Murali Krishna, K. Bangaku Naidu, P. Ganapathi Rao, K. Veera Krishna, and A. Lakshmi Venkatesh

Abstract Ilmenites come from coastal sediments between the mouths of the Vamsadhara and Nagavali rivers, north coastal Andhra Pradesh, was studied using ilmenite end-member components. Ilmenite mineral chemistry has been studied from various environments to understand provenance by electron microprobe analyzer (EPMA). This study reveals that the ilmenite with the end-member components of Fe-Ti oxides is mainly ilmenite and has minor proportions of hematite, geikielite, and pyrophanite. The end-member compositions of Fe-Ti oxides and manganese/magnesium ratio indicate all the ilmenites of beach, dune, and estuarine environments are from the pyroxene granulites, khondalites, basic charnockites, and migmatites. Ilmenites are ferrian types and Ti/ (Ti + Fe) ratio is <0.5 indicating these are recently contributed to placer deposits. Ilmenites are mainly concentrated in fine fraction (+230) 51.50%. Ilmenite contains average TiO_2 content is 52% with a low concentration of trace elements.

Keywords Ilmenite · Mineral chemistry · Provenance · Charnockite · Khondalite · EPMA

C. Ravi Sekhar (✉) · K. S. N. Reddy · K. Veera Krishna · A. Lakshmi Venkatesh
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A Bayesian Approach to Evaluate Surface Water Quality in the Upper Krishna Basin, India(Conference Paper)

Tirupathi, C., Shashidhar, T., Murali Krishna, K.N.

[a]Department of Civil Engineering, Sasi Institute of Technology and Engineering, Tadepalligudem, 534101, India
[b]Department of Civil Engineering, Indian Institute of Technology Hyderabad, Hyderabad, 502285, India

Abstract

The Krishna river is the major source for the domestic, industrial, and agricultural needs of many cities, towns, and villages in its passage. However, the water in the basin was getting contaminated over the last two decades due to point and non-point source pollutants in the basin and it affects the river ecosystem. Thus, understanding the spatial variation of water quality across a river plays a vital role in controlling water pollution and public health safety. Therefore, the present study aims to analyze the spatial distribution of water quality across the Krishna river basin (KRB), India. This study developed a water quality model with a Bayesian approach to assess water quality at selected locations in the basin with seven water quality parameters, namely pH, Dissolved Oxygen (DO), Electrical Conductivity (EC), Biological oxygen demand (BOD), Nitrates, Total Suspended Solids (TSS), and Fecal Coliforms (FCs). The water quality parameters are selected on basis of their impact on water quality evaluation and availability. The water quality data at ten gauge stations were used, which were collected from the report prepared by the Mass Initiative for Truth Research and Action (MITRA). Out of ten-gauge stations, excellent water quality was observed at Panchganga river water at Balinga U/S of Kolhapur Town with a score of 78.6, whereas poor water quality was observed at Mahuli with a score of 69.6. Spatial distribution maps of water quality across the Upper Krishna basin for various seasons summer, monsoon and winter seasons were prepared with Inverse Distance Weighting (IDW) multivariate interpolation method in ArcGIS. The spatial distribution maps of water quality are useful in identifying the regions that need to improve in terms of water quality. Finally, results from this study can be utilized for the decision-making and management of water quality. The proposed model is helpful in self-assessment of local water qualities and initiating further improvements to it.

Author keywords

Bayesian approach | Geospatial technologies | Krishna river basin | Spatial distribution mapping | Surface water quality

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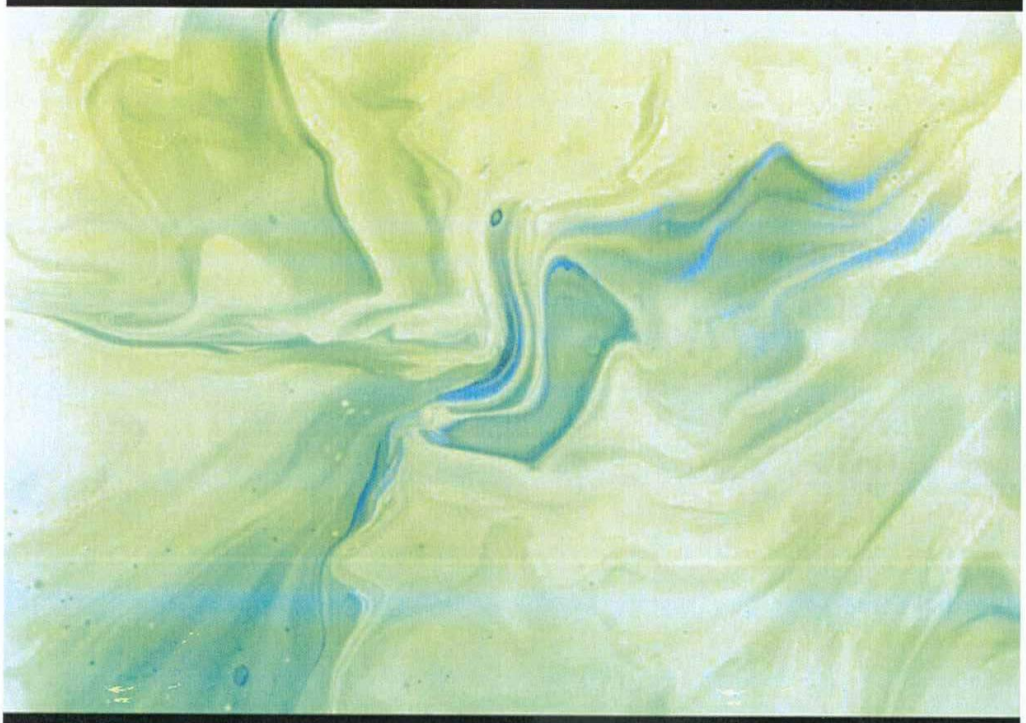

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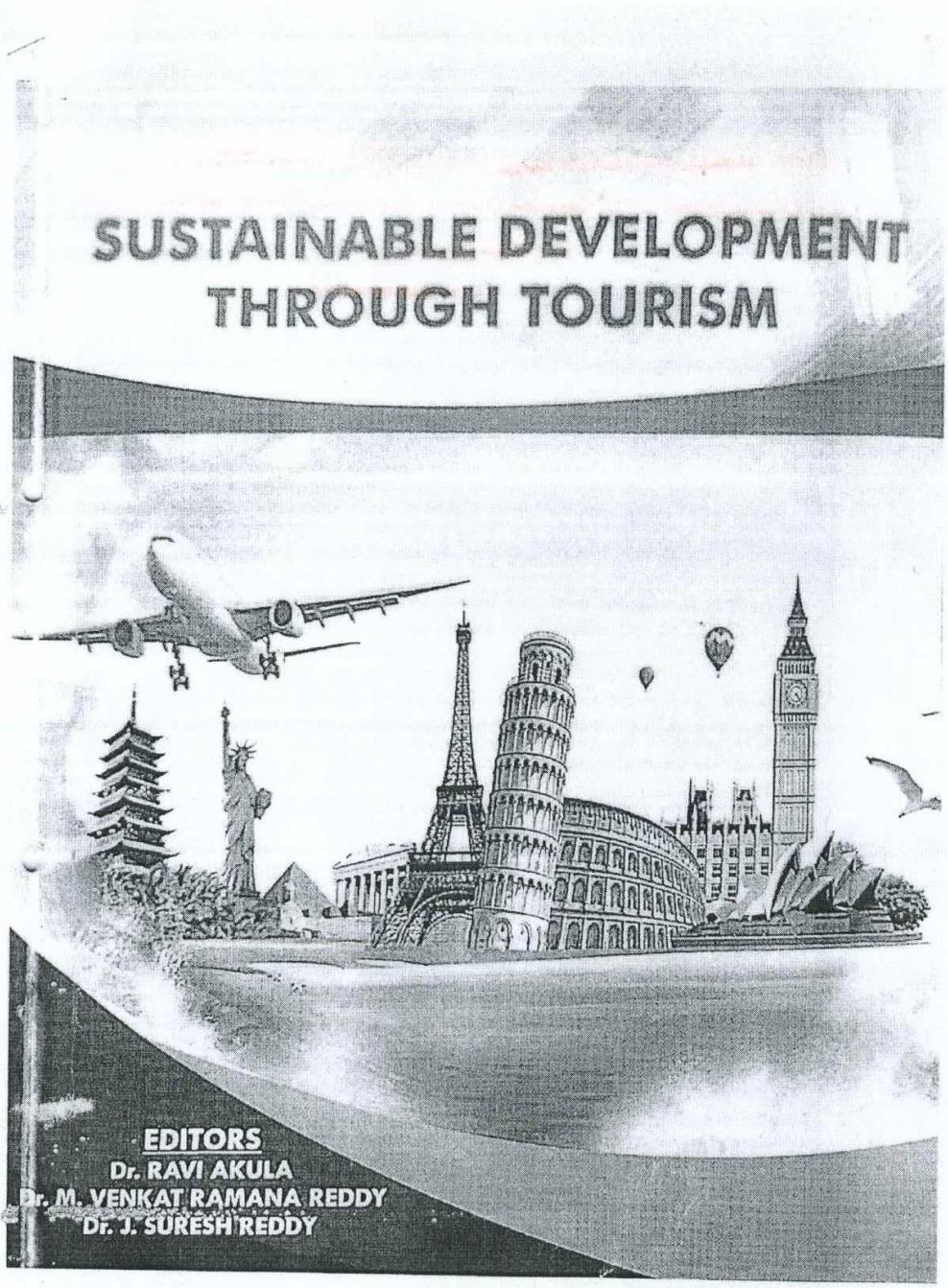
Abstract

An accurate, simple and precise RP-HPLC method with photodiode array detector (PDA) for the simultaneous determination of ambroxol, roxithromycin and serratiopeptidase in bulk and in pharmaceutical dosage form was developed and validated. The three drugs were separated and estimated using Waters HPLC system and YMC Pack pro C18 (250 × 4.6 mm) 5 μm particle size column. The mobile phase consisted of 0.1% orthophosphoric acid and acetonitrile (60:40 *v/v*). The calibration curves were linear over concentration range of 12-36 μg/mL, 60-180 μg/mL and 6-18 μg/mL with limits of detection of 0.040 μg/mL, 1.176 μg/mL and 0.127 μg/mL for ambroxol, roxithromycin and serratiopeptidase, respectively. Recovery varied in range of 99.57% - 100.24% with relative standard deviation ranging from 0.12% to 0.36% for the current drugs. The proposed method was found to be appropriate for the quality control of ambroxol, roxithromycin and serratiopeptidase simultaneously in a bulk drug as well as in pharmaceutical dosage forms.

Keywords: Liquid chromatography; mucolytic agent; serratiopeptidase; pharmaceutical dosage



Quality of Health Services a Spinal Cord for Medical Tourism Industry in India - A Critical Perspective

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Abstract

Healthcare has become one of India's largest sectors, both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services, and increasing expenditure by public as well private players. Medical tourism refers to the type of healthcare tourism where patients have access to medical institutions for treatment/rehabilitation outside their country of residence. Although the terms medical tourism and healthcare tourism are often used interchangeably, healthcare tourism is an umbrella term that encompasses thermal health tourism, spa-wellness tourism, and elderly/disabled tourism along with medical tourism. The present paper tries to project the Medical tourism structure, a snapshot of Indian Healthcare, Quality Health Services, reasons for increasing Medical tourism etc.

Key Words: Medical Tourism, Health Services, Quality, Health Tourism & Tourists Perceived risk

Introduction

A rapidly emerging manifestation of global commercialization of health care is medical tourism ('health tourism', 'medical travel'). The term refers to cross-border health care motivated by lower cost, avoidance of long wait times, or services not available in one's own country. Such care is increasingly linked with tourist activities to ease foreign patients into a new cultural environment and to occupy them during the pre- and post-operative periods (Hopkins etal, 2010).

Medical tourism is defined as organized travel beyond national borders to enhance and restore the tourists' health (Kwan & Tavitiyaman, 2021). Travelling abroad for medical treatment has grown phenomenally in the twenty first century and is one of the healthcare has become one of india's largest sectors, both in terms of revenue and employment. Healthcare comprises

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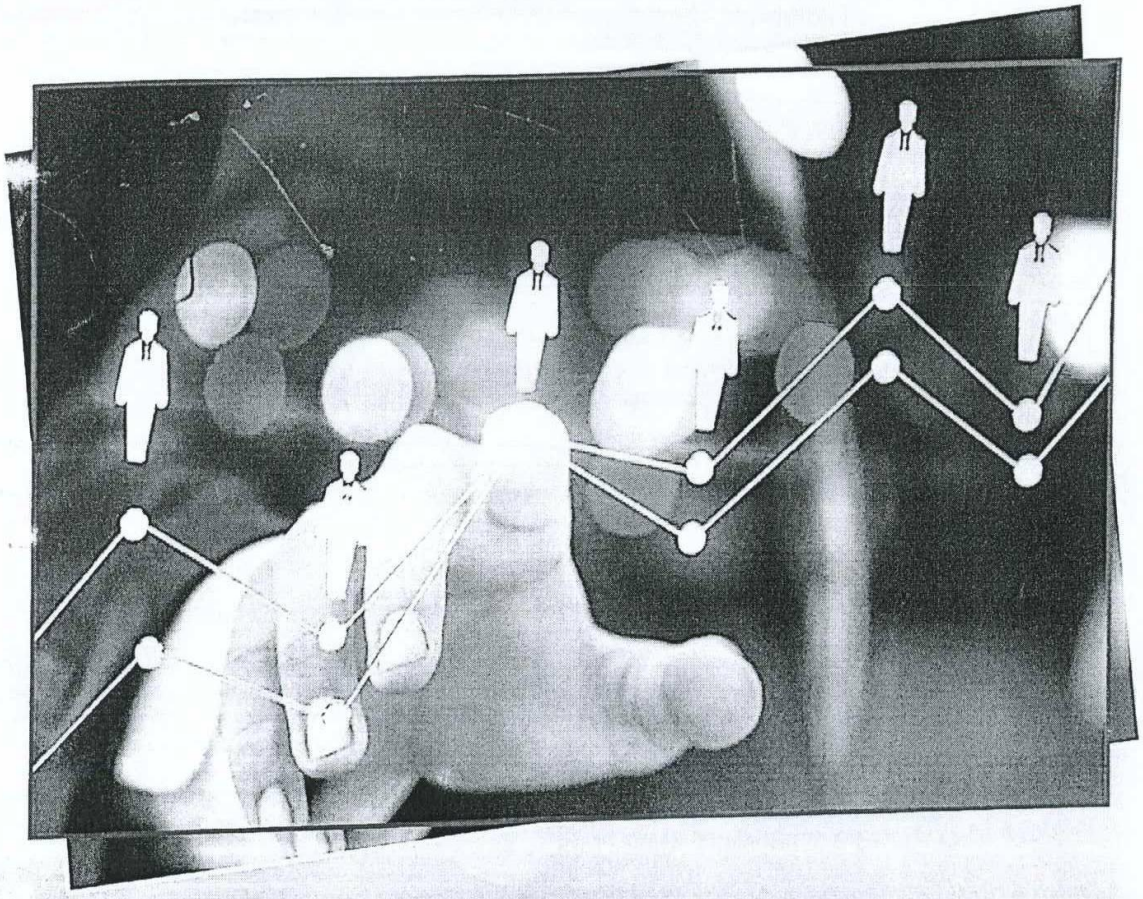

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Impact of Public Private Partnership for Inclusive Economic Growth

Dr. P. Rama Krishna[1], Mr. P. Ramaswamy[2]

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Abstract

A public-private partnership is a contract between a governmental body and a private entity, with the goal of providing some public benefit, either an asset or a service. Public-private partnerships typically are long-term and involve large corporations on the private side. A key element of these contracts is that the private party must take on a significant portion of the risk because the contractually specified remuneration how much the private party receives for its participation typically depends on performance. A public-private partnerships return on investment might be greater than projects with traditional, all-private or all-government fulfillment. Innovative design and financing approaches become available when the two entities work together. Risks are fully appraised early on to determine project feasibility. In this sense, the private partner can serve as a check against unrealistic government promises or expectations. Profits of the projects can vary depending on the assumed risk, the level of competition, and the complexity and scope of the project. In practice, PPPs tend to change over time, because it is in the nature of a partnership to develop and to adapt to the special circumstances of its particular field of operation.

Keywords: *Corporations, Remuneration, Competition, Risks*

Introduction

Public-private partnership between an agency of the government and the private sector in the delivery of goods or services to the public. Areas of public policy in which public-private partnerships (PPPs) have been implemented include a wide range of social services, public transportation, and environmental and waste-disposal services.

Although PPPs are an ancient phenomenon, they were not studied seriously by scholars until the late 1980s, when they began to be adopted in public administration and management in both developed and developing countries. PPPs have been a topic of political controversy and scholarly debate, especially regarding the advantages and disadvantages of PPPs in comparison with traditional government-run services and the nature of the partnerships they bring about.

In its most basic sense, a partnership is any business or institutional association within which joint activity takes place. A PPP exists from the moment one or more public organizations agree

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act in concert with one or more private organizations. PPPs embrace public-sector partnerships ith both businesses and organizations in civil society, including community organizations, voluntary ganizations, and nongovernmental organizations (NGOs).

The partnership involved in a PPP is not equivalent to any simple contractual relation. Although ıch relations are sometimes labeled "partnerships" by the parties concerned, they do not by ıemselves constitute a genuine PPP, which implies a triadic relationship between the public uthority, the private-sector partner, and members of the public concerned with the service. A PP is-or should be-a mutually beneficial agreement directed toward serving a social purpose

But it is also true that a multiplicity of agreements or contracts, more or less formal in nature ınd sometimes very informal, may give rise to a genuine partnership. The most-institutionalized orms of partnership may evolve into formalized permanent structures.

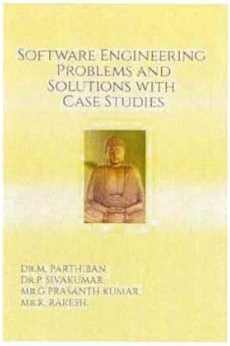
It's impossible to evaluate the complete impact of public-private partnerships (PPPs) on overall economic growth. It is likely that a private-public partnership increases net investment in a specific industry and leads to greater project growth in a specific sector.

- Public-private partnerships allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding.
- Economists note that these partnerships work well when private sector technology and innovation combine with public sector incentives to complete work on time and within budget.
- However, risks for private enterprise include cost overruns, technical defects, and an inability to meet quality standards.

Public-private partnerships are typically found in transport infrastructures such as highways airports, railroads, bridges, and tunnels. Examples of municipal and environmental infrastructure include water and wastewater facilities.

Public service accommodations include school buildings, prisons, student dormitories, and entertainment or sports facilities. PPPs also do the following:

- Allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding
- Work well when private sector technology and innovation combine with public sector incentives to complete work on time and within budget.



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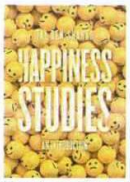

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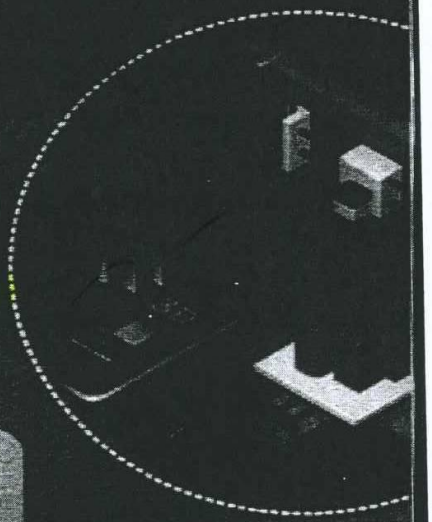

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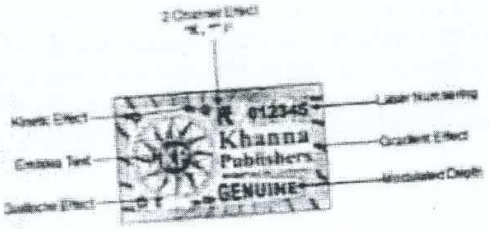

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Preface

Additive Manufacturing (AM) is a term that embraces rapid manufacturing and rapid tooling (RT). AM is an exciting new technology for quickly creating physical models and functional prototypes directly from CAD models. RT generally concerns the production of tooling using inserts. AM and RT are means for reducing the time-to-market of products.

This concise book is an abridged version of AM textbooks and research articles. It is expected to be very much helpful for beginners. I take this opportunity to acknowledge my indebtedness to authors and publishers of these books. Numerous materials available in the web on the subject were referred during the preparation of the book. The author is highly indebted to the eminent authors and their publishers whose works have been referred.

The lack of a simple book prompted the author to prepare this present work. The author does not pretend claim any originality for the material. He does not pretend claim a humble attempt in the presentation and in his efforts to combine good features of previous works in this field. The sources are appropriately acknowledged.

This book is intended to help the UG students in learning basics of AM. The first three chapters of this book describe the principles, processes, characteristics, capabilities, advantages, limitations and applications of the main known AM processes. Chapter 1 introduces the fundamentals of rapid prototyping, history of AM and discusses basics of AM. Then an overview of liquid based AM techniques, such as SLA and SGC, is presented. Chapter 2 provides an overview of solid based AM such as LOM, FDM and SDL. Chapter 3 deals with powder based AM techniques, such as SLS, 3DP, LENS, EBFFF and EBM. Indirect and direct methods of producing soft tooling, firm tooling (or bridge tooling) and hard tooling based on AM are dealt with in Chapter 4. Chapter 5 covers AM data formats and software used in AM the last chapter discusses AM applications in various industries.

R.B. Choudary

Outcomes-Based Education

Outcome-Based Education (OBE) is a student-centric teaching and learning methodology in which the course delivery and assessment are planned to achieve stated objectives and outcomes. It focuses on measuring student performance, *i.e.*, outcomes at different levels.

Some important aspects of the Outcome-Based Education:

1. Program Educational Objectives (PEOs) – Communication Skills objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.

2. Programme Specific Outcomes (PSOs) – are what the students should be able to do at the time of graduation with reference to a specific discipline. Usually, there are two to four PSOs for a programme.

3. Program Outcomes (POs) – Program Outcomes are statements that describe what students are expected to know and be able to do upon graduating from the Program. These relate to the skills, knowledge, attitude, and behavior that students acquire through the program. The National Board of Accreditation (NBA) has defined the Program Outcomes for each discipline.

4. Course Outcomes (COs) – Course Outcomes are narrower statements that describe what students are expected to know, and are able to do at the end of each course. These relate to the skills, knowledge, and behavior that students acquire in their progress through the course.

5. Assessment – Assessment is one or more processes, carried out by the institution, that identifies, collects, and prepare data to evaluate the achievement of program educational objectives and program outcomes.

6. Evaluation – Evaluation is one or more processes, done by the evaluation team, for interpreting the data and evidence accumulated through assessment practices. Evaluation determines the extent to which program educational objectives or program outcomes are being achieved and results in decisions and actions to improve the program.

7. Mapping – Mapping is the process of representing, preferably in matrix form, the correlation among the parameters. It may be done for one to many, many to one, and many to many parameters.

8. Rubrics: Rubrics provide a powerful tool for the assessment and grading of student work. They can also serve as a transparent and inspiring guide to learning. Rubrics are scoring, or grading tools used to measure a student's performance and learning across a set of criteria and objectives. Rubrics communicate to students (and to other markers) your expectations in the assessment, and what you consider important.

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A Treatise on

ADDITIVE MANUFACTURING

About the Book

A treatise on Additive Manufacturing (AM) is a concise textbook that takes readers inside the world of additive manufacturing. This book provides a very basic and essential knowledge about different types of AM technologies, available models and their specifications, advantages, disadvantages, potential applications and a few case studies. Easy to understand, this book gives good introduction to anyone interested in obtaining a better understanding of AM.

Salient Features

Focusing on additive manufacturing applications rather than on core AM technologies, this book:

- Introduces various additive manufacturing technologies based on their utilization in different classes of materials.
- Reflects recent developments and trends and adheres to the ASTM, SI and other standards.
- Includes a section on automotive, aerospace and medical applications.
- Includes discussions of the specifications and special aspects of industrially available machines.
- Provides the latest information on the use of additive manufacturing for the direct production of finished products.
- Provides a broad range of technical (subjective and objective) questions to ensure comprehensive understanding of the concepts covered.

About the Author

Dr. R. B. Choudary, Academic Director, Minerva Group of Institutions, Prathipadu has more than three decades of teaching experience in various Engineering Colleges. He received *Best Paper Award*, ISRS-2007, Chennai and *Modi Award*, NWS-1991, Madras. He authored five text books *viz.* Plant Layout and Materials Handling, Engineering Graphics with a primer on AutoCAD-2016, Materials Science and Metallurgy, Ansys R2020, Non-destructive Testing and several research papers.

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FUNDAMENTALS OF R PROGRAMMING

Dr. Phani Kumar Solleti | Dr. A V N Chandra Sekhar
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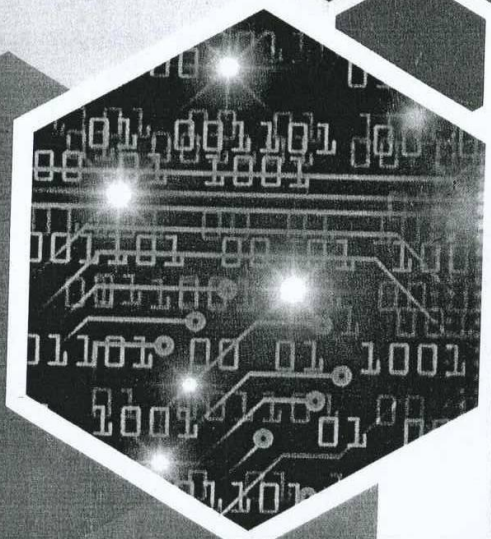

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PREFACE

This book aims to provide a broad **Fundamentals of R Programming** for the importance of R **Programming** is well known in various engineering fields.

It provides a logical method of explaining various complicated concepts and stepwise methods to explain important topics. Each chapter is well supported with the necessary illustrations. All the chapters in the book are arranged in a proper sequence that permits each topic to build upon earlier studies.

R Programming is an important research area. The techniques developed in this area so far require to be summarized appropriately. In this book, the fundamental theories of these techniques are introduced.

The brief content of this book is as follows-

CHAPTER I:	Introduction to Analytics and R programming
CHAPTER II:	Summarizing Data & Revisiting Probability
CHAPTER III:	SQL using R
CHAPTER IV:	Correlation and Regression Analysis
CHAPTER V:	Understand the Verticals - Engineering, Financial, and others

This book is original in style and method. No pains have been spared to make it as compact, perfect, and reliable as possible. Every attempt has been made to make the book a unique one.

In particular, this book can be very useful for practitioners and engineers interested in this area. Hopefully, the chapters presented in this book have just done that.

ACKNOWLEDGMENTS

Take it from me, writing a book takes time, patience, and motivation in equal measures. The challenges can sometimes be overwhelming, and it becomes very easy to lose focus. However, analytics, patterns, and uncovering the hidden meaning behind data have always attracted me. When one considers the possibilities offered by comprehensive analytics and the inclusion of what may seem to be unrelated databases, the effort involved seems almost inconsequential.

I also have to acknowledge the many vendors in the Internet of Things arena who inadvertently helped me along my journey to expose the value contained in data.

Writing takes a great deal of energy and can quickly consume all of the hours in a day. With that in mind, I have to thank the numerous editors whom I have worked with on freelance projects while concurrently writing this book. Without their understanding and flexibility, I could never have written this book or any other.

When it comes to providing the ultimate encouragement and support, no one can compare with my family time and be still willing to provide me with whatever I needed to complete this book. I am very thankful to have such a wonderful and supportive family.

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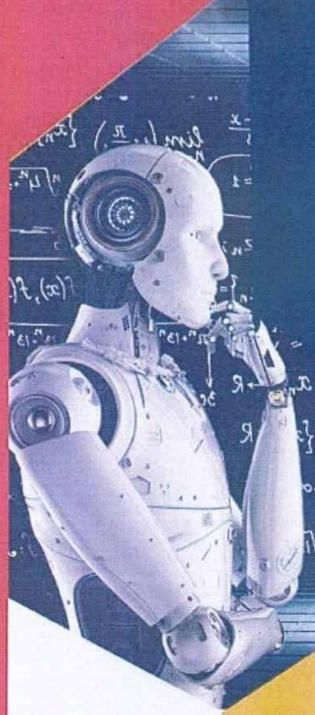

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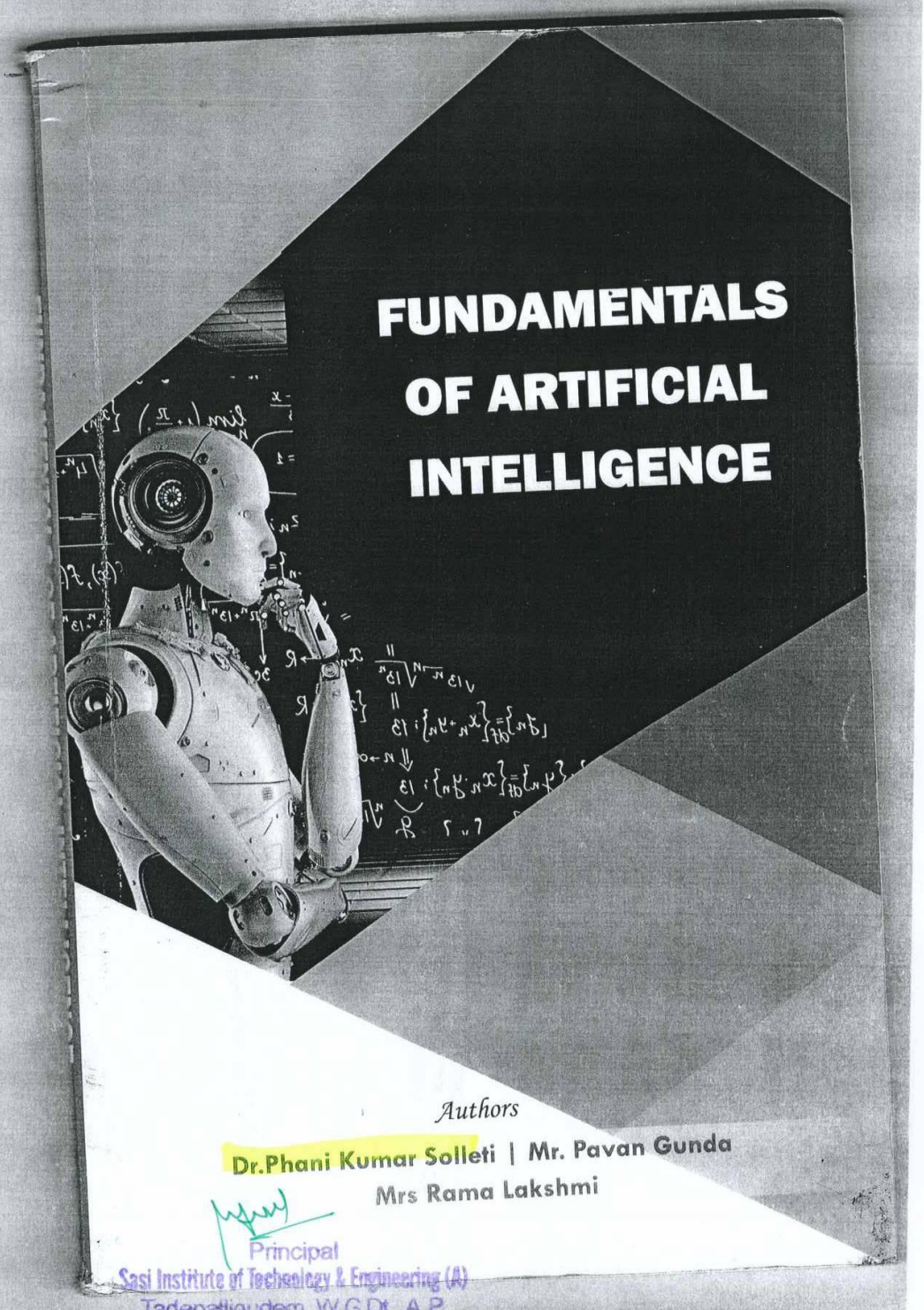

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PREFACE

This book aims to provide a broad ARTIFICIAL INTELLIGENCE TECHNIQUES for the importance of ARTIFICIAL INTELLIGENCE TECHNIQUES in various engineering fields. The book uses explains the fundamentals of this subject.

It provides a logical method of explaining various complicated concepts and stepwise methods to explain important topics. Each chapter is well supported with the necessary illustrations. All the chapters in the book are arranged in a proper sequence that permits each topic to build upon earlier studies.

AI is an important research area. The techniques developed in this area so far require to be summarized appropriately. In this book, the fundamental theories of these techniques are introduced. Particularly, the functions required in image processing techniques are introduced.

The brief content of this book is as follows-

CHAPTER 1 INTRODUCTION TO ARTIFICIAL INTELLIGENCE
CHAPTER 2 PROBLEM SOLVING: STATE-SPACE SEARCH AND CONTROL STRATEGIES
CHAPTER 3 PROBLEM REDUCTION AND GAME PLAYING
CHAPTER 4 LOGIC CONCEPTS
CHAPTER 5 KNOWLEDGE REPRESENTATION
CHAPTER 6 ADVANCED KNOWLEDGE REPRESENTATION TECHNIQUES
CHAPTER 7 EXPERT SYSTEM AND APPLICATIONS

This book is original in style and method, and no pains have been spared to make it as compact, perfect, and reliable as

Chapter 1

Unit -I

INTRODUCTION TO ARTIFICIAL INTELLIGENCE

1.1 Introduction

Artificial Intelligence is one of the booming technologies of computer science, which is ready to create a new revolution in the world by making intelligent machines. AI is now all around us. It is currently working with a variety of subfields, ranging from general to specific, such as self-driving cars, playing chess, proving theorems, playing music, painting etc. AI holds a tendency to cause a machine to work as a human.

1.2 What is Artificial Intelligence?

Artificial Intelligence is composed of two words Artificial and Intelligence, where Artificial defines "man-made," and intelligence defines "thinking power", hence AI means "a man-made thinking power." So, we can define AI as, "It is a branch of computer science by which we can create intelligent machines which can behave like a human, think like humans, and able to make decisions."

1.3 Why Artificial Intelligence?

- With the help of AI, we can create such software or devices which can solve real-world problems very easily and with accuracy such as health issues, marketing, traffic issues, etc.

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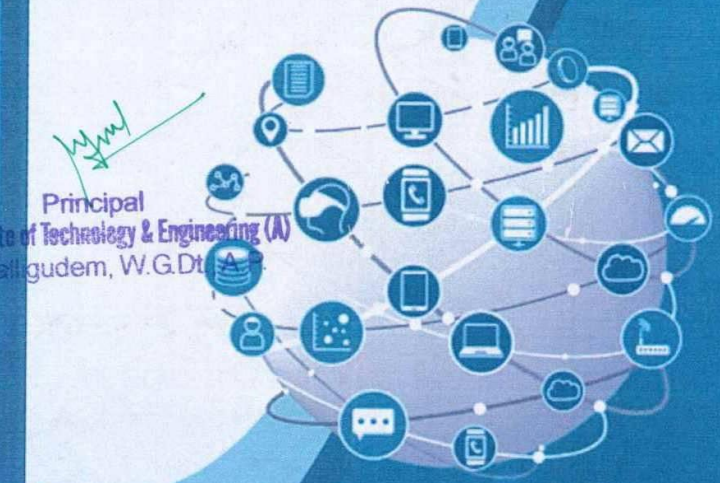

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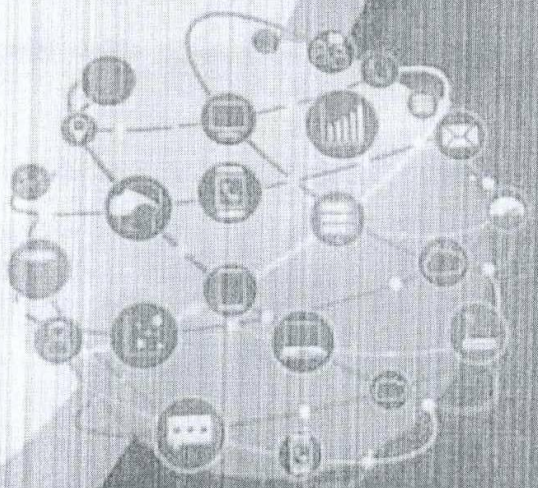
BIG DATA ANALYTICS: A THEORETICAL STUDY WITH HIVE



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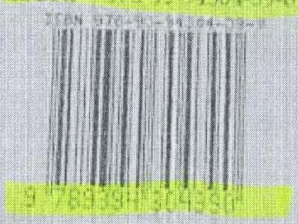

CONTENTS

SMART GRIDS FOR RENEWABLE ENERGY SYSTEMS, ELECTRIC VEHICLES AND ENERGY STORAGE SYSTEMS

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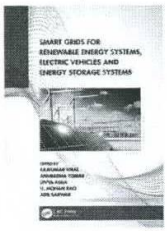

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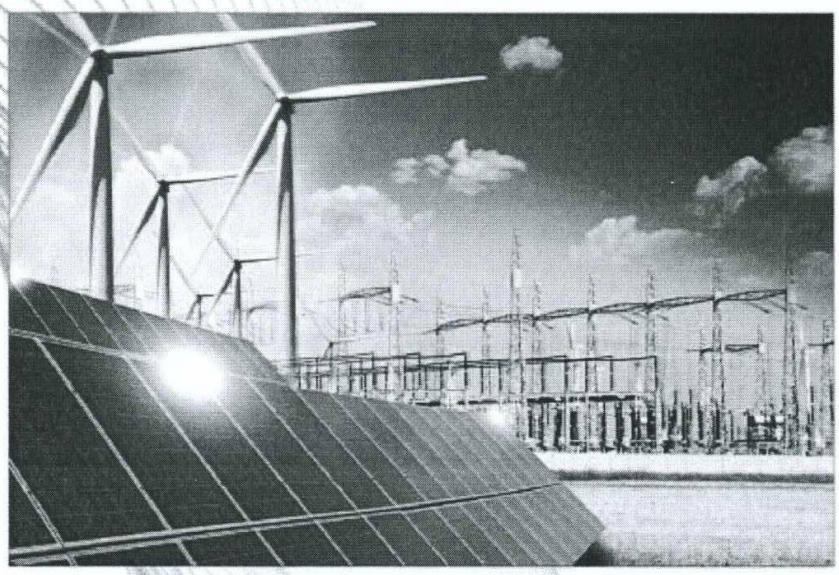

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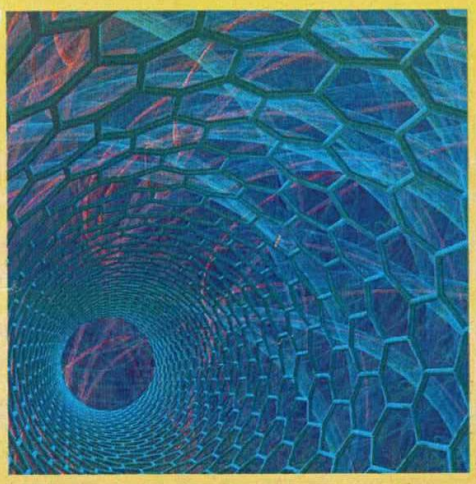

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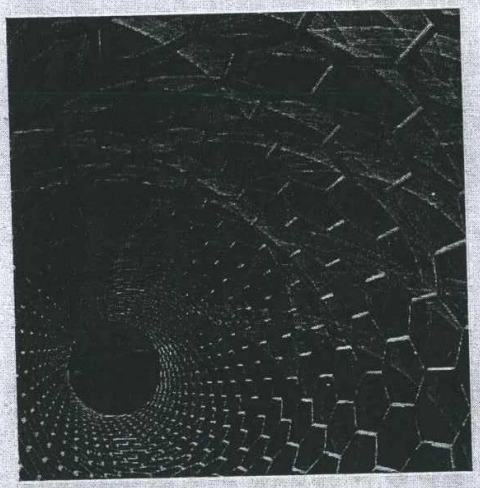

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CURRENT RESEARCH OF NANOTECHNOLOGY IN SCIENCE AND ENGINEERING

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CONTENT

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Chapter 11

APPLICATION OF NANO FLUIDS IN AUTOMOBILE ENGINEERING

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ABSTRACT

This chapter is aimed to explain the importance of nano fluids/nano lubricants in Mechanical Engineering through characterization of nano fluids like thermal conductivity, viscosity, flash point and fire point tests of CuO based engine oils. CuO based engine oils are synthesized nanoparticles using wet precipitation method and those nanoparticles are charecterized using XRD and TEM analytical techniques. The prepared CuO nanoparticles are separated in three different mass concentrations i.e., 0.1wt%, 0.2wt% and 0.5wt% of CuO nanoparticles are mixed to commercially available engine oil for the experimental investigations. KD2 pro thermal property analyzer, Redwood Viscometer–I and Cleveland open cup apparatus are used to evaluate thermo physical properties like thermal conductivity, viscosity, flash and fire point of nanoparticle based engine oil.

KEYWORDS: Nano fluids, Nano lubricants, CuO nanoparticles, Engine oil, Automobile Engineering.

INTRODUCTION

Nano fluid is an engine lubricant produced by mixing, of CuO nanoparticles as additive into commercially available SAE 20W 40, 10W 30 and 15W 40 three different types of Engines oil's. Recent investigations into nanofluids show that they have improved thermo physical properties over the conventional fluids like water, ethylene glycol etc. In spite of best thermal design, materials, and the performance of any engine oil is restricted due to its inherited poor thermal conductivity. Solution to this problem can be sort out from the newly discovered nano materials based nanolubricant. It has been also observed that nanofluids have potential to improved thermo physical properties over the conventional fluids. [1-2]

BACKGROUND OF STUDY

The use of petroleum products in the transportation sector has been steadily increasing, which contribute in a larger extent to the rapid depletion of the natural resources. Even a 10% increase in the efficiency of engines by decreasing friction is considered to be a significant improvement. Lubrication is essential to reduce friction and wear in engine parts thus minimizing the associated dissipative energy loss. Thermal conductivity is the most important property of lubricating oil, which accounts for its heat transferring ability. Other important properties of lubricating oil include the flash point and the pour point, which are related to oil storage and handling. These properties of lubricant can be further improved by the use of various wear reducing agents. With the invention of nano structured materials in the recent years, this project concentrated to use nanoparticles as lubricant additives to improve their lubrication properties. [3-4]

Recent manufacture technology provides excessive opportunities to process different material at nanometer scales. Nano-structured or nanophase materials have made of nanometer-size substances engineered on the atomic or molecular scale to produce either new or greater physical properties not showed by conventional solids. All physical mechanisms have a critical length scale below which the physical properties of materials are changed. Therefore, solid particles smaller than 100 nm have properties different from those of conventional solids. Many kinds of liquids, such as water, ethylene glycol, and oil, have been used as host liquids in nanofluids. There are different types of nanoparticles used to disperse in fluids as given below.

1) Metallic nano particles.
2) Non-metallic nano particles.
3) Metallic and non-metallic oxides.
4) Carbon nano tubes.
5) Ceramics and composites.

Materials for base fluids and nano particles are varied. Stable and highly conductive nanofluids can be produced by one-step production and two-step production methods. These both methodologies for making nano particle suspensions suffer from agglomeration of nano particles, which is an important issue in all technology containing nano powders. Therefore, production and suspension of closely non-agglomerated or mono dispersed nano particles in liquids is the important to important enhancement in the thermal properties of nanofluids.

METHODS AND MATERIAL

In this preparation process 400ml of deionised water is taken in a 1000ml of the beaker to these 10grams of Copper chloride was added along with 20grams of sodium hydroxide pellets. The reaction mixture was heated along with magnetic stirring and the process is carried out for one hour at 900C. The pH value 7 of the so formed copper oxide wet precipitate is neutralized by adding droplets of Hydrochloric acid. Washed the wet precipitate copper oxide with deionised water to remove the impurity ions present in the solution. Copper oxide nanofluids are obtained by dispersing the wet precipitate into the required amount of deionised water under ultrasonic vibration for about 4hours to have uniform dispersion of copper oxide nanoparticles. Copper oxide particles with fluid are washed with distilled water and acetone for 3 to 4 times and by using centrifugation method and the fine particles are collected. Obtained Wet copper oxide particles are kept in muffle furnace at 3500C for 3hours to remove impurity ions known as "Calcination". The obtained CuO particles removed from muffle furnace and make fine nanopowder by using ball milling method at for 3hours.The fine Copper oxide nanoparticles are in brownish-black in colour as shown in figure 1. As a result, the color of the solution changes from blue to black after the reaction, and then the mixture was cooled to room temperature the chemical reaction can be represented as

$$CuCl_2+2NaOH \rightarrow CuO\downarrow+NaCl+H_2O\uparrow$$

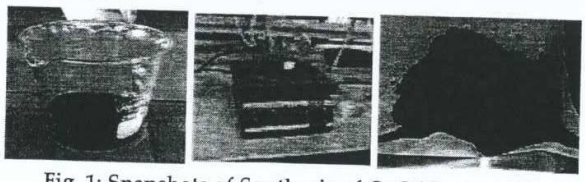

Fig. 1: Snapshots of Synthesis of CuO Nanoparticles

The synthesized CuO nanoparticles are mixed into three different types of engine oils with 0.1wt%, 0.2wt% and 0.5wt% concentrations by using probe sonication for 12hours as shown in figure 2.

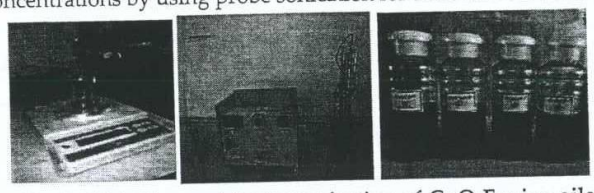

Fig. 2: Weighing and Probe sonication of CuO-Engine oils.

RESULTS AND DISCUSSION

XRD (X-RAY DIFFRACTION)

The average particle size of the CuO nano particles is calculated by Debye scherrer formula and it is found that 25-30nm. Lattice parameters of unit cell of CuO are found to be a = 4.446 Å, b = 3.628 Å, c = 5.228Å reported in ICDD Card. The HKL values (111), (111), (202), (020), (202), (113), (310), (220) are in accordance with the literature values reported in JCPS file.

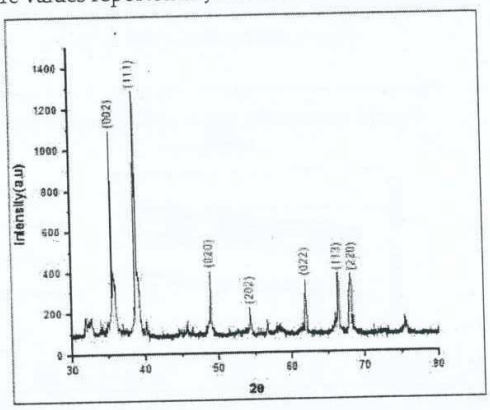

Fig. 3: XRD of CuO powder

TEM (TRANSMISSION ELECTRON MICROSCOPE)

The formation of CuO nanoparticles with accurate dimensions can be studies by using TEM. The image shows that the average size of CuO nanoparticles is found that 27 ± 1.52 nm as shown in figure 4.

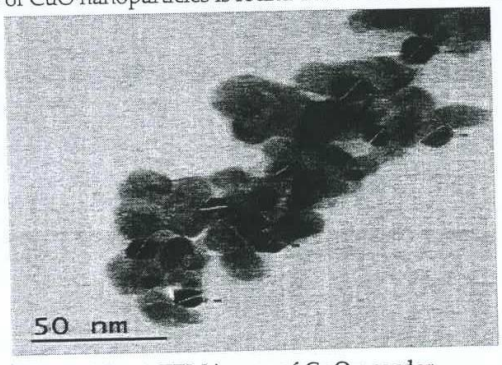

Fig. 4: TEM image of CuO powder

THERMAL CONDUCTIVITY

KD2 pro thermal property analyzer consists of a platinum wire as needle which is used a sensor needle to find the thermal conductivity of nanofluid at room temperature as shown in fig 5. The range of the sensor needle 0.2–2 W/mK with an accuracy of ±5% can be used for measuring thermal conductivity of fluids. Each measurement cycle consists of 90 seconds. During the first 30 seconds, the instrument will equilibrate which is then trailed by heating and cooling of sensor needle for 30 seconds each.

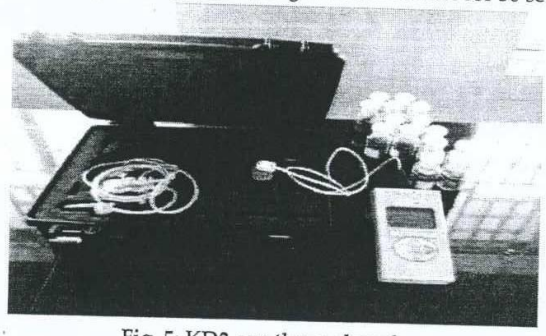

Fig. 5: KD2 pro thermal analyzer

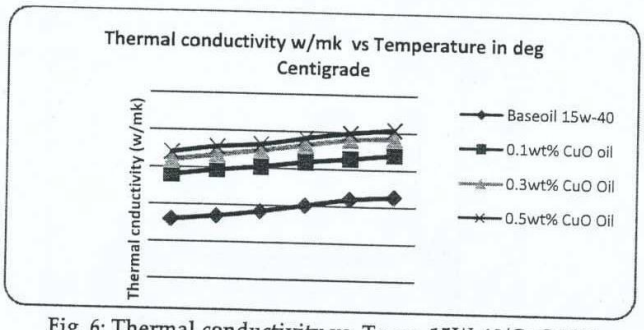

Fig. 6: Thermal conductivity vs. Temp. 15W-40/CuO NP's

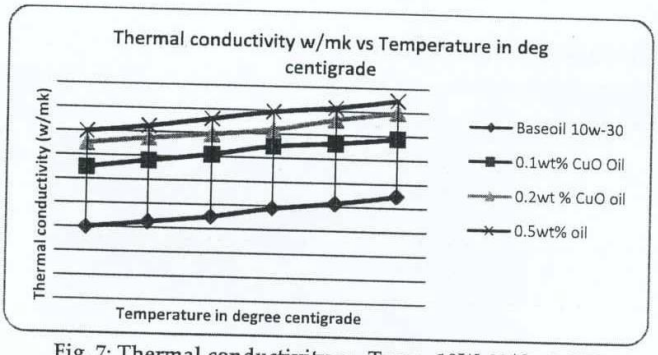

Fig. 7: Thermal conductivity vs. Temp. 10W-30/CuO NP's

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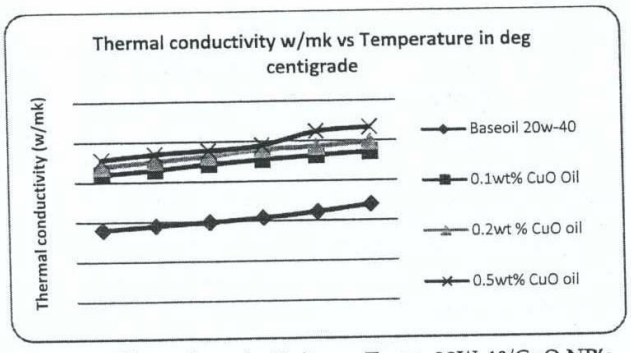

Fig. 8: Thermal conductivity vs. Temp. 20W-40/CuO NP's

VISCOSITY

For the measurement of viscosity of CuO nanoparticles in engine oil's Redwood viscometer is used and experimental procedure is followed by standard laboratory technique as shown in figure 9. The rate of oil resistance against flowing is called viscosity, which is one of the most important factors for selecting engine oil. Because of the importance of viscosity for a nanofluid, we have done experimentally for the finding of viscosity.

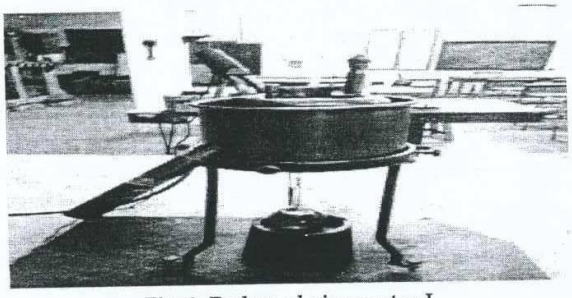

Fig. 9: Redwood viscometer-I

The below tables 1, 2 & 3 shows the obtained experimental values of kinematic viscosity at 40°C and 100°C of 20W 40, 10W 30 & 15W 40 engine oils with CuO mass concentrations.

Table 1: Viscosity of 20W 40 engine oil with CuONP's

S.No.	Oil samples	Kinematic viscosity (cSt) 40°c	Kinematic viscosity (cSt) 100°c
1.	20w 40 oil	138.8	15.68
2.	20w 40 oil + CuO 0.1wt%	141	15.84
3.	20w 40 oil + CuO 0.2wt%	144.77	15.92
4.	20w 40 oil + CuO 0.5wt%	146	16.12

Table 2: Viscosity of 10W 30 Engine Oil with CuO NP's

S.No.	Oil samples	Kinematic viscosity (cSt) 40°c	Kinematic viscosity (cSt) 100°c
1.	10w 30 oil	141.25	15.96
2.	10w 30 oil + CuO 0.1wt%	143.3	16.24
3.	10w 30 oil + CuO 0.2wt%	145	16.45
4.	10w 30 oil + CuO 0.5wt%	146.58	17

Table 3: Viscosity of 15W 40 Engine Oil with CuO NP's

S.No.	Oil samples	Kinematic viscosity (cSt) 40°c	Kinematic viscosity (cSt) 100°c
1.	15w-40 oil	139	15.93
2.	15w 40 oil + CuO 0.1wt%	142.44	16.13
3.	15w 40 oil + CuO 0.2wt%	144.77	16.92
4.	15w 40 oil + CuO 0.5wt%	146.35	16.98

FLASH AND FIRE POINT

Flash and fire point measurement is experimentally done on Cleveland open cup apparatus. In this experiment, the sample is warmed up according the methods. When the flash point is reached, there is a blue color flame produced at above the sample. The sample to be heated continuously until permanent flame is detected which is known as Fire point. Temperature readings are to be noted for flash and fire points using high capacity thermometers.

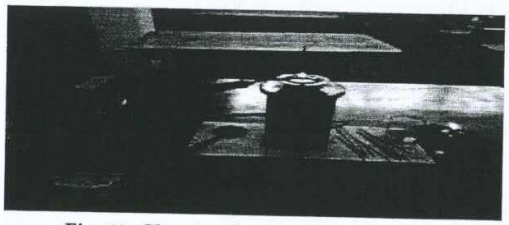

Fig. 10: Cleveland open cup apparatus

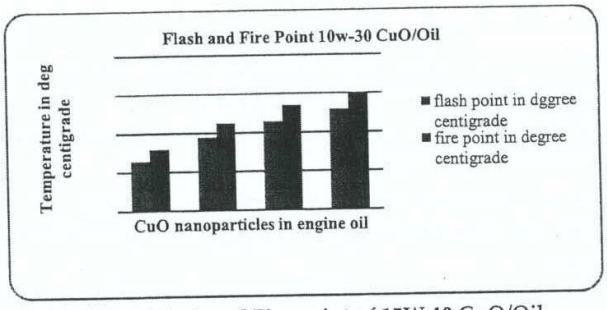

Fig. 11: Flash and Fire point of 15W 40 CuO/Oil

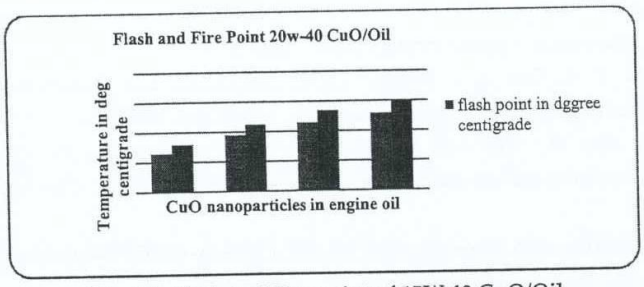

Fig. 12: Flash and Fire point of 15W 40 CuO/Oil

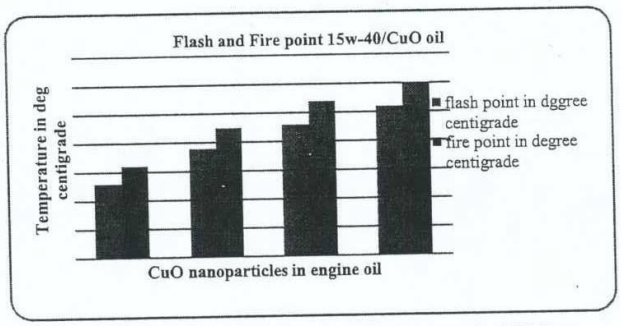

Fig. 13: Flash and Fire point of 15W 40 CuO/Oil

CONCLUSIONS

- Thermal conductivity of three different types of engine oils (base fluid) and engine oils with CuO nanoparticles increases almost linearly with temperature (30 to 45 ºC).
- At different mass concentration of CuO nanoparticles, the improvement in thermal conductivity is gradually increasing with respect to temperature. This rise in the thermal conductivity is more at high temperature (30ºC to 45 ºC). Same is true for higher value of mass concentration of nanoparticles.
- But in the visual inspection it seems that at 0.5wt% CuO, it is difficult to mix with engine oil due to the formation of agglomeration. However, at 0.1wt% and 0.2wt% CuO nanoparticles with engine oil shows nearly 5.7% of improvement in thermal conductivity.
- The results show that viscosity increases with the nanoparticles concentration, while going from 0.1 to 0.5% mass concentration and due to increase in concentration of nanoparticle, particle to particle bonding increase which results in more rise in viscosity.

- On the basis of size effect, viscosity of engine oil with nanoparticles increases with the increases size of nanoparticles at constant temperature. The results show that all the three types of oils with CuO nanoparticles viscosity increases at constant temperature.
- Adding CuO nanoparticles to the base oil causes an increase in the flash and fire point of the base oil because CuO nanoparticles have high melting point.
- The rate of change in flash point of the CuO nanoparticles with engine oils at 0.1 wt. % concentration with respect to the base oil is nearly 7.5%, and the highest amount of increase is at 0.5 wt. % sample, which is nearly 13%.

REFERENCES

[1] T.–H. Hong, H.-S. Yang, and C. J. Choi (2005). "Study of the Enhanced Thermal Conductivity of Fe Nanofluid." Journal of Applied Physics vol. 97: 064311.

[2] Chopkar, M. P. K. Das, & I. Manna. (2006). "Synthesis and characterization of nanofluid for advanced heat transfer applications", Scr. Mater, vol. 55, pp. 549–552.

[3] Hwang YJ, Ahn YC, Shin HS, Lee CG, Kim GT, Park HS, Lee JK. (2006). "Investigation on characteristics of thermal conductivity enhancement of nanofluids". CurrAppl Phys vol.6: pp.1068–1071

[4] Sarit k. Das, Stephen U.S. Choi, Wenhua Yu & T. Pradeep. (2007). "Nanofluid science & technology", A John Wiley & Sons, Inc., Publication.

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Performance and Error Estimation Analysis of QAM with MRC Receiver for L-TAS/SC Over α–μ Fading Channels

K. S. Balamurugan, T. J. V. Subnahmanyeswara Rao & G. Srihari

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Abstract

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Abstract

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Performance and Error Estimation Analysis of QAM with MRC Receiver for L-TAS/SC Over α–μ Fading Channels

verfasst von : K. S. Balamurugan, T. J. V. Subnahmanyeswara Rao, G. Srihari

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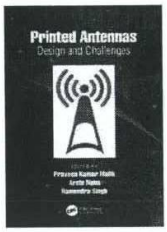

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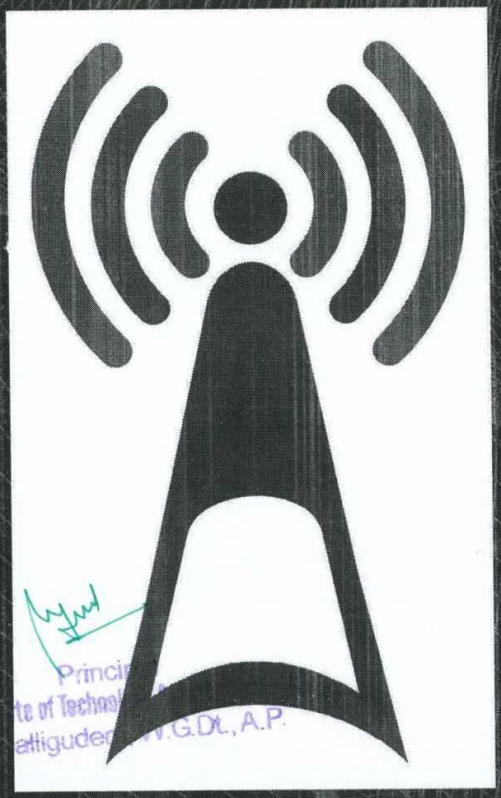

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Design and Challenges

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The Information Extraction is a branch of natural language processing that focuses on extracting actual information from unstructured text. The goal of Information Extraction (IE) is to find a predetermined set of ideas, or a machine-understandable representation of the data. The traditional IE duties include the following: The challenge of identifying and classifying predefined

Proceedings of Second International Conference on Sustainable Expert Systems pp 573–582

Domain Text Classification Using Machine Learning Models

Akula V. S. Siva Rama Rao, D. Ganga Bhavani, J. Gopi Krishna, B. Swapna & K. Rama Sai Varma

Conference paper | First Online: 26 February 2022

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 351)

Abstract

Natural Language Processing (NLP) is used to classify text domains. In all applications where data is critical, such as News media, educational institutes, business organizations, research organizations, scientific, technology companies, and government organizations maintaining huge every day generated data is a serious challenge. Automated text classification has long been

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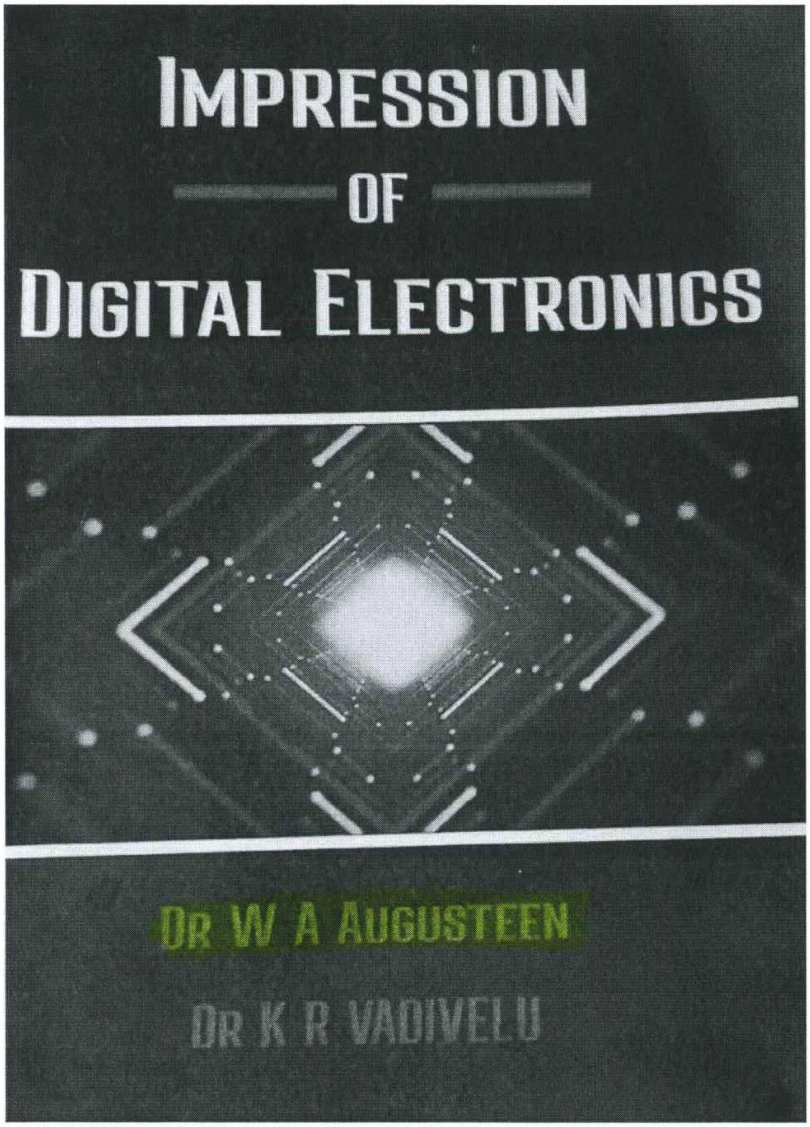

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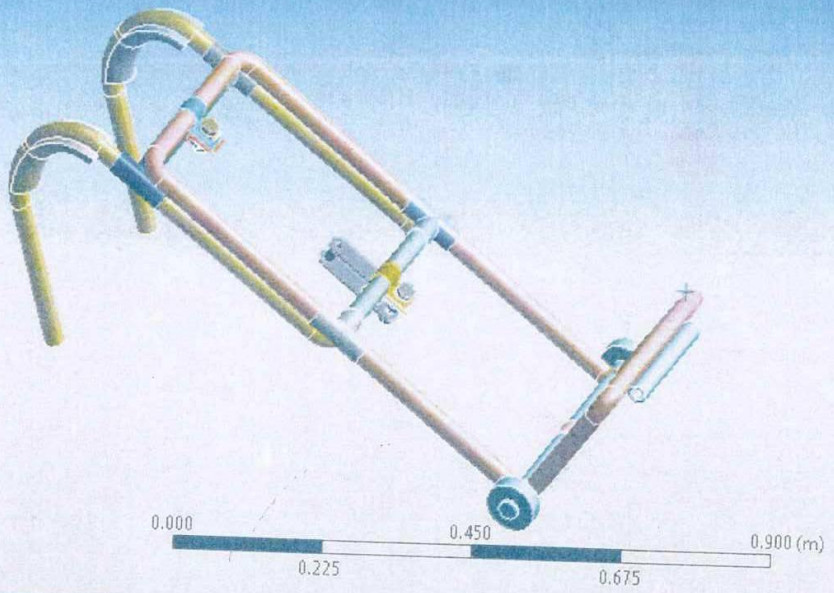

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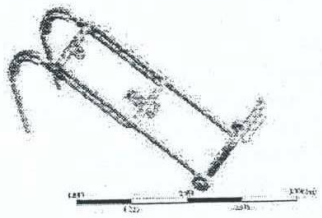

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Dedication

Dedicated to all who have stood by me in the tests of times
particularly Smt. Jyothi Latha, my wife, Ms. Bindu Madhavi, my daughter.

PREFACE

ANSYS is a large and complex program with many different capabilities. Learning the software and documentation of the various features can be a big task for a beginner. This book is intended to help the new ANSYS user in getting started. It teaches the basics of ANSYS in the following areas:

- ANSYS capabilities, basic terminology and the GUI
- Building or importing solid models and meshing
- Applying loads, solving and reviewing results
- Carrying out a complete ANSYS analysis
- Productivity enhancement tools.

The four chapters in this book introduce the reader to effective finite element problem solving by demonstrating the use of the comprehensive ANSYS FEM software in a series of step-by-step tutorials.

The steps given do not provide every single mouse click, but, hopefully all steps needed will be apparent. Also, the commands can be entered directly at the command line instead of using the menu picks. In this book, however, the commands are not provided. They can be obtained, however, by selecting "HELP" on a related dialog box.

Topics covered include ANSYS Basics, ANSYS Operations, Modeling and Meshing and Structural Analysis.

R.B. Choudary

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This concise book is an abridged version of ANSYS help manuals. It is expected to be very m... helpful for beginners. I take this opportunity to acknowledge my indebtedness to M/s Swans... Analysis Systems, Inc., USA and ANSYS Inc., India for giving permission to use the menus, dia... boxes, and plots of ANSYS academic teaching software in the book. Numerous tutorials availa... in the web on the subject were consulted during the preparation of the book. I am highly indeb... to the eminent authors and their publishers whose works have been consulted.

I am very much obliged to my wife Smt. Jyothi Latha and daughter Ms. Bindu Madhavi for th... patience and perseverance in shouldering the domestic responsibilities and providing the mo... support during the writing of this book.

The lack of a simple book prompted the author to prepare this present work. The author do... not pretend to claim any originality for the material. He does claim some degree of it in the... presentation, and in his efforts to combine good features of previous works in this field. The sou... are appropriately acknowledged.

Any suggestion, criticism, comment towards improvement of the book will be thankfu... acknowledged and appreciated and those may be freely addressed to the publisher.

25 September 2020
Vijayawada

R.B. Choudary

SYMBOLS AND ABBREVIATIONS

SYMBOLS

EX, EY, EZ	Young's modulus
GXY	Shear modulus
KXX, KYY, KZZ	Thermal conductivity
PRXY	Poisson's ratio

ABBREVIATIONS

APDL	ANSYS Parametric Design Language
CAD	Computer Aided Design
CAE	Computer Aided Engineering
CAM	Computer Aided Manufacturing
CPU	Central Processing Unit
CS	Coordinate System
DOF	Degrees of Freedom
DDAM	Dynamic Design Analysis Method
FEM	Finite Element Method
FSI	Fluid-Structure Interaction
GUI	Graphical User Interface
ICCG	Incomplete Cholesky Conjugate Gradient
IGES	Initial Graphics Exchange Specification
JCG	Jacobi Conjugate Gradient
MDOF	Million Degrees of Freedom
PCG	Preconditioned Conjugate Gradient
PSD	Power Spectral Density
QMR	Quasi-Minimal Residual
UIDL	User Interface Design Language
2-D	2-Dimensional
3-D	3-Dimensional

CONVENTIONS

This book uses several conventions to help in identifying various types of information:

Type style or text	Indicates
BOLD	Upper case, bold text indicates command names (such as K, DDELE, etc.)
Bold>Bold	Bold text with mixed case indicates GUI picks. An angle bracket (>) separating GUI picks indicates a GUI path, or series of picks (for example, **Main Menu> Solution**)
ITALICS	Upper case italic letters indicate command arguments for numeric values (such as *VALUE, INC, TIME*). On some commands, non-numeric convenience labels (for example, *ALL* and *F*) can also be entered for these arguments
Italics	Initial upper case italic letters indicate command arguments for alphanumeric values (for example, *Lab* or *Fname*). The book also uses italic text for emphasis
TYPEWRITER	Typewriter font indicates command input listings, ANSYS output listings, and text that an ANSYS user enters
Underlined	Mouse button to be clicked in the ANSYS GRAPHICS window

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Key Highlights:

- The first chapter deals with the finite elements method, mechanical APDL environment, running the ANSYS program, GUI, graphical picking, customizing the GUI, using the ANSYS session and command logs.
- The second chapter deals with getting started, loading, solution, postprocessing, general postprocessor, time-history postprocessor, selecting the components, creating graphs, annotation, animation, documenting the analysis, typical modeling difficulties, and the mechanical toolbar.
- An exclusive treatise on modeling and meshing is given in the third chapter, which includes model generation, planning the approach, coordinate systems, working planes, solid modeling, importing solid models, generating the mesh, revising the model, direct generation, and number control and element reordering.
- Problems on linear static structural analysis are presented in Chapter 4, in which the problems are categorized based on their dimensionality. The 2D problems are grouped into trusses, beams, planes and frames. The 3D problems are dealt under solids and space.

Dr. R.B. Choudary graduated in Mechanical Engineering from MIT, Manipal in 1986 and obtained M.Tech from REC, Warangal in 1989. He obtained his PhD from Andhra University in 2010. He has more than two decades of teaching experience. He has published 8 papers in different journals and has authored four textbooks. He is a recipient of MODI Award, National Welding Seminar-1991, Madras and Best Poster Award, International Symposium for Research Scholars-2007, Chennai for his technical papers. He is a member of ISTE, IE (I), IWS and IIFS.

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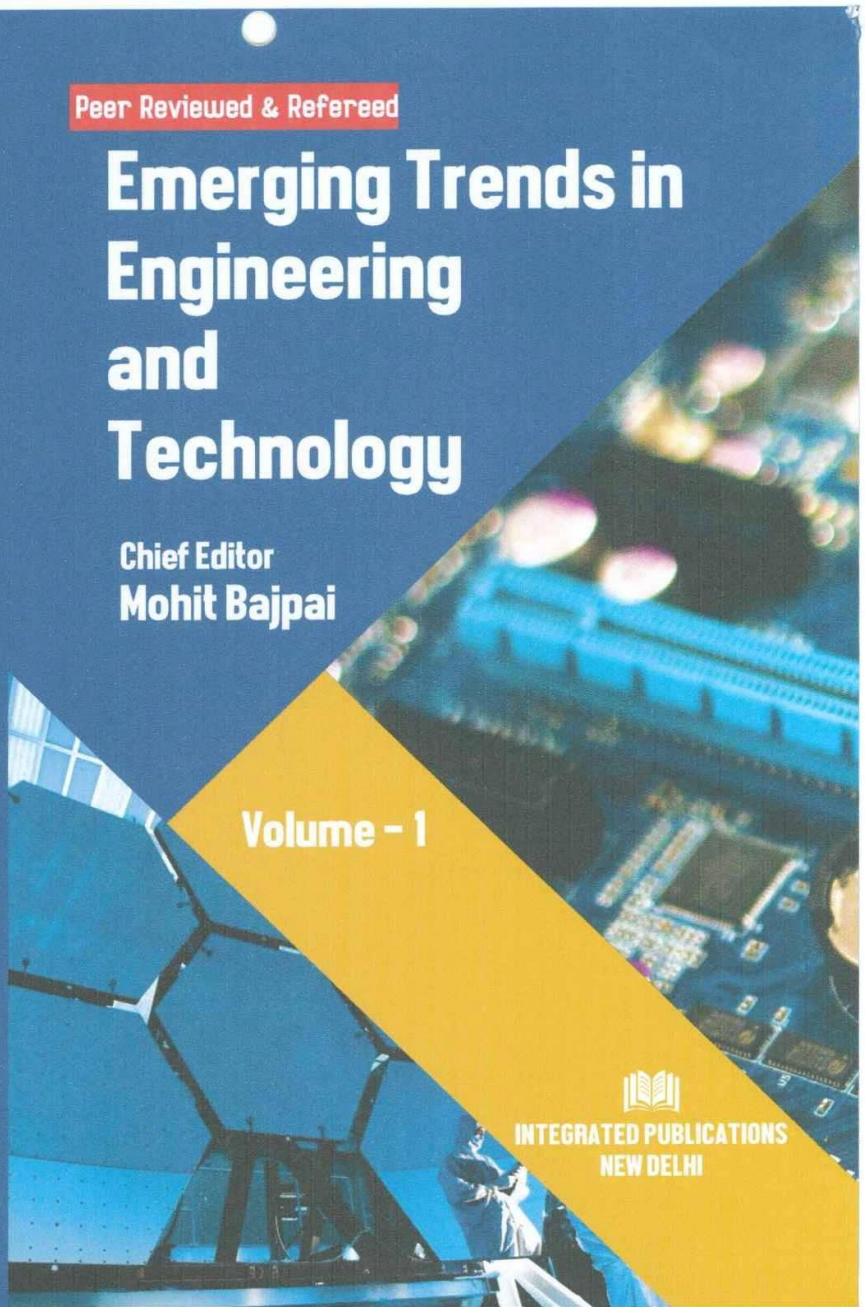

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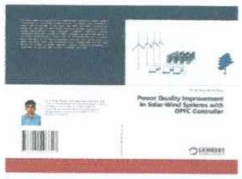

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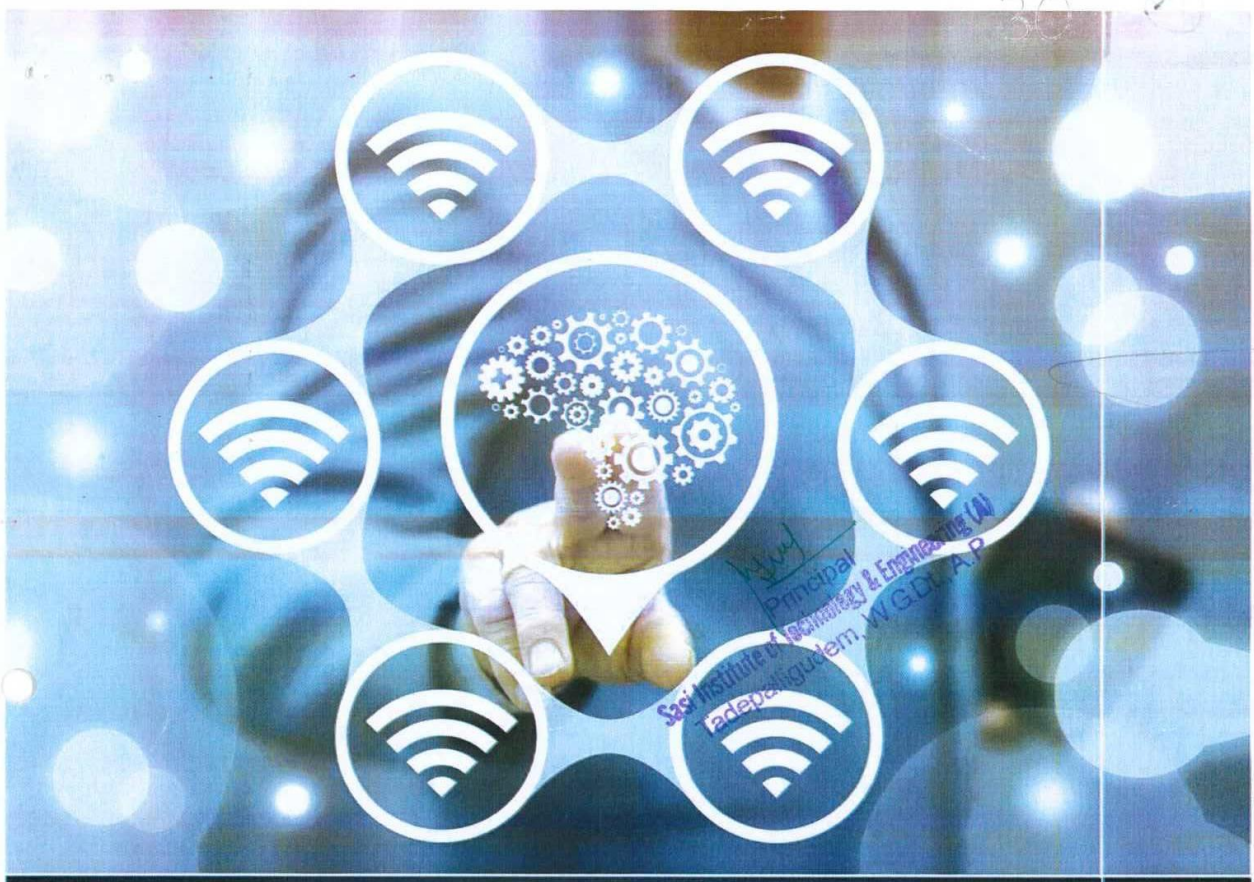

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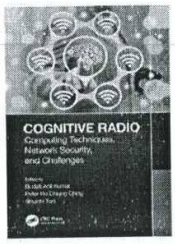

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By T. Venkatakrishnamoorthy (/search?contributorName=T. Venkatakrishnamoorthy&contributorRole=author&redirectFromPDP=true&context=ubx), M. Dharani (/search?contributorName=M. Dharani&contributorRole=author&redirectFromPDP=true&context=ubx), P. Anil Kumar (/search?contributorName=P. Anil Kumar&contributorRole=author&redirectFromPDP=true&context=ubx)

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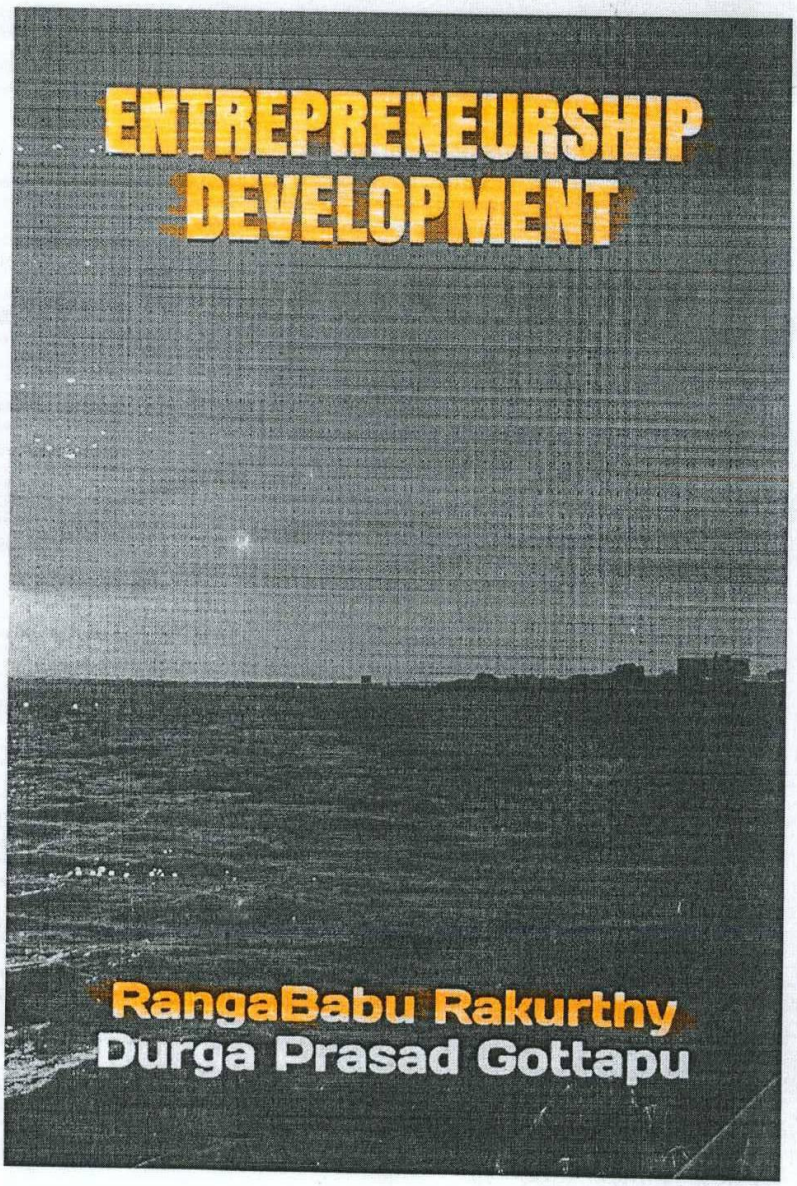

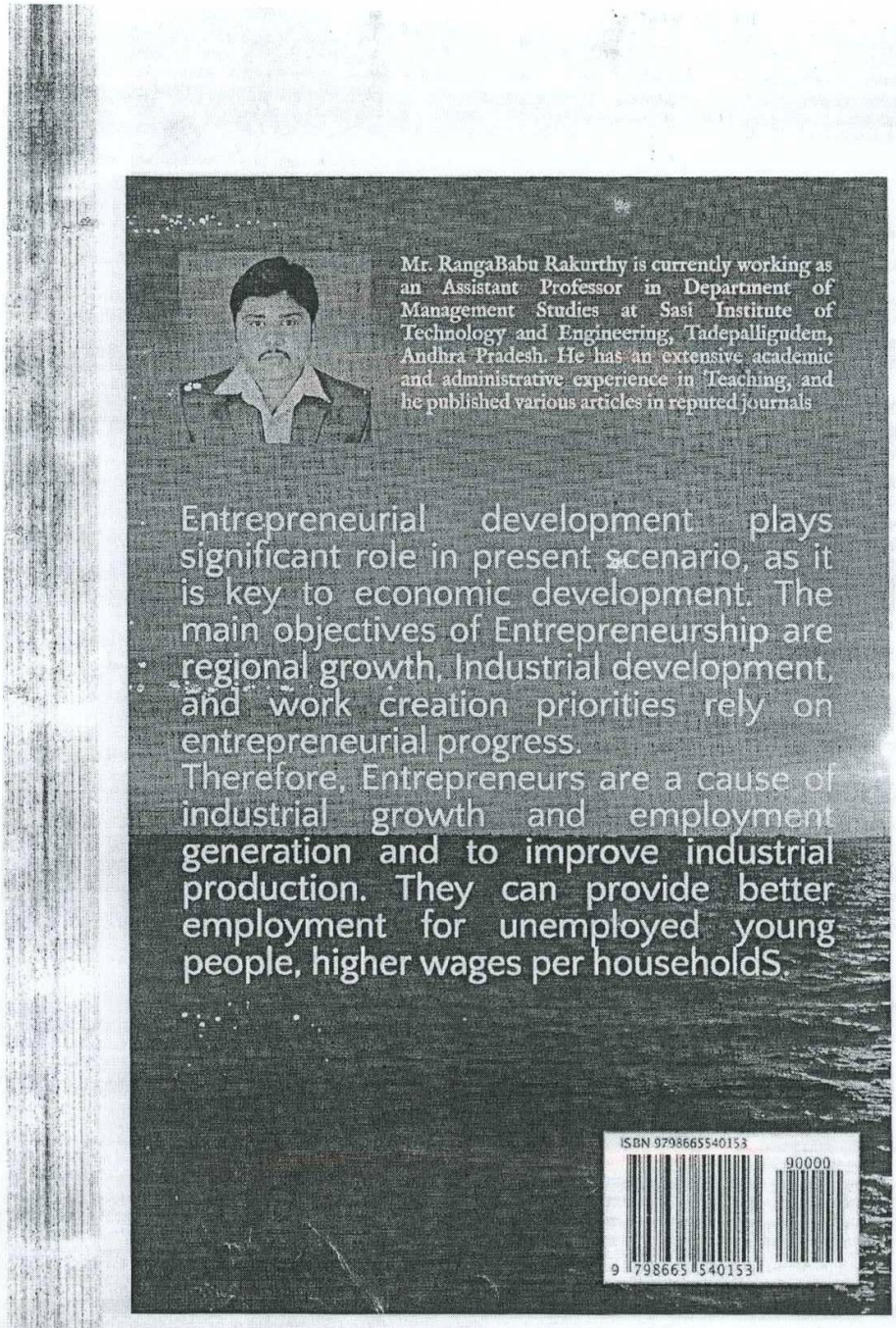

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Lecture Notes in Networks and Systems 244

Padmalaya Nayak
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IoT and Analytics for Sensor Networks

Proceedings of ICWSNUCA 2021

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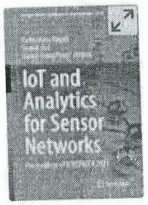

IoT and Analytics for Sensor Networks pp 61–69

RT-GATE: Concept of Micro Level Polarization in QCA

K. Bhagya Lakshmi, D. Ajitha & K. N. V. S. Vijaya Lakshmi

Conference paper | First Online: 12 September 2021

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 244)

Abstract

Quantum-dot Cellular Automata is an evaluation paradigm in which transistors are not used and viable candidate for replacing the CMOS based technology. QCA is one of the boosting nanotechnology devices with the aim to replace the CMOS technology. QCA is implemented by utilizing the tunneling of the electrons with the given potential within the quantum cell. We made an attempt to suggest a multiplexer

About this paper

Cite this paper

Bhagya Lakshmi, K., Ajitha, D., Vijaya Lakshmi, K.N.V.S. (2022). RT-GATE: Concept of Micro Level Polarization in QCA. In: Nayak, P., Pal, S., Peng, SL. (eds) IoT and Analytics for Sensor Networks. Lecture Notes in Networks and Systems, vol 244. Springer, Singapore. https://doi.org/10.1007/978-981-16-2919-8_6

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RT-GATE: Concept of Micro Level Polarization in QCA

Authors : K. Bhagya Lakshmi, D. Ajitha, K. N. V. S. Vijaya Lakshmi

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SMART AGRICULTURE

Emerging Pedagogies of Deep Learning, Machine Learning and Internet of Things

EDITED BY
Govind Singh Patel
Amrita Rai
Nripendra Narayan Das
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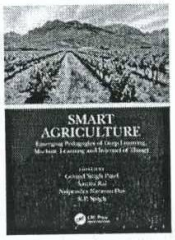

Bio-inspired optimization algorithms for machine learning in agriculture applications

By P.R. MahiDar (/search?contributorName=P.R. MahiDar&contributorRole=author&redirectFromPDP=true&context=ubx), Deepika Ghai (/search?contributorName=Deepika Ghai&contributorRole=author&redirectFromPDP=true&context=ubx)

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Circular Monopole Electromagnetic Band Gap Structured Antenna SLLOptimization using Heuristic

Raghavaraju Aradhyula[1,2], T V Rama Krishna[3], B T P Madhav[3], M C Rao[4] and T Bhavani[5]

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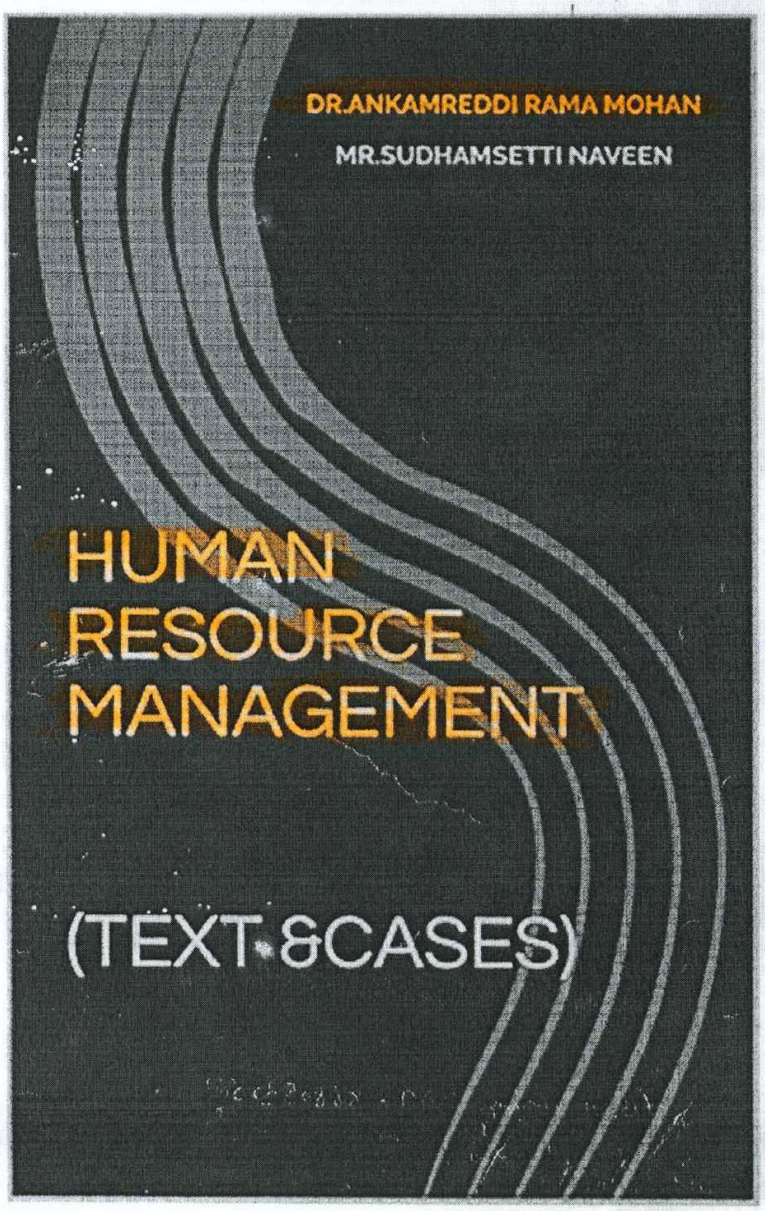
[5] KSR Institute of Technology and Science, Guntur, AP, India

Abstract

Heuristic algorithmis used in the design of electromagnetic band gap structured circular monopole antenna. Design to parametric analysis and optimization with respect to bandwidth enhancement is presented in this work. The proposed algorithm has been compared with famous genetic algorithm and particle swarm optimization algorithm and optimizedside lobe level has been reported in this work. The comparison between simulation and the measurement results matching is supporting the applicability of the work in real time communication modules.



Dr.Ankamreddi Rama Mohan Mr.Sudhamsetti Naveen

Human Resource Management (TEXT &cASES): (Text & Cases)

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Department of Management Studies SASI Insti
Technology & Engineering (Autonomous)
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Mr.Sudhamsetti Naveen Assistant Professor
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Human Resource Management

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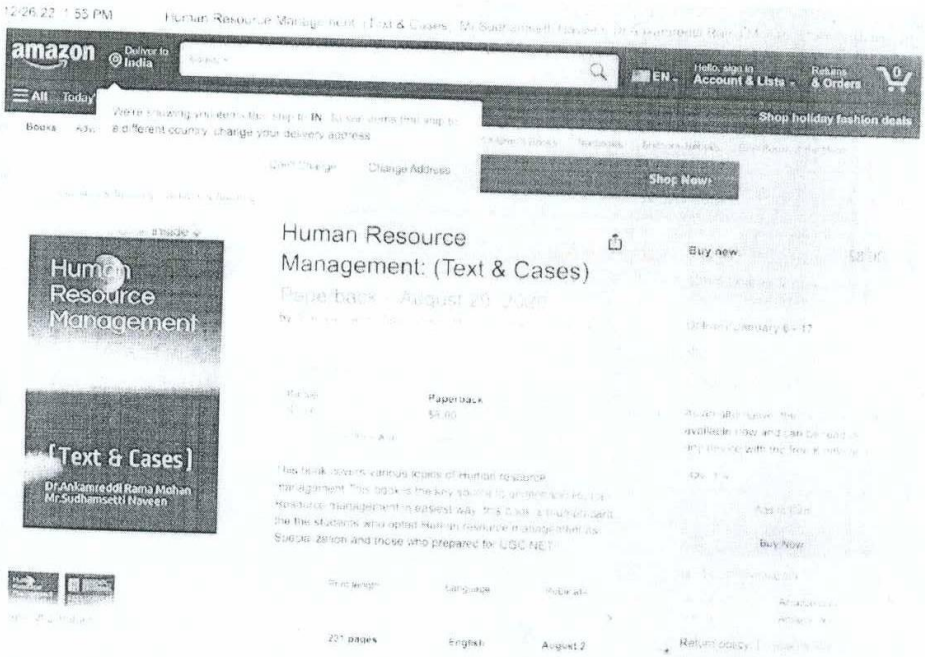

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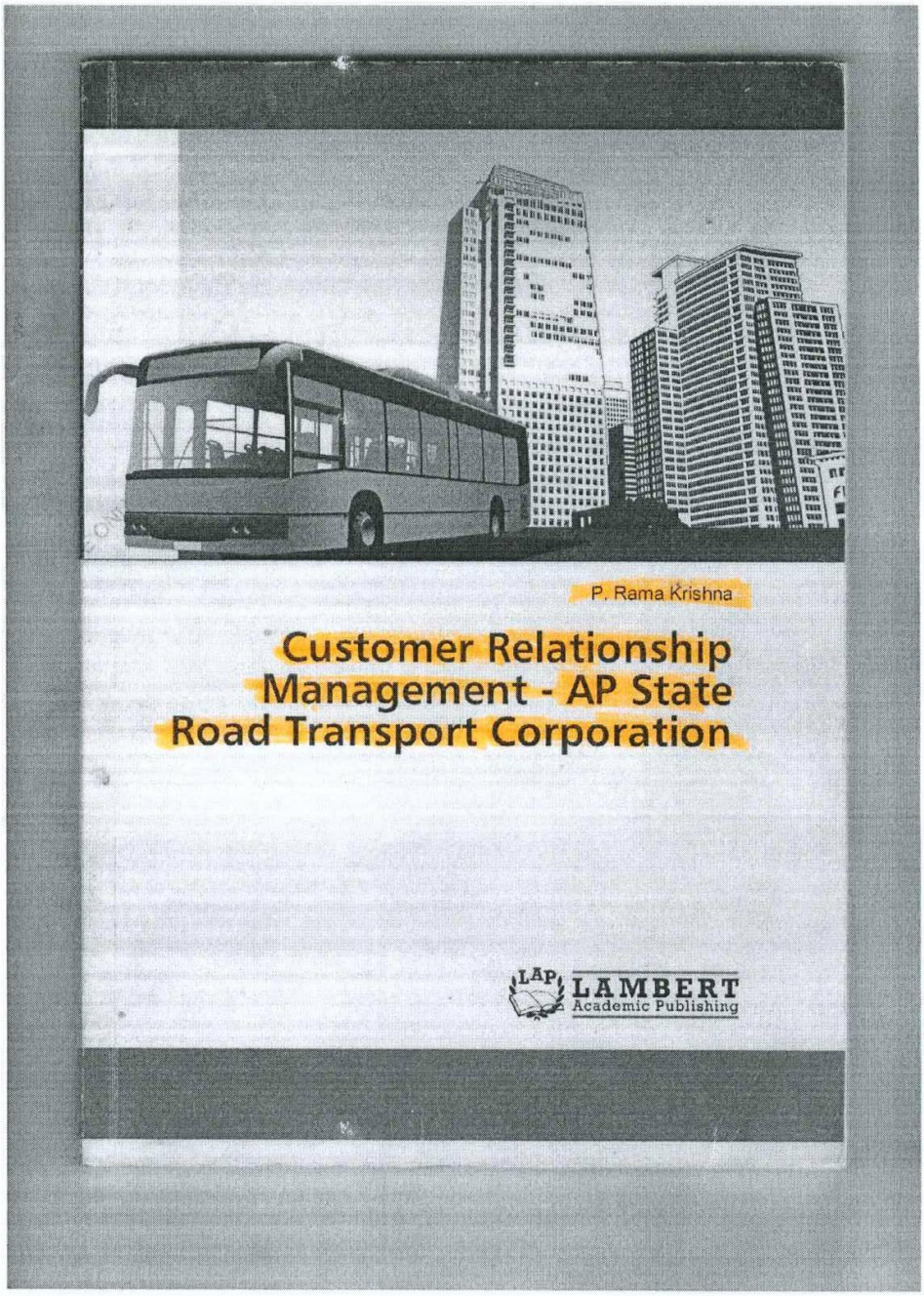

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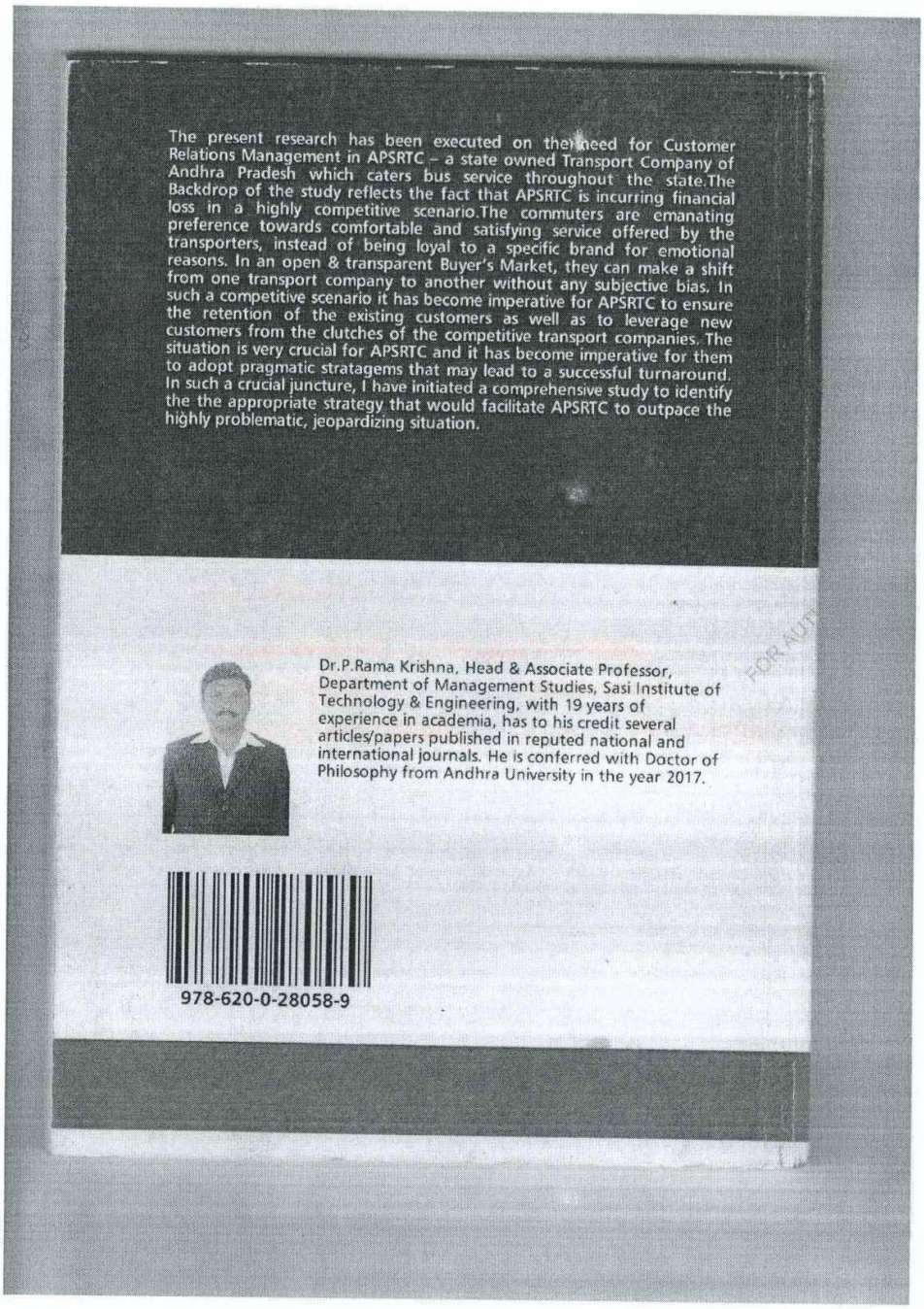

The present research has been executed on the need for Customer Relations Management in APSRTC – a state owned Transport Company of Andhra Pradesh which caters bus service throughout the state.The Backdrop of the study reflects the fact that APSRTC is incurring financial loss in a highly competitive scenario.The commuters are emanating preference towards comfortable and satisfying service offered by the transporters, instead of being loyal to a specific brand for emotional reasons. In an open & transparent Buyer's Market, they can make a shift from one transport company to another without any subjective bias. In such a competitive scenario it has become imperative for APSRTC to ensure the retention of the existing customers as well as to leverage new customers from the clutches of the competitive transport companies. The situation is very crucial for APSRTC and it has become imperative for them to adopt pragmatic stratagems that may lead to a successful turnaround. In such a crucial juncture, I have initiated a comprehensive study to identify the the appropriate strategy that would facilitate APSRTC to outpace the highly problematic, jeopardizing situation.

Dr.P.Rama Krishna, Head & Associate Professor, Department of Management Studies, Sasi Institute of Technology & Engineering, with 19 years of experience in academia, has to his credit several articles/papers published in reputed national and international journals. He is conferred with Doctor of Philosophy from Andhra University in the year 2017.

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P. Satish Rama Chowdary
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Vikrant Bhateja *Editors*

Microelectronics, Electromagnetics and Telecommunications

Proceedings of the Fifth ICMEET 2019

Springer

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Design of a Quad-Band Annular Ring-Loaded Circular Patch Antenna with Meander Line Slot and DGS for Wireless Applications

Mahesh Babu Kota ✉, T. V. Rama Krishna, Ketavath Kumar Naik, E. Eswar Sai Yaswanth, G. Hanimi Reddy & K. Gowtam Chowdary

Conference paper | First Online: 24 June 2020

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 655)

Abstract

In this paper, a quad-band antenna with circular patch antenna loaded with annular ring with CSRR DGS is presented. To improve the impedance bandwidth, a meander line structure is etched on the patch and complementary split ring resonator (CSRR) structure on ground plane of the antenna. The proposed antenna has resonated at quad-band for wireless applications. The operating frequencies

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Proceedings of ESDA 2019

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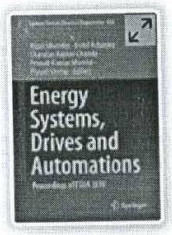


Energy Systems, Drives and Automations pp 659–667

Design a Tri-Band Hexagonal Patch Antenna for Wireless Applications

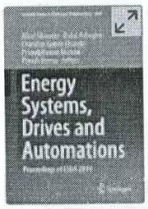
Ketavath Kumar Naik ✉, T. V. Ramakrishna, T. L. Charan & B. V. S. Sailaja

Conference paper | First Online: 01 September 2020

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 664)

Abstract

Design of tri-band hexagonal patch antenna for wireless applications is presented in this paper. The proposed antenna is operated at ultra-wide band at 4.2 GHz, 7.2 GHz, and 10.42 GHz frequencies at wireless applications. The coplanar waveguide (CPW) feeding is considered and slits at four sides and hexagonal split are etched at the center of the patch to operate tri-bands. The proposed antenna parametric analysis has carried out for optimized



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Department of Electrical Engineering, Indian Institute of Engineering Science and Technology, Shibpur, Howrah, West Bengal, India
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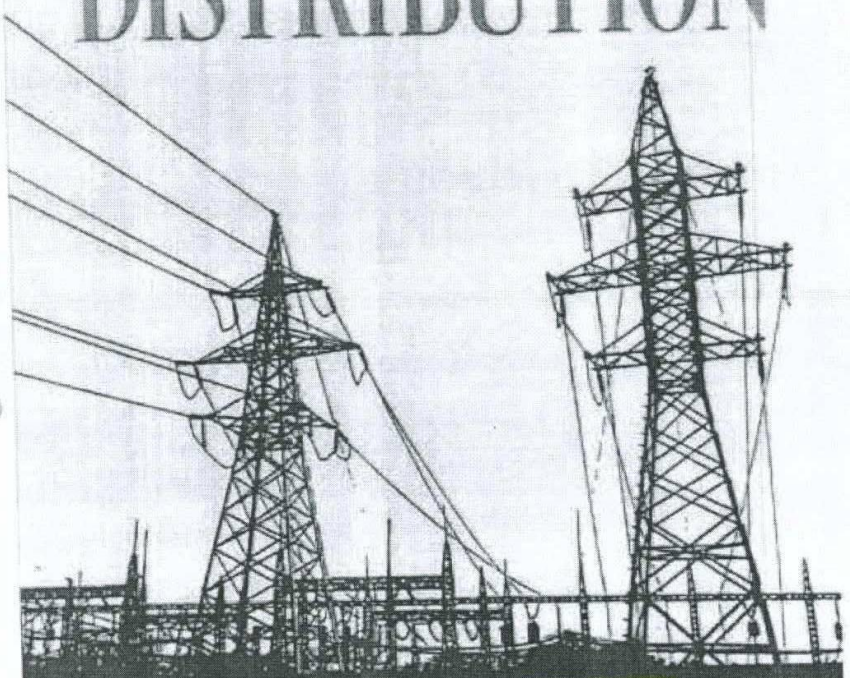

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The conventional algorithm of perturb and observe (P&O) is widely applied due to its simplicity, low cost and easy implementation. This Book presents P&O algorithm to track maximum power from solar panels under dynamic conditions. It uses a constant load technique to help the conventional P&O algorithm for recognizing the cause of power change and to enable it in taking the right decision at first step change in duty cycle during rapid change of weather. The proposed algorithm is simulated using a single solar photo voltaic module of 260 W and a DC/DC boost converter. It is validated experimentally and implemented within an DSP Processor. The experimental setup presents a proposed model-based design methodology that uses measurements' data for MPP tracking systems' design. It combines hardware-in-the-loop simulation and prototype testing using weather measurements.

G.V.Marutheswar
W. A. Augusteen
K. R. Vadivelu

Implementation of Perturb and Observe MPPT Algorithm for Photovoltaic

Dr.K.R.Vadivelu Presently working as a Professor, Department of EEE Rama Chandra College of Engineering,Eluru,AP,India and Dr.G.V.Marutheswar,Professor,Dept of EEE,Sri Venkateswara University College of Engineering Tiruapthi and Dr.W.A.Augusteen,Professor ,EEE Department,Sasi Institute of Technology,Tadepalligudem,AP,India

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Investigation of Weld by Friction Stir Welding of Various Tool Profile

Friction Stir Welding (FSW) is a relatively new solid-state joining process. This joining technique is energy efficient, environment friendly, and versatile. In FSW parameters play an important role like tool design, tool rotational speed, and axial force. To get effective welding joint need to concentrate on process parameters on FSW. Weld quality is predominantly affected by welding input parameters. The welding input parameters in FSW are tool Profile, tool rotational speed, and axial force play a major role in deciding the joint strength. The average FE tool value of weld strength for plane surface tool is 172.27 MPa. The average practical value of weld strength for plane surface tool is 218.91 MPa. The average value of weld strength for conical surface tool in FE tool 177.93 MPa. The maximum weld strength at 822.18oC both conical and plane surface tools are having 207.75 and 205.57 MPa. The average percentage of error is 21.29 for plane surface tool between the practical values and FE tool values. These values are observed that weld strength increase by using conical tool. In present work an attempt has been made to join the pure copper by using FE tool.

Mr. B Krishna Murthy is Assistant Professor in the Department of Mechanical Engineering at Sasi Institute of Technology and Engineering, Tadepalligudem. He graduated in Mechanical Engineering from JNTUH, Hyderabad and obtained M.Tech from JNTUK. Satish Geeri working as Associate professor at Pragati Engineering, Surampalem, A P, India.

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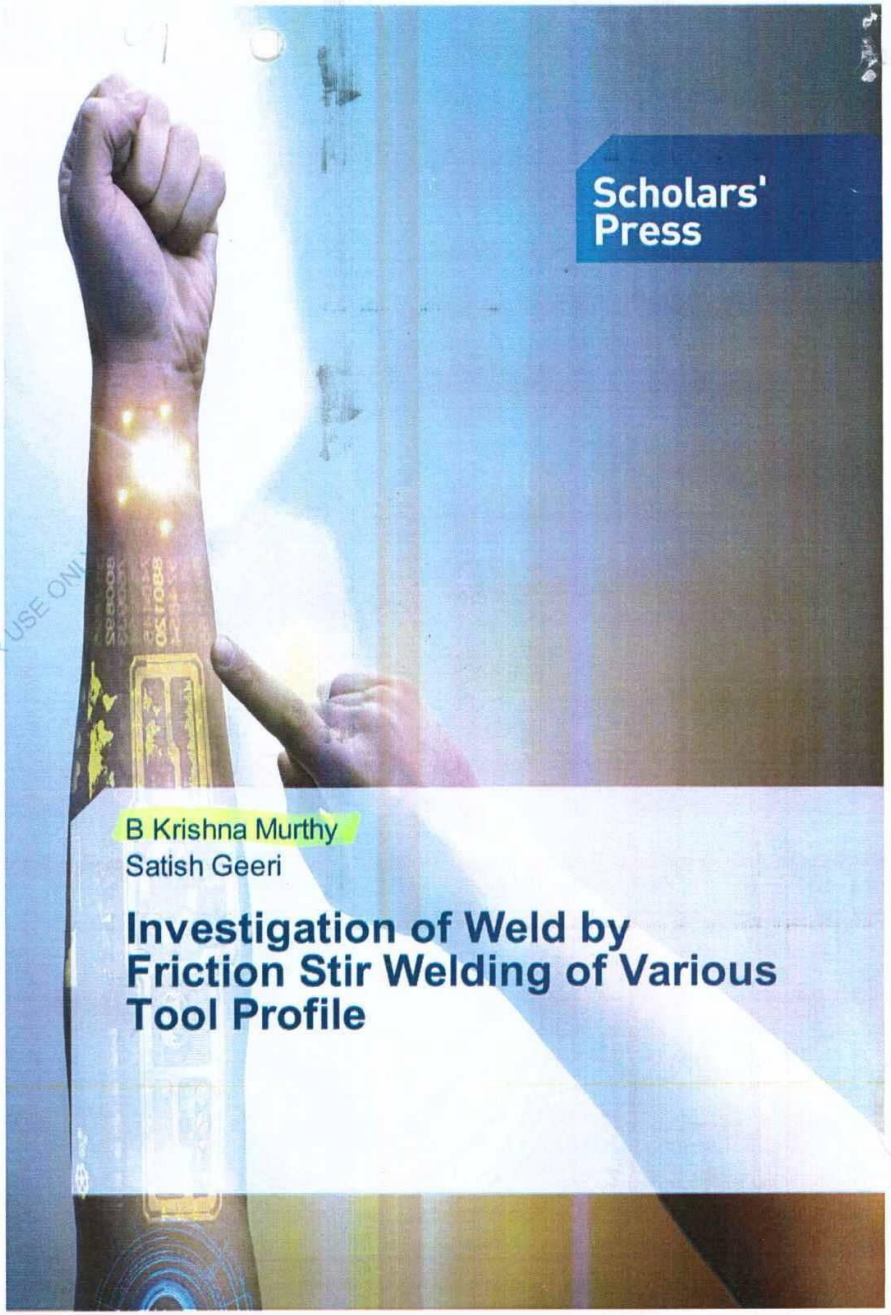

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INVESTIGATION OF WELD STRENGTH OF FRICTION STIR WELDING BY VARIOUS TOOL PROFILES USING FINITE ELEMENT TOOL

B Krishna Murthy, Dr Satish Geeri

Abstract

Friction Stir Welding (FSW) is a relatively new solid-state joining process. This joining technique is energy efficient, environment friendly, and versatile. In FSW parameters play an important role like tool design, tool rotational speed, and axial force. To get effective welding joint need to concentrate on process parameters on FSW. Weld quality is predominantly affected by welding input parameters. The welding input parameters in FSW are tool Profile, tool rotational speed, and axial force play a major role in deciding the joint strength.

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Keywords: Friction Stir Welding, tool Profile, tool rotational speed, axial force, …

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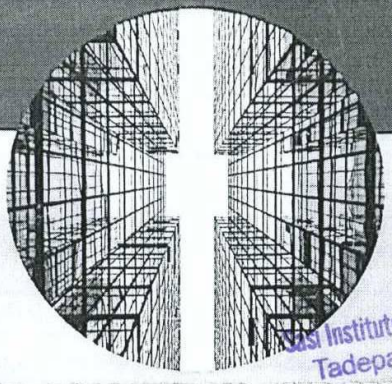

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Contents

Harmonization of Accounting Standards

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Abstract

94.5per cent variation in economic planning utility was explained by various independent variables, internal utility was more influenced on economic planning and it was followed by quality of reporting.86.9 per cent of Variation in single set of accounting standards and it was more influenced by internal utility, followed by reporting utility. The promotion of cross borders was also influenced by internal utility and followed by the minimization of barriers.

Key Words :Economic planning, Single Set of Accounting Standards,Cross Borders.

Introduction : The wider changes in world economy and capital markets and these are integrated and globalized, support the stability of international financial markets, greater mobility of capital with efficient allocation of resources, increasing international transactions with transparency, compare with the global competitors, communicate financial position and profitability to foreign investors, consolidate statements of various subsidiaries of parent company, fair view of accounting in business collaboration and combination, prepare additional financial statements through the multiple reporting to raise capital in the global market.

Review of Literature: Fitriasuri and Titan Terizaghi (2014) confirmed that Based on descriptive analysis results, it is known that the convergence of IFRS has been implemented in the curriculum but the rate of absorption is different. Nadia Albu and CatalinNicolaeAlbu (2014) elaborated that understanding of the accomplishments and challenges in many emerging economies. Evans and John (2014) It was revealed that, regulatory bodies should monitor and enforce these standards but where local content is needed, convergence should be the solution.

Research Models:

Model 1: Promotion of Cross Boarder Investment= a+ a1*FV1+a2*FV2+ a3*FV3+a4*FV4+a5*FV5+ a6*FV6+a7*FV7

Model 2: More Investment by Foreigners due to Similarity in Accounting = a+ a1*FV1+a2*FV2+ a3*FV3+a4*FV4+a5*FV5+ a6*FV6+a7*FV7

Model 3: Harmonization and Streamlining of Internal and External Reporting= a+ a1*FV1+a2*FV2+ a3*FV3+a4*FV4+a5*FV5+ a6*FV6+a7*FV7

Model 4: Single Set of Accounting Standards = a+ a1*FV1+a2*FV2+ a3*FV3+a4*FV4+a5*FV5+ a6*FV6+a7*FV7

Model 5: Useful for Economic Planning = a+ a1*FV1+a2*FV2+ a3*FV3+a4*FV4+a5*FV5+ a6*FV6+a7*FV7

Where a is constant, a1, a2, a3, a4, a5, a6, are unstandardized beta coefficients

FV1=International Utility

FV 2=Reporting Utility or Organizational Utility

FV3=Domestic Utility

FV4=Minimization of Barriers

FV5=Creation of Job Opportunities

FV6=Elimination of Risk

FV7=Quality of Reporting

Table 1: Test of Variation in Economic Planning Utility through the Various Independent Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.972[a]	.945	.942	.220

Source:SPSS

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Table 1: The correlation coefficient was the 0.972 and square of it was 0.945 considered as the utility was explained by the seven factors. The standard error of the estimate (0.220) was very low indicates that it was a fit for regression model.

Table 2:

Null Hypothesis (Ho): There is no significant difference between the economic planning to the factor of variables.

Alternative Hypothesis (Ha): There is a significant difference between the economic planning to the factors of variables

Table 2: Test of Difference between the Economic Planning to the Factor of Variables.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	111.423	7	15.918	328.230	.000[a]
Residual	6.450	133	.048		
Total	117.872	140			

Dependent Variable : Useful for Economic Planning

Source:SPSS

Analysis: The sum of squares of regression value was much more than the sum of squares of the residual values, where df=140, F=328.230, P=0.000, hence, it can be concluded that the proposed null hypothesis was rejected and concluded that there was a significant difference between the economic planning to the factors of the variables

Table 3: Test of More Favorable Response towards the Economic Planning through the Various Independent Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	2.149	.019		115.874	.000
	International utility	.690	.019	.752	37.064	.000
	Reporting utility or organizational utility	.214	.019	.233	11.474	.000
	Domestic utility	.078	.019	.085	4.215	.000
	Minimization of barriers	.121	.019	.132	6.513	.000
	Creation of the job opportunities	-.168	.019	-.183	-9.040	.000
	Elimination of risk	.143	.019	.155	7.662	.000
	Quality of reporting	.453	.019	.493	24.323	.000

Source: SPSS

Dependent Variable : Useful for Economic Planning

Table 3: This table distributes the coefficients of the various factor variables. This table shows that the international utility was more favorable towards the economic planning, followed by the quality report, organizational utility, elimination of risks, and minimization of barriers, domestic utility and creation of job opportunities

Table 4: Test of Variation in a Single Set of Accounting Standards through the Factor Components.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.932[a]	.869	.862	.299

Source:SPSS

Table 4: The correlation coefficient was 0.932 and square of it was the 0.869 considered as the coefficient of determination. It indicates that 86.9 percent variation in a single set of accounting standards was explained by the factor components.

Table 5:

Null Hypothesis (Ho): There is no significant difference between the factor components to the single set of accounting standards.

Alternative Hypothesis (Ha): There is a significant difference between the factor components to the single set of accounting standards.

5: Test of Difference Between A Single Set of Accounting Standards and the Factor Variables

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	78.713	7	11.245	126.154	.000[a]
Residual	11.855	133	.089		
Total	90.567	140			

Source: SPSS

Dependent Variable: A single set of accounting standards would enable international auditing firms to standardize training and assure better quality of their work on a global scale.

Analysis: The sum of squares of regression value was much more than the sum of squares of the residual value, where df=140, F=126.154, P=0.000, and concluded that the proposed null hypothesis was rejected and inferred that there was a significant difference between the factor components to the single set of accounting standards.

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Table 6: Test of More Favorable Response towards the Single Set of Accounting Standards

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	1.823	.025		72.494	.000
	International utility	.504	.025	.627	19.971	.000
	Reporting utility or organizational utility	.376	.025	.468	14.914	.000
	Domestic utility	.170	.025	.212	6.753	.000
	Minimization of barriers	.010	.025	.012	.393	.695
	Creation of the job opportunities	-.112	.025	-.139	-4.439	.000
	Elimination of risk	.009	.025	.011	.365	.716
	Quality of reporting	.353	.025	.439	14.007	.000

Source: SPSS

a. Dependent Variable: A single set of accounting standards would enable international auditing firms to standardize training and assure better quality of their work on a global scale.

Table 6: This table explains about the coefficients of the factor variables to the single set of accounting standards. The international utility was more favorable towards the single set of accounting standards, followed by the organizational utility, quality report, domestic utility, elimination of risks, and minimization of barriers and creation of job opportunities.

Table 7: Test of Variation in the Promotion of Cross Borders through the Factors of Variables.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.971[a]	.943	.940	.216

Dependent Variable : Promotion of Cross-Borders Investment

Source: SPSS

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Table 7: The table shows that the correlation coefficient was 0.971, and square of it was 0.943 and it indicates that the 94.3 percent of variation in the promotion of gross borders was explained by the factors of variable components

Table 8:

Null Hypothesis (Ho): There is no significant difference between the promotion of gross borders investment to the factor components.

Alternative Hypothesis (Ho): There is a significant difference between the promotion of gross borders investment to the factor components.

Table 8: Test of Difference between the Promotion of Gross Borders Investment to the Factor Components.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	102.972	7	14.710	313.881	.000[a]
Residual	6.233	133	.047		
Total	109.206	140			

Source: SPSS

Dependent Variable :Promotion of Cross-Borders Investment

Analysis: The sum of square of regression value much higher than the sum of squares of the residual values, where F=313.881, df=140, P=0.000 and concluded that the proposed null hypothesis was rejected and concluded that there was a significant difference between the promotion of gross borders investment to the factors.

Table 9: Test of More Favorable Response towards the Promotion of Gross Borders Investment to the Factor Components.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	2.518	.018		138.099	.000
	International utility	.698	.018	.790	38.124	.000
	Reporting utility or organizational utility	.254	.018	.287	13.860	.000
	Domestic utility	.189	.018	.214	10.306	.000
	Minimization of barriers	.270	.018	.306	14.749	.000
	Creation of the job opportunities	.100	.018	.114	5.482	.000
	Elimination of risk	.242	.018	.274	13.222	.000
	Quality of reporting	.088	.018	.099	4.794	.000

Source: SPSS

Dependent Variable: Promotion of Cross-Borders Investment

Table 9: The table tells us that the international utility was more favorable towards the promotion of cross-borders investment, followed by the minimization of the barriers, organizational utility, elimination of risks, domestic utility, job opportunities and quality report

Findings of the Study: After verifying the analysis of the data the following findings were observed.

1. 94.5 percent of variation in economic planning was explained by the composite score factors (seven) and there was a significant difference between them.
2. The study witnessed that, international utility was more favorable towards the economic planning, followed by the quality report, organizational utility, elimination of risks, and minimization of barriers, domestic utility and creation of job opportunities.
3. 86.9 percent of variation in single set of accounting standards was explained by the composite factors and there was a significant difference between the single set of accounting standards to the composite score factors.

4. The study found that the international utility was more favorable towards the single set of accounting standards, followed by the organizational utility, quality report, and domestic utility, elimination of risk, minimization of barriers and creation of job opportunities.

5. 94.3 percent of variation in promotion of cross borders was explained by the composite factors and there was a significant difference between the promotions of cross borders investment to the composite scores.

6. The study also observed that international utility was more favorable to promotion of cross borders investment, followed by the minimization of barriers, organizational utility, elimination of risks, domestic utility, job opportunities and quality report.

Conclusion and Suggestions: Hence, it can be concluded that promotion of cross borders investment is possible and also harmonization in single set of accounting standards .It is hopeful that IFRS definitely leads to success in all economic and accounting aspects of the country.

References:

1. Namita Rajput, RitikaAhuja and VipinAgarwal (2014), "International Financial Reporting System: Issues and Challenges in India", Global Journal of Finance and Management, 6,(9) , 809-812

2. Evans O.N.D. Ocansey and John A. Enahoro (2014), "Comparative Study Of The International Financial Reporting Standard Implementation In Ghana And Nigeria", European Scientific Journal, 10,(13) , 529-546.

3. David R. Borker(2012), "Accounting, Culture, And Emerging Economies: IFRS In The BRIC Countries", Journal of Business & Economics Research, 10 (5), 313-324.

4. David Tweedie and Thomas R. Seidenstein (2005), "Setting a Global Standard: The Case for Accounting Convergence", Northe western journal of international law& Business, Volume 25 (3), 589-608.

5. Dhankar, Raj S. and Gupta, Amit (2014), "Transition to International Financial Reporting Standards (IFRS) or IND as in India" Global Journal of Finance and Management, 6(7), 609-614

6. Jean J. Chen and Peng Cheng (2007), "The Impact of Regulatory Enforcement on Harmonization of Accounting Practices: Evidence from China", Journal of Contemporary Accounting C? Economics l3 (1), 58-71.

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IFRS in Indian Accounting System

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[2]Director, S.D. College of Information Technology, Tanuku, AndhraPradesh, India

Abstract

Presently, there are units of accounting standards which can be universal for international.. The attempt to attain congruence with IAS seems to be greater a spinoff of the USA's speedy financial growth instead of its catalyst. however, endured growth and the appeal of overseas capital to home ventures will depend on the transparency of the monetary dealings. the worldwide monetary disaster surfaced the dearth of transparency approximately the risks to which investors were uncovered from their involvement with 'off-stability-sheet cars' (inclusive of securitization automobiles).

Key Words: Accounting Standards, IFRS, IASB, IAS, GAAP, USA etc.,

1. Introduction

The agency in a single united states of America is borrowing within the capital market of some other us consequently, economic statements produced in one USA are used in another country increasingly frequently; this has raised the issue of harmonization of accounting guidelines, presentation, disclosure, etc. To acquire the whole harmonization, may not be viable due to a difference in the financial, political, prison and cultural surroundings in countries. however, a lot deviation may be eliminated with the aid of standardization of accounting practices, so that it will bring about the issuance of accounting requirements. Accounting standards are being mounted both at national and worldwide tiers. but, the variety of accounting requirements a number of the countries of the world has been a problem for the globalization of the enterprise surroundings. usually, commonplace accounting ideas (GAAP) are numerous in nature however primarily based on some simple standards as encouraged by means of all GAAP policies. these concepts inc consistency, relevance, reliability and comparison

II. Objectives of the Study

1. To think about the ramifications of significa IFRS in the current circumstance and the pro in receiving IFRS.
2. To think about the possibility of Interna Financial Reporting Standards will influen Indian corporate.

III. Literature Review

Santanu Kumar Das did take a look at entit "Indian Accounting requirements and IFRS" wit yr of 2014. the main aim of this study is to for this worldwide accounting standards would cas frictional detail to capital flows and lead to wi deeper funding in markets with IFRS is likewis interest of the enterprise when you consid compliance with them would be capable of crea self-assurance in the mind of investors and re cost of raising foreign capital.

Bhattacharjee did look at entitling of "prob Adoption and alertness of global monetary R requirements (IFRS) in Bangladesh within 2009. the main goal of this look at to potent IFRS adoption and their effect on the re reporting environment of Bangladesh thinking a underlying institutional and financial elements

IV. Research Technique

. The information will be absolutely auxili be gathered through different sites and diarie distributed books.

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Corporate Social Responsibility in India

Kusuma Bathula

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:t:

iness is considered as a part and parcel of ial, political, and economic systems. It can ardeu as the activity carried on by the through the people, and for the people. ss it receives inputs from the society in the raw materials, labor, capital, information s responsible for the effective utilization of u s and for the delivery of goods and s to the society. Business organizations identify their stakeholders and satisfy The present paper deals with the meaning orate social responsibity, its importance porate social responsibility. And per also deals with various companies social sibility activities across India.This paper uses on what comes under CSR.

words: Corporate Social Responsibility, Social, . Economical

iction:

way it is understood and implemented differs or each company and country. Moreover, CSR broad concept that addresses many and various d human rights, corporate governance, and safety, environmental effects, working ns and contributions to economic development. er the definition is, the purpose of CSR is to ange towards sustainability. Although some ies may achieve remarkable efforts with unique

ance of Corporate Social isibility:

demonstrates that you're a business that takes ss under social issues, rather than just those act your profit margins, which will attract customers who share the same values. Therefore, it makes good business sense to operate sustainably.

Benefits of Corporate Social Responsibility:

The benefits of CSR speak volumes about how important it is and why you should make an effort to adopt it in your business.Some clear benefits of corporate social responsibility are:

- Improved public image. .
- Increased brand awareness and recognition.
- Cost savings.
- An advantage over competitors.
- Increased customer engagement.
- Greater employee engagement.
- More benefits for employees.

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Four Faces of Social Responsibility:

1. **Economic** : Responsibility to earn profits for owners
2. **Legal:** Responsibility to comply with the law
3. **Ethical:** Not acting just for profit, but doing what is right, just and fair
4. **Voluntary and philanthropic:** Promoting human welfare and goodwill. Being a good corporate citizen contributing to the community and quality of life

CSR Activities:

- Eradicating hunger, poverty & malnutrition, promoting preventive health care & sanitation & making available safe drinking water;
- Promoting education, including special education & employment enhancing vocation skills especially among children, women, elderly & the differently unable & livelihood enhancement projects;

Human Resource Accounting System in Indian Companies

B.Aruna

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Abstract

Human resources are considered as important assets and are different from the physical assets. Physical assets do not have feelings and emotions, whereas human assets are subjected to various types of feelings and emotions. In the same way, unlike physical assets human assets never gets depreciated.Therefore, the valuations of human resources along with other assets are also required in order to find out the total cost of an organization.

Keywords: Global Economic Scenario, Manufacturing Economy, Quality of Human Resource, Cost of an Organization.

Introduction: According to Stephen Knauf, ' HRA is the measurement and quantification of human organizational inputs such as recruiting, training, experience and commitment'.

The need for human asset valuation arose as a result of growing concern for human relations management in the industry.

Objectives of HRA:

Rensis Likert described the following objectives of HRA:

1. Providing cost value information about acquiring, developing, allocating and maintaining human resources.
2. Enabling management to monitor the use of human resources.
3. Finding depreciation or appreciation among human rces.
4. ng in developing effective management
5. Increasing managerial awareness of the human resources.
6. For better human resource planning.
7. For better decisions about people, b improved information system.
8. Assisting in effective utilization of manpow

Historical Development of Human Reso Accounting

The importance and value of human as recognized in the early 1990s when there w increase in employment in the firms o technology and other knowledge-based secto organizations, human capital contributed signif the shareholder value. Soon after, the manu industry also seemed to realize the importance humans as assets. Rudimentary traces of HR found in the Medieval European practice of the cost of keeping a prisoner vis-a-vis th future earnings from him. Howev representations were very rough with limited

The development of HRA as a syste detailed academic activity, according t Flamholtz (1999) began in the sixties. He d development into the following 5 stages;

FIRST STAGE (1960-66)-

SECOND STAGE (1966-71)-

THIRD STAGE (1971-76) -

FOURTH STAGE (1976-80) -

FIFTH STAGE (1980 onwards) -

practical application, from mid 90's th been on greater ap tion of

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An Impact of Demonetization on Financial In
Some contemporary Issues in Indian Financia

Dr. A. Rama Mohan

Professor, Department of Management Science, Sasi Institute of Technology and Engineering
Tadepallgudem, W.G. Dist. A.P. India, I may be available at arammohan@sasi.ac.in Mobile: +9

Abstract

Demonetization influence on the financial inclusion. The main objectives of the paper are to trace out the factor which is more influence to the financial inclusion, verify the constrains usageof digital transactions to implement the cashless economy for success of demonetization and identify the strategies for safe digital transactions for success of the demonetization. The study found that 59.3 per cent variation was explained through the various factors, credit access, money transfers, business operations, welfare programmes, tax avoidances, and black money, counterfeit currency and growth of SMEs. It curbs the problem of counterfeit currency was more influence on the financial inclusion and it was followed by the growth of SMEs in medium and the efficiency in welfare programme.

Key Words: Financial Inclusion, Growth of SMEs, Digital Transactions, Cashless Economy and Demonetization, Welfare programme

Introduction: Demonetization plays an important role in the promotion of financial inclusion. The financial inclusion influences the economy in the form of elimination of fake currency, transparency in transactions, reducing the funding of the terrorists, transparency in flow of funds in financial sector. Hence, demonetization useful to positive impact on financial inclusion. It requires financial literacy among the people, specifically for rural people.

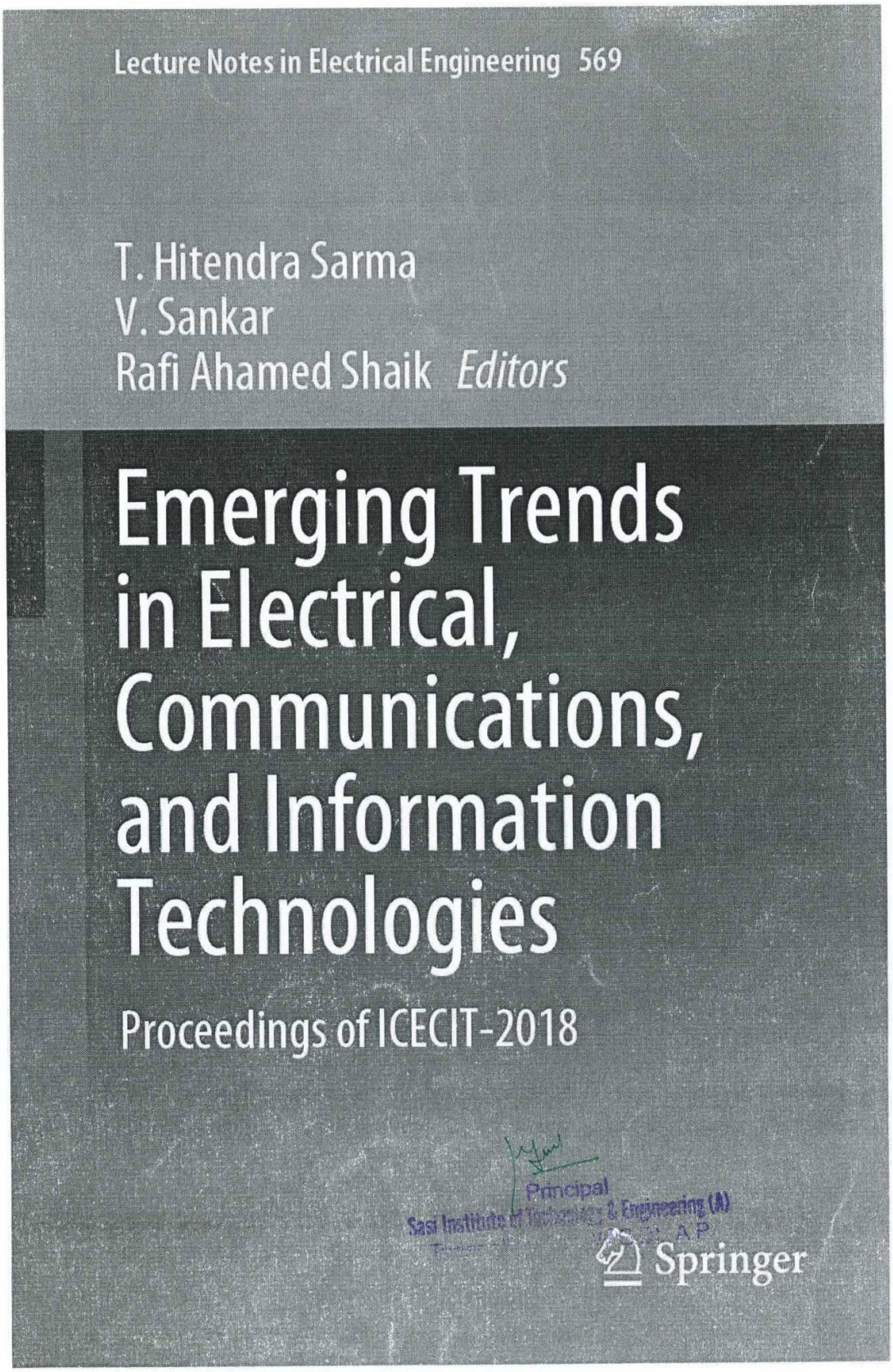
Review of Literature:. K Veera Kumar(2017) pointed out that demographical factors of an individual have a association with the influence of the demonetization .Lokesh Uke (2017) opined that demonetization was useful to red and black money . Even though negatively influenced , but in the impact on the economy of Ind emphasized on demonetization use money , funding towards the emphasized on the real estate sect entertainments ,restaurants and Kumari, Jhanvikhanna (2017) payment on growth of an econ financial stability useful for money of black money. Hasan et al (20 positive influence on the activities (2012) opined that cashless ec curtail the corruption. Liao and that electronic payments replaced base payment

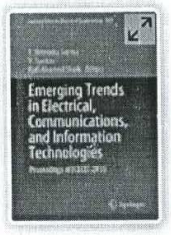
Objectives of the Study: The out with the following objectives

1. To identify the factor more in inclusion.
2. To examine the obstacles of th transactions to implement the success of demonetization.
3. To frame a required stra transactions for success of th

Methodology of the Study through the structured ques respondents and applied the analysis.

Analysis of the Study: Th multiple regression analysis and which factor influence to the fina





Emerging Trends in Electrical, Communications, and Information Technologies pp 557–563

2:1 MUX Implementation Using NMV-Gate: NON MAJORITY GATE in QCA

D. Ajitha ✉, K. N. V. S. VijayaLakshmi, K. BhagyaLakshmi & M. Mehetaj

Conference paper | First Online: 25 September 2019

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 569)

Abstract

Quantum-dot Cellular Automata (QCA) is one of the emerging transistors less nanotechnology implemented utilizing electron tunneling with the given potential. In this paper, we proposed a design for 2:1 multiplexer in QCA using NON MAJORITY GATE. In this work, a new design of NAND and NOR gates are proposed. By using the NAND gate structure, the proposed multiplexer is implemented.

Ajitha, D., VijayaLakshmi, K.N.V.S., BhagyaLakshmi, K., Mehetaj, M. (2020). 2:1 MUX Implementation Using NMV-Gate: NON MAJORITY GATE in QCA. In: Hitendra Sarma, T., Sankar, V., Shaik, R. (eds) Emerging Trends in Electrical, Communications, and Information Technologies. Lecture Notes in Electrical Engineering, vol 569. Springer, Singapore. https://doi.org/10.1007/978-981-13-8942-9_46

CENGAGE Learning

ENGINEERING PHYSICS

Ch. Srinivas | Ch. Seshu Babu

ENGINEERING PHYSICS

This book titled ***Engineering Physics*** is very useful to I-year B. Tech. engineering graduates of all branches, and it is designed to cover the syllabus of JNTU Kakinada as well as other universities in India to reach the pinnacle of knowledge in Physics. The strengths of this book are use of simple language, applications used to explain the different topics, and provision of self-analytical questions for students to judge their understanding.

Key Features

- Each topic is explained using simple language with lucid presentation.
- Every topic from all units is presented in an application-orientated form.
- Every chapter is provided with solved problems in a simple way to grasp the theme of subject.
- Rich pool of review problems, review questions, and objective questions is presented.

About the Authors

Ch. Srinivas, Professor, Physics, Sasi Institute of Technology and Engineering, Tadepalligudem, W.G.Dt, did M.Sc in Physics with Electronics as specialization and received Ph.D in the area of Ferrites from Andhra University, Visakhapatnam. He has 19 years of teaching experience and 9 years of research experience. He has published research papers in national and international journals and also presented technical papers in national and International workshops and symposiums. He has published Laboratory manuals in Physics, useful for degree and engineering graduates. Presently, he has been into research and is associated with BARC, Mumbai.

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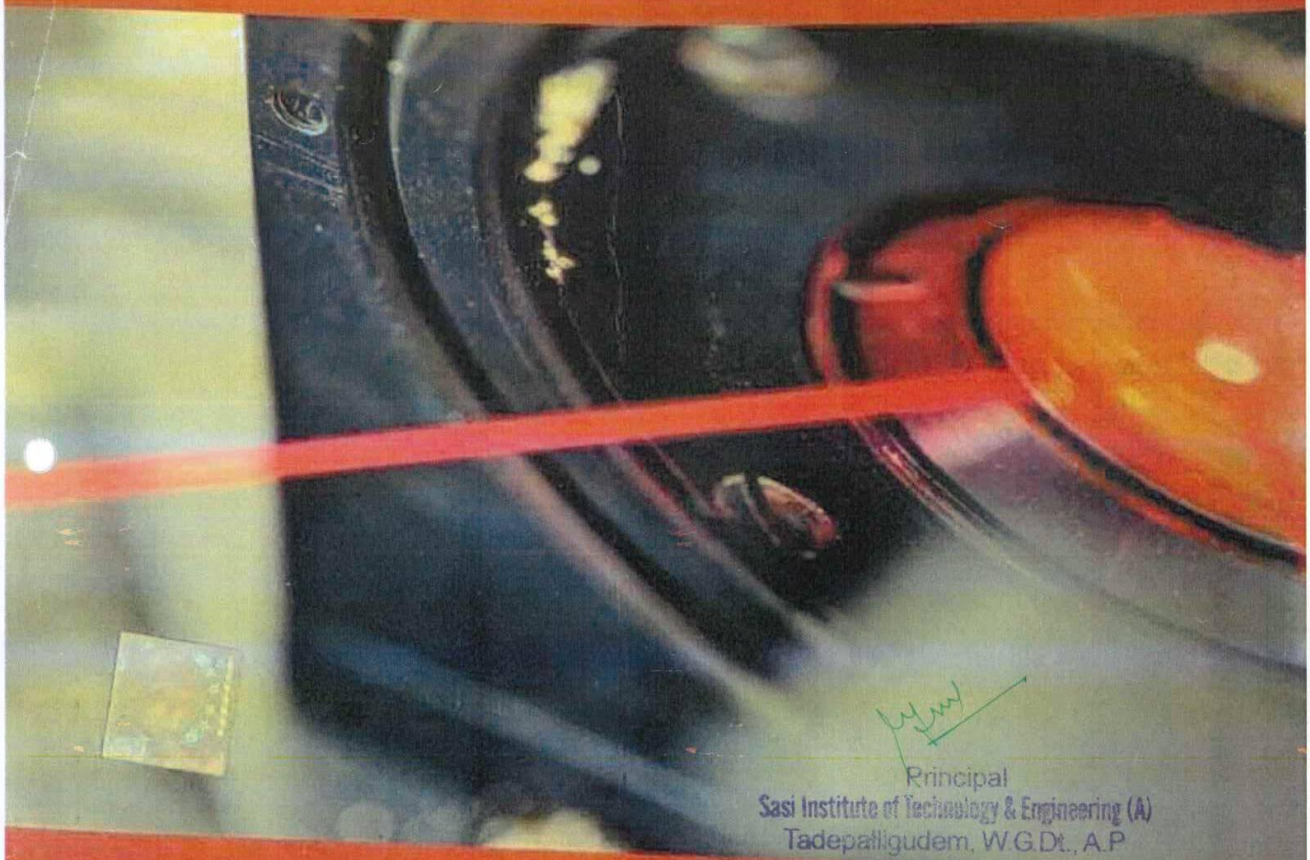

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Engineering Physics

This textbook has been developed with a strong emphasis on the engineering applications of Physics. It provides a strong conceptual foundation of fundamental physics upon which the engineering and technological applications are built. It is a comprehensive textbook for engineering students. It offers an overview of the subject with numerous solved and unsolved problems. It provides an exclusive coverage on topics such as: **Interference, Diffraction, Polarization, Lasers, Quantum mechanics, Electron theory of metals, Band theory of solids, Semiconductors, Acoustics, Ultrasonics, Crystal structure, X-ray diffraction, Crystal defects, Mechanical properties of materials, Magnetic materials, and Dielectrics**. Some of the advanced topics covered are: **Superconductivity**. Problems from university question papers are also discussed. A rich pool of pedagogy includes a variety of examples, practice problems, and objective-type questions.

Key Features

- Each topic is explained using simple language with lucid presentation
- Every topic from all units is presented in an application-orientated manner
- Every chapter is provided with solved problems in a simple way to grasp the theme of subject
- A rich pool of review problems, review questions, and objective questions is present

About the Authors

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