CRITERION III	RESEARCH INNOVATION AND EXTENSION	110

3.3 RESEARCH PUBLICATION AND AWARDS (25)

3.3.2-Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years (15)

TABLE OF CONTENTS

An overview of FPGA based control paradigm for micro grid applications

Publisher: IEEE

Cite This

PDF

Sumeet Kaur ; Sudhir Sharma ; Charul Jain All Authors

Abstract:

This paper summarizes the control of power in discrete areas of power generation with the application of programmable array of logic devices linked by configurable interconnections in a single circuitry called as Field Programmable Gate Array (FPGA). The paper throws light on the fundamentals of FPGA architecture, design structure and programming techniques. In the later segment, power conditioning methods using existing and advance FPGA tools for PV power generation, wind power generation and the integrated grid system designs are discussed.

Published in: 2017 International Conference on Inventive Computing and Informatics (ICICI)

Date of Conference: 23-24 Nov. 2017

INSPEC Accession Number: 17789441

Date Added to IEEE *Xplore*: 28 May 2018

DOI: 10.1109/ICICI.2017.8365376

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities Held on 22nd – 23rd April 2017, in Singapore ISBN: 978099890000

A REVIEW ON HIGH PHASE ORDER TRANSMISSION SYSTEM OVER THREE PHASE DOUBLE CIRCUIT TRANSMISSION SYSTEM

MUKESH
Electrical engineering department,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

SUDHIR SHARMA
Associate Professor,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

AKHIL BHATIA
Electrical engineering department,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

RAGHAV SHARMA
Electrical engineering department,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

SHIVANI MEHTA
Assistant Professor,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

PARDEEP KAUR
Electrical engineering department,
D.A.V.I.E.T. Jalandhar,
Punjab, INDIA

Abstract: - With the increasing demand of Electrical energy in the present time with the development of the new and advanced technologies, engineers are dealing with the problem of bulk power transmission over the large distances, for which a number of technologies have been used till now. Some of which includes HVDC transmission, HVAC transmission and HPO Transmission system. Of all these transmission systems HPO transmission system is the emerging option for the bulk power transmission over the long distance transmission lines despite the fact that HVDC has many advantages over the conventional AC system like less losses in the transmission lines, less number of conductors used, and non-synchronous ties etc. because, HVDC incorporate the following disadvantages like high cost of terminal equipment, inability to step-up and down, and inability to transfer reactive power between the two ends which are fulfilled by conventional HVAC transmission system but with the increase in demand of energy requirement our conventional HVAC system needs to be upgraded to higher number of phases which can be the future of the transmission system for bulk power transmission over the long distances. This paper reviews the Advantages and Disadvantage of upgrading the present Double circuit three phase transmission lines to six phase transmission lines with the results from the different researches and test results and different types of faults that occur in HPO transmission system.

Keywords: - High voltage direct current, High voltage alternating current, High phase order

1. INTRODUCTION

Conventionally the high power transmission system uses three phase as for power transfer with each phase displace by an angle of 120 degrees and line voltage equal to √3 times the phase voltage and power equals to $2*3\ V_{ph}\ I_{ph} \cos\phi$ while the six phase system has the

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities Held on 22nd – 23rd April 2017, in Singapore ISBN: 9780998900001

SPEED CONTROL AND PERFORMANCE ANALYSIS OF SYNCHRONOUS GENERATORS IN A WIND FARM USING FUZZY CONTROL SYSTEM

Tanuj Mishra
Electrical Department, DAVIET,
Jalandhar, Punjab, India

Sudhir Sharma
Associate Professor,DAVIET
Jalandhar, Punjab, India

Shivani Mehta
Electrical Department, DAVIET,
Jalandhar, Punjab, India

Abstract—This paper deals with the execution of a wind farm by using fuzzy control system for productivity advancement and execution. A wind farm comprising of multiple wind turbines associated with a three fuzzy control system which feeds power for distribution system. One fuzzy control is being used for detecting the change in the speed of the synchronous generator with respect to the wind speed for extracting the maximum power out of it. Secondary Fuzzy controller used to detect flux for improving the efficiency during light load. Third fuzzy controller gives vigorous control against turbine oscillation due to wind vortex.

Keywords— Wind, Fuzzy, Synchronous generator, Wind farm, MPPT.

I. INTRODUCTION

The fossil fuels are exhausting. So alternate source ventures are turning out to be more essential now a days. If we compare with fossil fuels and nuclear energy, wind energy conversion system is getting more consideration since it is most cost focused, natural perfect and ecofriendly power source. Late advancement of power devices and control drive innovation has helped the acknowledgment of smooth control of speed during variable input system[1]. While by executing certain calculations and with the assistance of certain control strategies we could enhance the power yield of the wind energy system and in the meantime the productivity of the system can be improved. If we see the statistics as per GWEC, in recent years most of the installations are being done in the wind generation system and countries like china, US, Germany Spain and India has got most of the share[2]. The fundamental issue which happens in the wind energy transformation is that the execution of the wind turbine is exceptionally subject to the force of wind. Regarding ecological conditions in India, consistent stream of wind is startling[3]. During soft start in wind turbine fluctuation happens and because of the change of wind stream the rotational speed changes in the meantime the yield force of generator associated with the turbine is straight forwardly corresponding to the wind speed[4]. The fundamental target is to investigate the execution of a wind farm by utilizing fuzzy controls for improving the efficiency.

II. WIND ENERGY

As long as sun is there, wind energy is there, Wind energy is essentially a type of sunlight energy and brought about because of the uneven warming of the air, abnormalities of the surface of earth[5]. As per Betz's limit the most extreme power extracted from the wind with the assistance of wind turbine is 59.3%.

Enhanced fundus images by using hybrid neighbourhood estimator before filling with ACO

Publisher: IEEE

Cite This

PDF

Rajesh Kochher ; Prabhjot Kaur **All Authors**

Abstract:
Diabetic Retinopathy is an eye disorder that leads to blindness caused by damage in retina. For this reason the exact recognition of vessels become difficult. In order to overcome this difficulty and early detection of eye diseases there are various vessel segmentation techniques. This paper presents a Hybrid Neighbourhood Estimator before Filling (NEBF) with ACO which enables us to segment vessels even in low intensity of images. We Firstly extracted the exudates from fundus image then applying NEBF. NEBF is an inpainting filter which is used to inpaint exudates so that false positives are reduced in image. The ACO is applied based on segmentation. The proposed method is tested on DRIVE database. This provides us with better results over the existing methods even in the case when low depth of images.

Published in: 2017 International Conference on Computing, Communication and Automation (ICCCA)

Date of Conference: 5-6 May 2017

INSPEC Accession Number: 17433946

Date Added to IEEE *Xplore*: 21 December 2017

DOI: 10.1109/CCAA.2017.8229820

Outline

Show full outline

Reference Module in Materials Science and Materials Engineering
2017

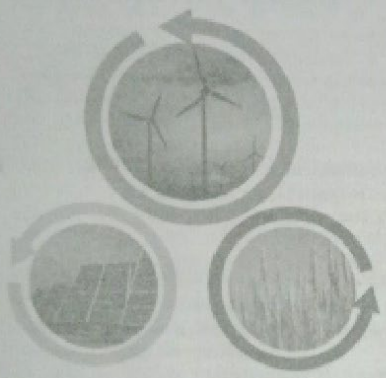
Effect of Cryogenic Treatment on Ultrasonic Machining of Titanium and Its Alloys: A Review

R. Singh, G. Dhuria, A. Batish

Show more

https://doi.org/10.1016/B978-0-12-803581-8.04157-6

SUSTAINABLE DEVELOPMENT THROUGH GREEN INITIATIVES



SRI GURU GRANTH SAHIB WORLD UNIVERSITY
FATEHGARH SAHIB, PUNJAB (INDIA)

CORPORATE ENVIRONMENTAL REPORTING IN SELECTED COMPANIES IN INDIA

Sukhdev Singh*, Annumeet**

ABSTRACT

The aim of present study is to investigate the environmental reporting and disclosure practices of selected domestic and multinational manufacturing companies. The period of study is five years ranging from 2012-13 to 2016-17. The focus of present study is to determine to what extent the natural environment is an important issue for companies operating in India. The key findings of the study show that Environmental Disclosure Index (EDI) is widely used to find out the actual disclosure practices in the companies. It has been found that the bigger and profitable companies disclosed more environmental information in their annual reports.

Keywords: Corporate Environmental Reporting, Environmental Disclosure Index, Environmental Practices, Global Reporting Initiative.

INTRODUCTION

Corporate Environmental Reporting (CER) has been developed over a similar period of time as environmental management system tool & its purpose is to communicate an organisation's environmental performance to its stakeholders. In practice, corporate environmental reporting is being implemented by larger companies along the lines of traditional annual financial reports. The key reporting elements of corporate environmental reporting are management policies & systems, input/output inventory of environmental impacts, financial implications of environmental actions, relationships with stakeholders & the sustainable development agenda. Sometimes corporate environmental reporting combined with social and economic reporting provides information on a company's performance against 'Triple Bottom Line' criteria (UNEP 2002b). Corporate environmental reporting is the practice of measuring; disclosing & reporting to internal & external stakeholders the organizational environmental performance so as to achieve the goal of sustainable development and to enable such stakeholders assess their relationship with the reporting entity

*Professor & Head, Deptt. Of Business Administration, Guru Nanak Dev Engineering College, Ludhiana
**Research Scholar, Deptt. Of Management, Punjab Technical University, Jalandhar

DAVIET
Engineering Futures Through Innovation

NANYANG TECHNOLOGICAL UNIVERSITY
Prof. Dr. Ma Maode

IRP Publication

Ministry of Electronics & Information Technology Government of India

Digital India

Certificate for Participation

This is to certify that **DR NEERU MALHOTRA**

has attended & delivered an Oral Presentation in

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities

held in Singapore on April, 22nd-23rd, 2017

Paper Title : **ANALYSIS OF VARIOUS ROUTING ALGORITHM BASED ON SUCCESSIVE LINK FAILURES BY EMPLOYING DIFFERENT APPLICATIONS**

INNOVATIVE RESEARCH IRP PUBLICATION Seal

Dr. Ma Maode	Dr. Manoj Kumar	Er. Chetan Sikka	Dr. Sudhir Sharma
(Program Chair)	(Program Chair)	(President IRP)	(Conference Convener)

DAVIET
Engineering Futures Through Innovation

NANYANG TECHNOLOGICAL UNIVERSITY
Prof. Dr. Ma Maode

IRP Publication

Ministry of Electronics & Information Technology Government of India

Digital India

Certificate for Participation

This is to certify that **DR. NEERU MALHOTRA**

has attended & delivered an Oral Presentation in

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities

held in Singapore on April, 22nd-23rd, 2017

Paper Title : **A NOVEL SMILEY SHAPED FRACTAL ANTENNA DESIGN FOR X AND KU BAND**

INNOVATIVE RESEARCH IRP Seal PUBLICATION

Dr. Ma Maode	Dr. Manoj Kumar	Er. Chetan Sikka	Dr. Sudhir Sharma
(Program Chair)	(Program Chair)	(President IRP)	(Conference Convener)

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities Held on 22nd – 23rd April 2017, in Singapore ISBN: 9780998900001

PERFORMANCE COMPARISON OF SIMO FREE SPACE OPTICAL LINKS IN STRONG TURBULENT ATMOSPHERIC CONDITIONS

Rajan Miglani
School of Electronics and Electrical Engineering,
Lovely Professional University, India,

Lavish Kansal
School of Electronics and Electrical Engineering,
Lovely Professional University, India,

Shippu Sachdeva
School of Electronics and Electrical Engineering,
Lovely Professional University, India,

Sartaj Singh
School of Computer Application,
Lovely Professional University, India

Jagjit Singh Malhotra
Department of ECE,
DAVIET, Jalandhar

Abstract-Free space optical links involve transmission of optically modulated signal through atmosphere as medium of propagation. However, variations of atmospheric conditions, labeled as atmospheric turbulence is major issue affecting performance of free space optical links. To mitigate the effect of turbulence, use of spatial diversity techniques has been suggested in this paper. Comparison of bit error rates with single input multiple output (SIMO) diversity with single input single output (SISO) FSO link over Double Generalized Gamma channel model has been presented in the following sections of the paper. In order to ascertain the impact of strong turbulence on FSO links, the results obtained using Double Generalized Gamma have also been compared with existing conventional channel modeling techniques like Gamma-Gamma and K-distribution. It was observed that double generalized Gamma model is far more accurate model to estimate channel performance for strong turbulent conditions. While for similar set of conditions, SIMO links are more reliable for any given choice of channel modeling.

Keywords- Free space optical communication, Double Generalized Gamma model, Gamma Gamma Gamma model, K-distribution, spatial diversity, atmospheric turbulence, Bit error rate.

I. INTRODUCTION

Free space optical are line of sight links that involve transmission of high speed data is in terms of light signal through wireless media or more conveniently called as free space in free space optical communication (FSO). Inherent properties of FSO (a) it is license free technology (b) provides high data rates (c) highly secure point to point communication [1] etc have made FSO as an popular choice of future to replace or compliment existing RF networks .But there are also some factors which degrade the FSO performance, atmospheric turbulence being the most prominent amongst them. The turbulence occurs with change in refractive index and temperature of atmosphere [2] causing formation of small and large

International Interdisciplinary Conference on Science Technology Engineering Management Pharmacy and Humanities Held on 22nd – 23rd April 2017, in Singapore ISBN: 9780998900001

PERFORMANCE INVESTIGATIONS ON HIGH CAPACITY OPTICAL COMMUNICATION LINK

Gagandeep Singh Thind
Department of ECE,
IKG-PTU Regional Centre at DAVIET,
JALANDHAR

Jagjit Singh Malhotra
DAV Institute of Engineering & Technology,
Jalandhar

ABSTRACT

Telecommunication traffic (voice, data etc.) is increasing day by day. So to meet the capacity demand, in this paper we have designed and verified a high capacity optical fiber communication system through simulation. We simulated a 60 Gbps 32-channel optical fiber link for telecommunication traffic transmission which could be possible to implement in developing countries with few modifications in their existing optical fiber transmission link. We have used OptSim5.1 software to simulate it. Designed multi-channel optical fiber link length was 3000 km with the help of four different types of data formats namely NRZ, RZ, CRZ, CSRZ and the best BER was found to be 2.3763e-016 in case of CSRZ data format with best eye- opening, further to remove the non- linearity namely Four wave Mixing (FWM) present in the system we use Optical-Phase-Conjugator (OPC) which suppresses FWM power penalty and improves the performance of the system.

Keywords: BER, EDFA, FWM, WDM.

1. INTRODUCTION

In today's information age, there is a large and rapidly growing demand for transporting information from one place to another. This demand is very diversified—ranging from relatively low-capacity, short-distance private home connections to ultra-high capacity transoceanic submarine connections between continents. Optical communication systems have proven to be a very suitable method for moving massive amounts of information over long distances at a low cost. Today almost all long-haul high-capacity information transport needs are fulfilled by optical communication systems [1-2]. Internet traffic growth is the prime driver for increasing the capacity of today's fiber optic systems. It is well understood that the internet traffic is increasing, but there is no strong consensus on the actual rate of increase. Most people have realized that the over-hyped statement "The internet is doubling every three months" is not true today, but it is doubling every couple of years [3–5], which still makes it one of the fastest growing markets in the world. The increasing internet data traffic has inevitably leaded to future capacity upgrades. For the next generation of optical communication systems to fulfill future capacity demands, state-of-the-art system design is required to effectively compensate and minimize nonlinear signal degradation. Advanced data formats are the key to improve the transmission performance and to achieve high spectral efficiency.

2. WDM SYSTEM DESIGN

Love Kumar

3 Dimensional WSN: An energy efficient network

Authors Er Robin Chadha, Love Kumar, Er Jatinderpal Singh

Publication date 2017/4/7

Conference 2017 2nd International Conference for Convergence in Technology (I2CT)

Pages 1169-1175

Publisher IEEE

Description A typical wireless sensor network contains large number of wireless nodes with sensing, data conditioning and communication capabilities [1]. All these processes consume energy for which they have to rely on their onboard batteries. Replacement and recharging of these batteries is difficult. So several strategies have been implemented to compute the energy efficiency[2] of wireless sensor network. In this paper, we are going to present an experimental evaluation of energy efficiency which depends on parameters such as energy consumption, latency and dropped frame in a 2 dimensional and 3 dimensional scenario of 100 nodes WSN. So for computing the energy efficiency of WSN, we compare the mean energy consumption, average dropped frames and latency of nodes with respect to number of packets, positioning of nodes (dimension-wise) and type of modulation (MSK or OQPSK16). OMNET++ 4.5 is used ...

Overview on Microgrid System

Publisher: IEEE

Cite This PDF

Vijay Kumar Garg ; Sudhir Sharma All Authors

Abstract:

Demand of the electricity is increasing day by day due to industrial development and rise in living standards The need of electricity can't be fulfilled alone by fossil fuels as they are depleting with passage of time. We h others ways to fulfil the energy demand of such. In recent time, there is research going on in the field of rene which seems to be achieving a great height day by day. Development of smart grid and microgrids are in a f with development of distributed generation under smart and microgrid, there is need for managing the energ this paper, various terms related to microgrid, control structure, distributed energy sources and energy mana microgrid etc. are discussed and an overview is given to understand the microgrid.

Published in: 2018 Fifth International Conference on Parallel, Distributed and Grid Computing (PDGC)

Date of Conference: 20-22 December 2018

INSPEC Accession Number: 18792162

Date Added to IEEE *Xplore*: 27 June 2019

DOI: 10.1109/PDGC.2018.8745849

ISBN Information:

Publisher: IEEE

ISSN Information:

Conference Location: Solan, India

1. Introduction

Generation of electricity can be done with conventional and non-conventional sources of energy. The conventional energy sources are exhausting at a high rate and they will be lasted for next few decades. Imagine the world without power and that too in the 21st century, everything will be at halt whether industries g as well as home appliances. Day by day power is becoming an important aspect of our life. The everlasting energy demand, along with environmental anxieties and emergir of private players as well as competition has attracted interest in large deployment of Non-Conventional Sources (NCS) [1]

Outline

materialstoday: PROCEEDINGS
Volume 5, Issue 9, Part 3, 2018, Pages 19230-19236

Evaluation of Tensile Strength in Friction Stir Welded Aluminum alloy 6101-T6 and commercially pure Copper joints

Nitish Kumar [a], Gaurav Kumar Dhuria [b], Rajbir Singh [c]

Raj Publishers (Regd.)

COMMERCIAL LAWS

B.Com 2nd Semester (G.N.D.U.)

Dr. Suman Tandon
M.Com. (Gold Medalist)
M.Phil. (Gold Medalist)
Officiating Principal
M.L.U. DAV College, Phagwara

Mrs. Kajal Kiran
M.Com. (Gold Medalist)
M.Phil. (Gold Medalist)
Assistant Professor in Commerce
M.L.U. DAV College, Phagwara

Ravi Sidhu
M.Com., M.Phil., (UGC Net)
HOD in Commerce
St. Soldier College
Danishmanda, Jal.

Vinayak Chadha
M.Com.
Assistant Professor in Commerce
Guru Nanak Dev Univ. College
Pathankot

2018

RAJ PUBLISHERS (REGD.)
Adda Tanda, Jalandhar
Phone : 0181-5059881, 98142-16628
Email Add. : rajpublishers@yahoo.co.in

ISSN 2395-079X

Cornucopia

PUNJAB BHAWAN

PREM CHAND MARKANDA
S.D. COLLEGE FOR WOMEN
JALANDHAR CITY
(Reaccredited Grade A+ by NAAC)

Vol. III Issue 3 2018

'PARVAS TE PARVASI SAHIT' PRESENT AND FUTURE

Department of Punjabi
In Collaboration with
Punjab Bhawan Surrey, Canada

Statement about Ownership and Other Particulars of the Journal- Cornucopia-Research Journal of Language and Literature

Form-5
(Rule 8)

1	Printer's Name	:	PCM SD College for Women
	Nationality	:	Indian
	Address	:	Nehru Garden Road, Jalandhar-144001
2.	Place of Publication	:	Jalandhar
3.	Periodicity of Publication	:	Annual
4.	Publisher's Name	:	PCM SD College for Women
	Nationality	:	Indian
	Address	:	Nehru Garden Road, Jalandhar-14400
5.	Chief Editor's Name	:	Dr. Kiran Arora
6.	Name and address of the individuals who own the newspaper and Partners or share-holders holding more than one percent of the total capital	:	PCM SD College for Women
7.	Printed at	:	Aastha Prakashan, Jalandhar EF. 350 Partap Bagh Mob. 98145-27152

I, Dr. Kiran Arora, hereby declare that the particulars given above are true to the best of my knowledge and belief.

(Sd/-)
Dr. Kiran Arora
(Signature of the Publisher)

IMMIGRANTS: PROBLEMS AND CHALLENGES

ABSTRACT

Humans have a tendency to excel in life. They do anything to enhance their personality, prestige, social esteem and economic status. The overall happiness factor of a person mostly depends upon the money which can buy the man's needs and wants. If the adequate opportunities for job or trade are not available in one's own country, then person shifts his goal post to foreign countries which are economically much developed in comparison to the one's home country. When person settles in any host country, there he has to face many problems in terms of social, cultural, racial, psychological and finally last but not least, problem of difference of ideology of their kids which are born in host country.

INTRODUCTION

Since time immemorial man has a desire to achieve, gain or discover something. From the Stone Age with the discovery of fire to this modern age man has found the ways and means to fulfill his desires in terms of food, shelter, clothes, transportation etc. It was not possible for a single individual to make all the desired things so man became dependent on other persons for some of his needs and this fulfillment of need started with barter system, means the goods prepared by one individual is exchanged with the different goods prepared by other individual. So man was able to fulfill his need. Subsequently with a passage of time after barter system, money became the means for paying salaries, services and trade. To work and earn money man moved to new villages, cities, states and ultimately when he did not found enough opportunities in his home country he moved to other countries. This act of people to live in other countries is known as immigration.

Millions of people leave their native countries and move to foreign soil in search of greener pastures. The trend of immigration of Indians started in 19th century and gained momentum in 20th century. In 21st century also immigration is going on a large scale. Now not only graduates and post graduates but even students of 12th standard are migrating to countries like Australia, Canada, U.K, and U.S.A which are economically developed and provide better life style.

"Immigrant is a person who has come to live in a country from some other country."

"According to the UN department of economic and social affairs data, India has the largest diaspora in the world…….. Indian population in UK is 1,451,862. In United States

Programming With LabVIEW

(From Fundamentals to Advance in LabVIEW & Dedicated Hardware - USRP 2920 and Vector Signal Transceiver VST 5644R)

First Edition

June 2019

Gaurav Soni

&

Dr.Manoj Kumar (Professor and Principal)

Department of Electronics & Communication Engineering
DAVIET, Jalandhar
(Accredited by NAAC with Grade 'A')

ISBN-: 9781074890131

Kindle Direct Publishing (KDP)
Amazon Publishing Services
Kenosha, Wisconsin, U.S.A

Design of Printed Circuit Board for Retrofit Kit of Smart Energy Meters

Kiran Ahuja ; Arun Khosla All Authors

Abstract:
In the present electricity billing framework the distribution organizations can't monitor the changing demands of the consumers. The consumer is confronting issues like accepting due bills for charges that have just been paid and in addition poor reliability of power supply and quality regardless of whether bills are paid consistently. The solution for every one of these issues is to monitor the consumers load on real-time basis, which will be held to guarantee precise amount charging, track the most extreme request and detect the threshold value. In this paper, we propose a Printed Circuit Board (PCB) design of a retrofit kit attached with the conventional electricity meter to make it smart and address the issues faced by both the consumers and the distribution organizations. The retrofit kit incorporates two wireless technologies i.e. Global System for Mobile (GSM) and Wi-Fi for data transfer ubiquitously. The resulted in smart energy meter (SEM) is robust and reliable one.

Published in: 2018 First International Conference on Secure Cyber Computing and Communication (ICSCCC)

Date of Conference: 15-17 December 2018

INSPEC Accession Number: 18637391

Date Added to IEEE *Xplore*: 02 May 2019

DOI: 10.1109/ICSCCC.2018.8703275

ISBN Information:

Publisher: IEEE

Conference Location: Jalandhar, India

I. Introduction

An energy meter is an electric device utilized for measuring energy consumed by various entities such as residential, industry etc. To make existing energy meters smart, a small kit is fixed with these for monitoring data, collecting its values and remotely control it without any human intervention. Conventional energy meters with retrofitting kit are installed close to the end consumers. It provides two-way communication by using communication m

er conventional energy meters are unable to

Influence of Strip Footing Resting on Geogrid Reinforced Induction Furnace Slag Beneath Silty Clay

J. Sudheer Kumar and Sumanav Wadhwa

Abstract This research work was performed to understand the effect of bearing capacity of strip footing resting on reinforced and unreinforced Induction furnace slag with silty clay layer below. The parameters investigated to the study are H/B (Top granular layer thickness), u/B (location of the first layer of reinforcement to level of footing), h/B (vertical spacing between consecutive geogrid layers to width of footing) b/B (width of the geogrid layer to width of footing). The effect of different values of N and H/B ratios on bearing capacity ratio (BCR) and settlement reduction ratio (SRR) are also investigated. The model tank test is carried out on silty clay soil; the ultimate bearing pressure of the soil obtained is 221.33 kN/m^2 at settlement of 98.45 mm. Induction slag is compacted at relative density of 60% and varying the H/B, u/B and h/B values (H/B = 1.0, 1.5, 2.0 and h/B, u/B = 0.75, 0.5), model strip footing tests were performed on Induction furnace slag. The bearing pressure increases by 182% for H/B equal to 1.5 for Induction furnace slag compared with silty clay. The relative density is kept constant at 60% and H/B equal to 1.5 the geogrids are placed at interface and within the Induction slag layer (N = 1, 2, 3) and the tests were performed. The ultimate bearing pressure increases by 275%, 486% and 537% for N equal 1, 2 and 3, respectively. The BCR (bearing capacity ratio), SRR (settlement reduction ratio) and IF (improvement factor) are calculated for the same. The present research, the industrial waste products such as copper slag and induction furnace slag can be replaced with the conventional granular materials (gravel, sand) in highway subbase layer, reinforced earth walls as a structural fill and shall be used to improve the low bearing capacity areas.

Keywords Induction furnace slag · Silty clay · Geogrid · Strip footing · Bearing capacity

J. Sudheer Kumar (✉) · S. Wadhwa
Department of Civil Engineering, DAV Institute of Engineering and Technology, Jalandhar, Jalandhar, Punjab, India
e-mail: sudheeriitd@gmail.com

A. K. Agnihotri et al. (eds.), *Environmental Geotechnology*, Lecture Notes in Civil Engineering 31, https://doi.org/10.1007/978-981-13-7010-6_16

Recycled Waste Materials pp 37–49 | Cite as

Effect of Cement Kiln Dust and RBI Grade 81 on Engineering Properties of Plastic Clay

Sudheer Kumar Jala & Pankaj Sharma

Conference paper | First Online: 10 May 2019

476 Accesses | **3** Citations

Part of the Lecture Notes in Civil Engineering book series (LNCE,volume 32)

Abstract

This paper deals with plastic clay (CH) treated with cement kiln dust (CKD) and roadbuilding international Grade 81(RBI 81). Geotechnical properties including consistency limits, compaction characteristics, unconfined compression strength (UCS), California-bearing ratio (CBR) and consolidation properties are investigated before and after treating the soil. The effects of CKD and RBI 81 on geotechnical properties are found to be very significant. The consistency tests result in the various mix proportions of CKD, RBI 81, with clay soils indicates the low plastic (CL) in nature. The maximum dry density significantly improved with these cementations materials. The UCS increases with increase in curing time and achieves maximum strength. The mix of CKD and RBI 81 with clay soils of the compression index reduced considerably. For pavements having high compressible subgrade especially in rural areas, these materials are very useful due to significant improvement in CBR values. They are durable in terms of maintenance of the pavements as well. Scanning electron microscopy (SEM) observations on original clay and treated mix presented. The SEM image shows the formation of impermeable CSH and CAH gel. The mix which was studied can be used for rural and low-cost construction road infrastructures.

Keywords

Cement kiln dust (CKD) | RBI 81 | Plastic clay | CBR | UCS

Cloud Computing for Geospatial Big Data Analytics pp 155–175 | Cite as

Data Analytics of IoT Enabled Smart Energy Meter in Smart Cities

Kiran Ahuja & Arun Khosla

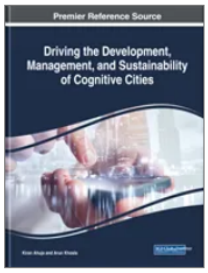
Chapter | First Online: 11 December 2018

792 Accesses | **3** Citations

Part of the Studies in Big Data book series (SBD,volume 49)

Abstract

In current energy production and distribution system, a smart energy meter has been a significant conceptual paradigm. There is a dire requirement to make energy usage more efficient and effective due to limited nonrenewable energy resources and renewable energies (REs) available at high cost. It creates a critical environment for future economic developments and social improvements such as smart cities. In recent years, numbers of smart meters are being installed in residential areas and other sites of smart cities. Smart meters are capable to provide numerous informative recordings of electricity consumption along with accurate processing of billing, Automated Meter Reading (AMR) data processing, detection of energy theft and early warning of blackouts, fast detection of turbulences in energy supply, real time pricing updates, and Demand Response (DR) system for energy saving and efficient usage of energy generated. To take full benefit of smart metering intelligence, numbers of technical issues are required to be addressed. The major concern is to work with very large volume of data. There is a need to develop efficient data fusion and integration techniques. Numerous big data integration and analytics engines are required, which can perform tasks such as outage management, asset management and fault detection especially in case of DR system, customer segmenting, load forecasting and targeting. Data analytic approaches transform



A Framework to Develop a Zero-Carbon Emission Sustainable Cognitive City

Kiran Ahuja (DAV Institute of Engineering and Technology, India) and Arun Khosla (Dr. B. R. Amedkar National Institute of Technology, India)

Source Title: Driving the Development, Management, and Sustainability of Cognitive Cities
 | Pages: 26
DOI: 10.4018/978-1-5225-8085-0.ch001

Abstract

To develop a sustainable zero-carbon cognitive city, a setup is required that will lessen outflows of ozone-depleting substances to zero and all practices that discharge ozone-harming substances. This progress incorporates de-carbonizing power and zero-emanation transport for environmental change. Zero-carbon urban areas keep up ideal living conditions while wiping out natural effect. Rather than utilizing set up urban communities, numerous engineers are beginning sans preparation with a specific end goal to make a zero-carbon city. While keeping this in view, the authors propose a framework for zero-carbon emission sustainable cognitive cities. They ensure that each part of a city adds to its being without carbon. They integrate large and small-scale energy initiatives and solutions along with citywide improvements in energy efficiency, low carbon transportation, and distributed energy resources. The cities will become clusters of smart energy communities, which can exploit the benefits of new energy systems.

Chapter Preview

Top

1. Introduction

Urban zones are main source of more than 70% of worldwide energy utilization and CO2 outflows, for the most part from structures. By 2030, a stunning 82 billion square meters (900 billion square feet), a territory generally equivalent to 60% of the aggregate building load of the world, will be fabricated and modified in urban territories around the world. This projection gives an uncommon chance to decrease non-renewable energy source CO2 discharges by setting the whole worldwide Building Sector on a way to crest emanations rapidly, and totally eliminate CO2 outflows by around 2050 (Nunes, Gouveia, Rodrigues & Simao, 2017).

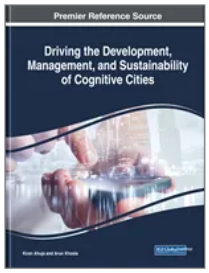
The assessment of pollution generated by an organization's actions makes possible to think about changes in the policies to significantly condense the inclusive carbon emissions effects. A carbon footprint can be estimated by embraced a Greenhouse Gas (GHG) discharges assessment. When the span of a carbon footprint is known, a methodology can be contrived to decrease it, e.g., by innovative advancements, better process and item administration, transformed Green Public or Private Procurement (GPP), carbon catch, utilization systems, and others. The main factors form carbon footprint calculation are shown in Figure 1.

Figure 1. Represents various fields of urban areas involve in carbon footprint calculation
978-1-5225-8085-0.ch001.f01
(Cloud Energy, 2017)

To make a zero-carbon city, a setup is required which diminish emanations of ozone depleting substances to zero and stop all the practices that yield ozone depleting. This required change will contact each part of city administrations and framework including energy age and dispersion, warming and cooling frameworks, building energy productivity, transportation, water and waste administration, and the proficiency of city administrations, for example, road lighting. In the meantime, city activities are being changed by advanced innovations, for example, the Internet of Things (IoT), keen structures, man-made brainpower, mechanical technology, and computerized vehicles.

Mobility portrays the present change in the energy area as the rise of the energy cloud. The energy cloud situation depicts an extreme change of energy advertises as the restricted power lattice offers route to a more unique system of partners, advances, and foundation. It imagines a world in which the power supply is cleaner and more circulated, where computerized change grasps man-made reasoning, the IoT, and blockchain-empowered systems, and where broad jolt of the transportation part implies that power free market activity turn out to be progressively versatile.

This change of the energy part likewise gives the bedrock to the production of the low carbon urban communities without bounds. A standout amongst the most essential improvements for urban communities hoping to change their energy profile is the interlinking of the energy division with structures and



Role of Electronics Devices for E-Health in Smart Cities

Davinder Singh Rathee (Adama Science and Technology University, Ethiopia), Kiran Ahuja (DAV Institute of Engineering and Technology, India) and Tadesse Hailu (Adama Science and Technology University, Ethiopia)

Source Title: Driving the Development, Management, and Sustainability of Cognitive Cities
 | Pages: 22

DOI: 10.4018/978-1-5225-8085-0.ch009

Abstract

As the world's population ages, those suffering from diseases will increase. Researchers in electronics, computer, networking, and medical fields need to work more seriously to make the broad vision of smart healthcare/e-health system. To achieve the objectives of e-healthcare in smart cities, there is a need to create new system that allows the acquisition of health information smartly, automatically, and transparently in order to take efficient decisions provided by the supporting system. Such systems may be designed technically by embedded together communication, smart signals, internet of things, network of sensors.

Chapter Preview

Top

Introduction

In present scenario developments of smart cities are in early stages (Maldague et al, 2001) mainly in terms of traffic management and pollution control (Modest et al, 2013; Vollmer et al, 2011), water management system (Zissis et al, 1978), public Wi-Fi, historical heritage perseveration (Gaussorgues et al, 1994). Also, IoT entering into every aspect of life i.e. health care, industrial control, security, building health and in emergency services (Holler et al, 2014; Kortuem et al, 2010; Romer et al, 2010; Guinard et al, 2010). Due to the impact of ICT (Information and Communications Technologies), smart cities can be imagined. Where most of the services are based on monitoring of different variables via sensors in order to extract and analyze useful information ("Orchestrating infrastructure", n.d.) for applications like monitoring of pollutions, traffic control, water supply, public Wi-Fi, library database, power management ("Smart cities", n.d; Nasirudin et al, 2011; Leccese et al, 2014). In this chapter, our main concentration is on new health care system which may not only promise for attractive applications for health monitoring like elderly care, the fitness of individuals, remote health monitoring i.e. B.P sugar etc. seamlessly and also suggest treatment and medication at the user end. To build such system undoubtedly researcher in the field of electronics, ICT and medical field need to work out more seriously in order to make the broad vision of smart e-health system. So, there is a need of diagnostic and imaging devices, sensors having the capability to connect with the cloud for providing health care services at reduced cost to increase the quality of life (Vasanth et al, n.d.). Additionally, here main concentration is on health monitoring for human, animals, and machines in smart cities using Infrared thermography (IRT) ("ISTAG", 2013). The basic principle to collect the information is capturing of radiations emitting from the object under investigation (Meola et al, 2012). IRT has many applications in the field of medicine, maintenance and process monitoring (Gorostiza et al, 2011), electrical as well as mechanical maintenance in order to avoid costly breakdowns (Lahiri et al, 2012). Fault detection is confirmed due to abnormal patterns of temperature measurement especially in electrical equipment (Purohit et al, 2008). Also, excessive fraction may be noticeable in case of mechanical equipment.

Random Self Similar Notation Coding (RSN coding)

Robin Chadha, Raghav Chib, Rajat Andotra

It is a completely new technique of protecting the data by encrypting it with a single pulse. This encryption decryption method can encrypt all the letters of English alphabets using only a single note/pulse. This technique is also able to encrypt numerals (0-9). Everything that is encrypted by this technique is completely safe from hackers because for decrypting this code, a person will need a special key. The decryption of this code is impossible without the key because every letter and numeral in the code is encrypted as a single sinusoidal pulse.

Wireless Patient Monitoring System With GSM

Dr. Neeru Malhotra
Assoc. Prof and HOD, ECE, DAVIET JALANDHAR
Mrs. Jaspreet Kaur,
Research Scholar, M.Tech. (ECE) DAVIET Jalandhar
Mrs. Payal Gupta
Research Scholar, M.Tech. (ECE) DAVIET Jalandhar

Abstract: Health is a major issue of concern these days. Health is a special wealth without which any luxurious amenities may not help to make the life livable. Generally, it is very common in hospitals that Doctors keep a regular check on their patients but in case of emergency it takes time to get information to the Doctor. In order to make the monitoring more efficient and accurate many ways are been developed, one from which is a GSM based wireless monitoring system. This device monitors the blood pressure, temperature, pulse and heart rate of the patient with the help of the sensors that are connected to the Arduino and regularly displays on the LCD. A GSM device is also connected to the Arduino. The regularly monitored information is messaged to the Doctor periodically. But in case of any fluctuation in any of the parameter, a special message with urgent notification is sent to the Doctor so that a instant action can be taken.

Internet of Things - A Review

Siddhant Jasrotia[1], Maninder Singh[2]
mrsiddhant1999@gmail.com, maninder901820962@gmail.com

Abstract: Internet of Things (IoT) is a term used to describe an environment where billions of objects, constrained in terms of resources ("things"), are connected to the Internet, and interacting autonomously. With so many objects connected in IoT solutions, the environment in which they are placed becomes smarter. A Software plays a key role since it is responsible for most of the intelligence in IoT, integrating data from devices, allowing them to communicate, and make decisions based on collected data. This is something that takes the things or objects to a smart level. This review elaborates on a systematic review of the related literature, exploring the differences between the current Internet and IoT-based systems, presenting a deep discussion of the challenges and future perspectives on IoT.

Ubiquitous Communication Provisioning in Smart Energy Meter System in Smart Cities

Kiran Ahuja
Research scholar, Department of Electronics and Communication Engineering, National Institute of Technology, Jalandhar, Punjab, India
ankahuja2003@gmail.com

Arun Khosla
Associate Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Jalandhar, Punjab, India
khoslaak@nitj.ac.in

Abstract— Energy meter is the contiguous interface to end consumers as part of smart grid in smart cities, where energy is consumed. The primary goal is to transmit energy utilization data reading to cloud for ubiquitous computing with reliability for both consumer and utility. Considering the immature stage of employing smart energy meters for this purpose, an idea of using retrofitting kit will resolve the issue up to some extent. Retrofitting kit can smartly utilize existing conventional energy meters. In this paper, we propose retrofitting smart energy meter architecture with the provisioning of ubiquitous communication by employing multi-interface (GSM/GPRS and WiFi) communication network. The network selection criterion is proposed for optimal usage of communication networks. The implementation of proposed criterion resulted in a reliable and robust smart energy system. The comparison of proposed criterion with the existing designs is performed on the basis of cost, reliability, robustness and ubiquitous communication provisioning feature.

Keywords- Smart energy meter, GSM, WiFi, Ubiquitous communication

I. INTRODUCTION

Electricity has turned out to be a key in regular day to day existence. It is hard to envision a world and human existence without electricity in current scenario. In any case, the imperativeness of electricity has implied that individuals devour immense measures of energy obliviously and heedlessly. It is viewed as fundamental to comprehend and connect with consumers to expect their new part as actively participation in the energy framework effectively. The consumers' engagement additionally relies upon the attributes of the Information and Communication Technologies (ICT), whose expansion is driven by consumers' needs, interests and advantages. ICT will assume a crucial part in smart energy system. The smart energy system objectives will not be accomplished without developing a proper ICT system [1]. The smallest unit of energy system is an electricity meter, which measures the amount of electric energy consumed by a residence, business, or an electrically powered device. Whereas, a smart energy meter is electric device having conventional energy meter chip for electric energy consumed measurement along with wireless communication chip for data transmission (such as GSM Modem, WiFi etc.) and peripheral devices for security, data display, controlling purpose etc. The integration of retrofitting kit with conventional energy meter makes it smart energy meter as shown in Fig. 1. The retrofitting kit mainly consists of data acquisition & communication modules for acquiring data and transmission of data. Smart metering will fully participate to make existing energy system smart. The communication infrastructure ought to be uncomplicated, dynamic, secure and adaptable, while keeping in mind the end goal to permit monitoring, management, control and dispatching activities from distribution to consumers and vice-versa in smart energy system [2]. Smart meters precisely measure- both electricity utilization, generation and convey this information to the energy provider/utilities. These meters can impart the deliberate information and dominatingly utilized by electricity providers as a commitment for more exact and computerized billing without human interventions. Smart meter additionally permits its combination in home electricity management frameworks through communication protocols, where the provided data is identified as energy flow and cost signals [3]. For such facilities, a ubiquitous communication system is required. There are basically minimum two communication networks required for continuous information flow in a smart energy system for ubiquitous computing, proper billing, feedback, instant anomaly detection indication etc. It is considered that data flow can be accomplished via power line or wireless communications like ZigBee, 6LowPAN, Z-wave, GSM, WiFi or internet [4].

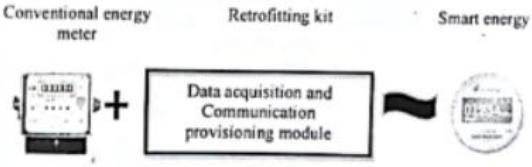


Fig 1: Conventional meter conversion into smart meter by using retrofitting kit.

In this paper, emphasis is given to the smart technology which promotes the multi-interface smart energy meters prepared by adding retrofitting kit to conventional energy meter. Here, LDR (light dependent resistor) is employed for data acquisition from conventional digital energy meter and GSM & WiFi modules are deployed for ubiquitous communication provisioning. The proposed smart electricity meter architecture is also featured with anomaly detection, automatic cut-off/on connection, LCD display and data logger for instant storage. In Section 2, already designed

Document details - Blocking Artifacts Removal of DCT based Highly Compressed Images

2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies, ICICICT 2019

July 2019, Article number 8993183, Pages 1172-1176

2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies, ICICICT 2019; Kannur, Kerala; India; 5 July 2019 through 6 July 2019; Category numberCFP19J50-ART; Code 157717

Blocking Artifacts Removal of DCT based Highly Compressed Images(Conference Paper)

Singh, A., Singh, J.

[a]I.K.G. P.T.U., Punjab, 144603, India
[b]School of Electronics and Electrical Engineering, Lovely Professional University, Phagwara, Punjab, 144411, India
[c]DAVIET, Department of Electronics and Communication Engineering, Jalandhar, Punjab, 144008, India

Abstract

In this paper, an adaptive method of removing the blocking artifacts from JPG standard based highly compressed images have been presented. In the case of JPG based highly compressed images, there is always the appearance of some boundary like artifacts called Blocking artifacts. It is always necessary to remove these type of artifacts. Therefore, in order to remove all these artifacts, a post-de-blocking method is essential. In the proposed work, to remove these blocking artifacts an adaptive method which is based on local content has been used. The simulation results of the considered method have been compared with other methods based on MSSIM, PSNR, MSE, where the proposed method has performed better than other methods. © 2019 IEEE.

SciVal Topic Prominence

Topic: Lossy Compression | Image Coding | Rate-Distortion Optimization

Prominence percentile: 87.504

Author keywords

Blocking artifacts | Compression | JPEG

Indexed keywords

SBN: 978-81-937096-7-2

Environmental Ethics
Need of Human Concern

Editor

Dr. Poonam Vij

Contents

Environment Ethics and Education: The Need of the Hour for Well Being

Ritu Sehgal
Assistant Professor
DAV Institute of Engg & Technology
Jalandhar City, Punjab

Introduction

A beautiful environment is one with uncontaminated air, healthy soil and unadulterated water suitable for human survival and devoid of unfavorable influences that provide physical and mental security while giving satisfaction and happiness in addition to a morally sound life-style. The best way to promote awareness for environmental issues and promote environmentally responsible behaviors is through increased admittance to environmental education. Environmental education creates an overall perspective, which acknowledges the fact that natural environment and man-made environment are independent. It should consider the environment in its totality and it should be a continuous lifelong process beginning at preschool level and continuing through all stages. People can be made responsive towards environment through apposite education. Moreover there is a need to develop a more extensive and effective environmental education strategy to better prepare the public mainly

ਪੀ ਸੀ ਐਮ ਐਸ ਡੀ. ਕਾਲਜ ਫਾਰ ਵੂਮੈਨ, ਜਲੰਧਰ

ਸਾਹਿਤਕਾਰ ੩

ਗੁਰੂ ਨਾਨਕ ਸਟੱਡੀਜ਼ ਸੈਂਟਰ

(ਯੂ: ਜੀ: ਸੀ: ਦੀ ਇਪੋਚ ਮੇਕਿੰਗ ਸੋਸਲ
ਇੰਕਲਜ਼ਨ ਆਫ ਇੰਡੀਆ ਸਕੀਮ ਅਧੀਨ ਸਥਾਪਤ)

Guru Nanak's Philosophy: Relevance in the Era of Globalization

Karnjit Singh MBA,
Member (AIMA) Jalandhar

ABSTRACT

Guru Nanak's philosophy of life, which he has written in 19 Ragas, is not only a source of knowledge, ethos and ethics but also a food for inner soul for spiritual awakening. Those people are the blessed one who treads on the path shown by Guru Nanak. The philosophy of Guru Nanak has a deep impact on his followers because Guru Nanak has enlightened the human beings almost on every aspect of their life and environment.

INTRODUCTION

Guru Nanak Dev Ji was born in 1469 and he was the founder of Sikhism. The period of 16th century of Mughals was a period of theocracy and he raised his voice against this theocratic system.

He was quite vocal against the social evils, religious rituals and practices prevalent at that time. He also spoke against caste system and idolatry. He put the special emphasis on the plight of the women and advised to give respect to women. Guru Nanak Dev Ji stood in favor of women and taught through his bani "So kiu manda akhiai jit janmah rajan"[1]

Even in this 21st Century, Guru Nanak's bani or philosophy is as much relevant as it was in 16th century. The "Jap ji Sahib" Bani written by Guru Nanak is the nutshell of Guru Granth Sahib, a holy book of Sikhs. Jap ji sahib bani teaches us about the realm of righteousness, realm of knowledge, realm of effort, realm of grace and realm of truth. There are 974 spiritual hymns of Guru Nanak Dev Ji which are written in various banis as Japji sahib, Asa di Var, Bara Mah, Sidh Gosht, and Dakhni Onkar etc. which are included in Sri Guru Granth Sahib Ji. In this era of Globalization, the followers of Guru Nanak are not only trying to live their life on the path shown by him but are also spreading his teachings through the various modes of communication. The holy place of worship for Sikhs is Gurdwara where they read and sing the Gurbani or hymns daily and this has spread the philosophy of Guru Nanak at global level as the Sikhs

Incorporation of Renewable Distributed Micro-Generation Technologies in Power Sector Using Microgrids

International Journal of Computational Intelligence & IoT, Vol. 1, No. 2, 2018

9 Pages • Posted: 20 Mar 2019

Shaheer Zaffar Tak
Kurukshetra University - Department of Electrical Engineering

Vijay Kumar Garg
Kurukshetra University - Department of Electrical Engineering

Sudhir Sharma
Dayanand Anglo-Vedic (DAV) Institute of Engineering & Technology (DAVIET) - Department of Electrical Engineering

Date Written: 2018

Abstract

Technological advancements in power electronic systems and declining energy storage costs have led to a shift from conventional to renewable energy in the power sector. Increased environmental concern and fossil fuel shortage spurred the electric industries to usher in an era of distributed generation (DG) where multiple small renewable power units spread over a geographical area are coordinated to serve energy needs. Instead of a large power plant transmitting electricity over long distances, we now prefer a number of small synchronized photovoltaic and wind systems supplying power at the distribution level close to load centres, i.e., consumer side of the network. There are various technical challenges like intermittency, power management, demand uncertainty, etc., that must be tackled for effectively harnessing the potential benefits of DG units and ensuring the reliable operation of the system. This paper discusses the different aspects of DG and Microgrids; their role in integrating renewable energy resources in the market and various challenges.

Suggested Citation:

Zaffar Tak, Shaheer and Kumar Garg, Vijay and Sharma, Sudhir, Incorporation of Renewable Distributed Micro-Generation Technologies in Power Sector Using Microgrids (2018). International Journal of Computational Intelligence & IoT, Vol. 1, No. 2, 2018, Available at SSRN: https://ssrn.com/abstract=3354718

A Cost Effective Memetic Optimal Approach for Solution of Economic Load Dispatch Problem in Realistic Power System

Shivani Sehgal(✉), Aman Ganesh, and Vikram Kumar Kamboj

Lovely Professional University, Phagwara, Punjab, India
{aman.23332,vikram.23687}@lpu.co.in

Abstract. Electric power system problems are amongst the most complex and challenging problems of electric industry market. The main aim of economic load dispatch in power system operation control and planning is to satisfy the energy demand at the least cost while fulfilling all the equality and inequality constraints. This paper presents the mathematical formulation of optimal load dispatch problem by considering the sources of energy generation from conventional power plants and all the important constraints of the realistic power system. In the proposed research the memetic optimizer is developed by hybridizing slime mould algorithm with pattern search algorithm. The proposed hSMA-PS has been tested to obtain the solution of economic load dispatch problem and experimentally it has been observed that the proposed memetic optimizer is providing cost effective solution to complex economic load dispatch problem of electric power system.

Keywords: Economic load dispatch · Optimization · Transmission losses

1 Introduction

Nowadays, the electric power industry is considered to be the most challenging and complex due to the increasing demand of electric energy and lack of availability of energy resources thus necessitates the load dispatch of power generated at the most economic rates. With the development of electrification in transport industry the growth in energy demand is also increased, thus forces the use of renewable energy sources along with the conventional energy sources. In near future, use of electric vehicles is encouraged and so the energy demand. To use the generated energy effectively there should be proper use of energy during charging and discharging process and the energy available from the standalone vehicles can be used as BESS - battery energy storage system for ancillary services. The main purpose of the optimal/economic load dispatch (ELD) problem of an electric power generating system is to attain the system load requirement at the most reduced (minimum) fuel operating cost by scheduling the committed generating units, while satisfying the system constraints i.e. equality and inequality constraints [1, 2]. Electrification of vehicles also helps to eradicate the greenhouse gas emissions and air pollutants with decreased dependency on fossil fuels. Electric vehicles (EVs) are popularized in motor vehicle market universally and will prove to be a promising

P. K. Singh et al. (Eds.): FTNCT 2020, CCIS 1396, pp. 45–56, 2021.
https://doi.org/10.1007/978-981-16-1483-5_5

Modelling for Optimal Load Dispatch of Integrated Renewable Energy Source/BESS /Electric Vehicle Charging Station

Publisher: IEEE Cite This PDF

Shivani Sehgal ; Aman Ganesh ; Vikram Kumar Kamboj **All Authors**

Abstract:
To enhance the utilization of renewable energy resources, to fulfill the increased demand of energy and to reduce global warming and degradation of ecosystem, the economic load dispatch of an integrated system considering renewable energy source (RES), electric vehicle load/ charging station (EVL) and battery energy storage system (BESS) has been planned across the world. The main aim of economic load dispatch in power system operation is to fulfill the energy load demand at the most economic cost while achieving all the equality and inequality constraints. This paper presents the mathematical formulation of optimal load dispatch problem by considering the sources of energy generation from conventional power plants and renewable energy sources with electric vehicles (plug-in, PEVs and battery, BEVs). The power from the standby electric vehicles can be used as a reserve for ancillary services that can be utilized as spinning reserve.

Published in: 2020 International Conference on Decision Aid Sciences and Application (DASA)

Date of Conference: 08-09 November 2020

INSPEC Accession Number: 20364305

Date Added to IEEE *Xplore*: 15 January 2021

DOI: 10.1109/DASA51403.2020.9317055

ISBN Information:

Publisher: IEEE

Conference Location: Sakheer, Bahrain

I. Introduction

In recent times, with the development of electrification in transport industry the growth in energy demand is also increasing, thus forces the usage of renewable sources of energy combined with the conventional sources. The electric power industry is considered to be the most challenging and complex due to the increasing demand of electric energy and lack of availability of energy resources thus necessitates the economic/optimal load dispatch of power generation. To use the generated energy effectively there should be proper use of energy during charging and discharging process and the energy available from the standalone vehicles can be used as battery energy storage system (BESS) for ancillary services. The integrated system (RES-EVL-BESS) is accessible in limited land resources and balances the total energy produced and consumed with energy storage and optimum load dispatch. The main aim of economic/optimal load dispatch problem (ELDP) associated with electric power production and utilization system is to attain the system load demand at minimum operational cost by scheduling the committed generating units, though satisfying the systems constraints i.e. equality and inequality constraints[1] [2]. Electrification of vehicles also helps to eradicate the greenhouse gas emissions and air pollutants with decreased dependency on fossil fuels. Electric vehicles (EVs) are popularized in motor vehicle market universally and will prove to be a promising approach to reduce the pollution in a short time, but also cause a new challenge to electric energy industry in regard to power system planning with operation and control. To properly access the use of EVs, electricity charging facilities are being provide to plugged the vehicle into the power system and directly charge their batteries. An

Random Forest-Based Sarcastic Tweet Classification Using Multiple Feature Collection

Rajeev Kumar and Jasandeep Kaur

Abstract Sarcasm is primary reason behind the faulty classification of the tweets. The tweets of sarcastic nature appear in the different compositions, but mainly deflect the meaning different than their actual composition. This confuses the classification models and produces false results. In the paper, the primary focus remains upon the classification of sarcastic tweets, which has been accomplished using the textual structure. This involves the expressions of speech, part of speech features, punctuations, term sentiment, affection, etc. All of the features are extracted individually from the target tweet and combined altogether to create the cumulative feature for the target tweet. The proposed model has been observed with accuracy slightly higher than 84%, which depicts the clear improvement in comparison with existing models. The random forest-based classification model has outperformed all other candidates deployed under the experiment. The random forest classifier is observed with accuracy of 84.7, which outperforms the SVM (78.6%), KNN (73.1%), and Maximum entropy (80.5%).

Keywords Text analytics · Supervised text classification · Sarcasm detection · Support vector machine · Punctuation features · Affection analysis

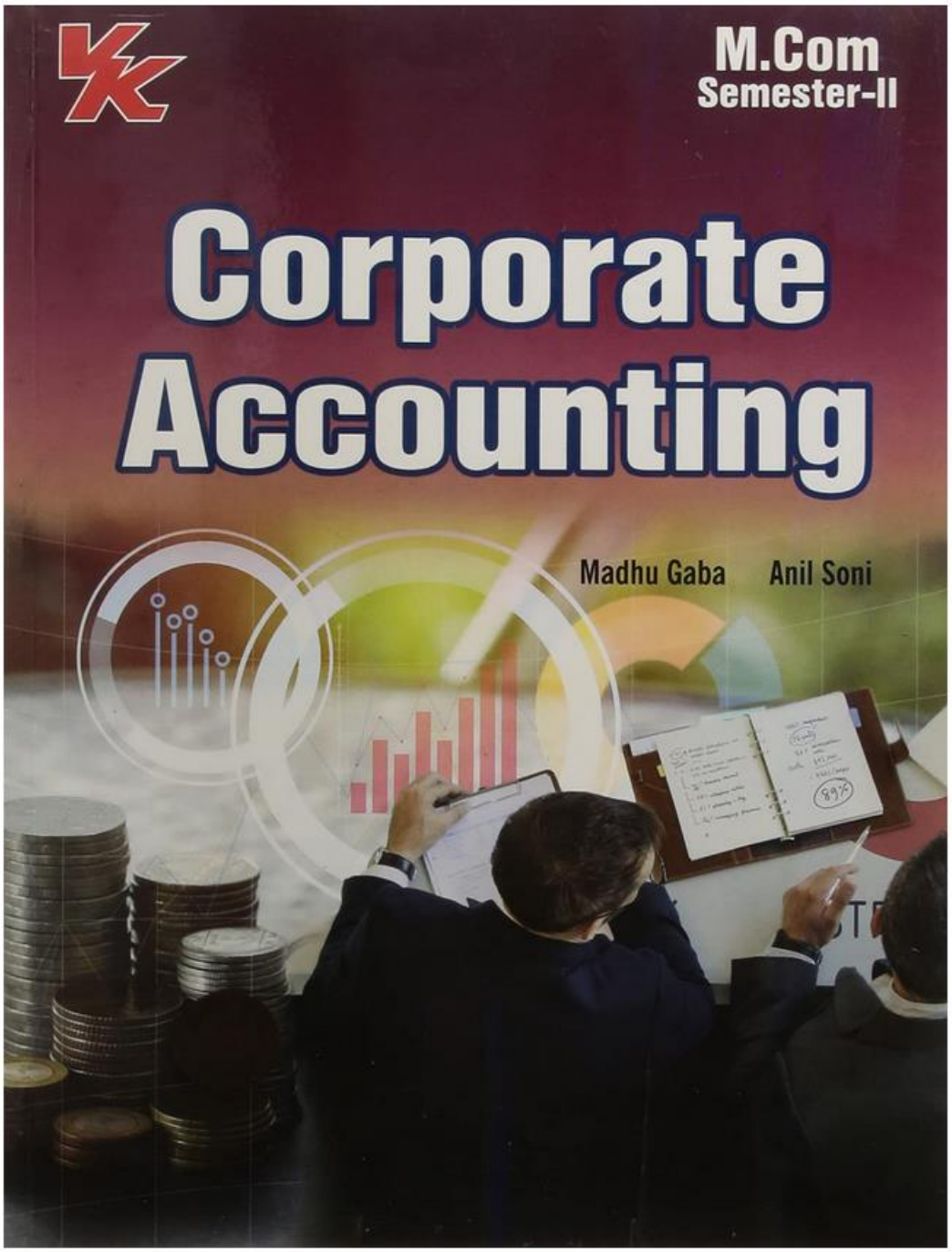
1 Introduction

The field of study which focuses on the interactions of human language and computers is natural language processing. NLP mainly focuses on the intersection of artificial intelligence, computer science, and computational linguistics. To examine, understand, and conclude importance and definition in a wise manner from human language, NLP uses computers. By using NLP, knowledge can be structured and

R. Kumar · J. Kaur (✉)
DAV Institute of Engineering and Technology, Jalandhar, Punjab, India
e-mail: Kaurjasandeep@gmail.com

R. Kumar
e-mail: Rajeev.daviet@gmail.com

S. Tanwar et al. (eds.), *Multimedia Big Data Computing for IoT Applications*, Intelligent Systems Reference Library 163,
https://doi.org/10.1007/978-981-13-8759-3_5


M.Com
Semester-II
Corporate
Accounting
Madhu Gaba
Anil Soni

ISBN : 978-81-941349-7-8

Digitalization in Commerce & Its Impact on Economy

Publisher
Social Research Foundation
Kanpur

Editor
Dr. Rajeev Misra
Dr. Madhulika Rai

A Study of Growth and Usage of Smart Phones

Ritu Sehgal
Assistant Professor,
Dept of Business Administration
DAV Institute of Engg and Technology,
Jalandhar, Punjab, India

Introduction

A powerful force drives the world towards a converging commonality and that force is technology (Levitt, 1992). From the beginning of the human era, technology has been one of the most essential and most important factors for the development of mankind (Coombs et al., 1987). Research and development (R & D) in the form of technological development, in present world, has a great impact on almost all the sectors. Emergence of information technology (IT) as a result of technological development has attracted a considerable attention in various sectors over the recent years, be it any type of company such as production sector, medical sector, automobile sector, insurance sector, education sector, banking sector and so on. The fast growing technology has developed electronic device such as smart phone that function do not limited only for messaging but this device allows long distance communication. (Rambitan, 2015). The smart phone era began in 1993 with the introduction of Simon smart phone from IBM (Sarwar & Soomro 2013).

Weser Books

Financial Behaviour of Women Investor

EDITOR

Dr. Nidhi Aggarwal

A STUDY OF RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND FINANCIAL LITERACY

Dr. Suman Tandon

Associate Professor, Department of Management, DAVIET, Jalandhar

Sunayana Arora

Student, MBA, Department of Management, DAVIET, Jalandhar

Abstract

Financial literacy is the ability to know, monitor, and efficiently use financial resources to enhance the welfare and economic condition of an individual, his family and his business. This research aims to analyse and measure the financial literacy and check whether there is association between demographic factors and financial literacy Respondents were selected conveniently .Primary data from respondents were collected by a structured questionnaire. Total score for respondent is calculated and ANOVA has been applied to know the association of financial literacy with demographic factors and on the basis of that hypothesis are developed. Out of 200 respondents, the higher level of financial literacy was only 47% and 53% of respondents come under the category of lower level of financial literacy. Out of demographic factors, each factor has an impact on financial literacy like gender, age, occupation, income and education except family size. It is recommended for policy makers, regulatory authorities, and financial education providers to promote financial literacy among the people of the society. Financial literacy helps people to save and invest in the right plans .hence it's crucial that people understand finance is not easy. Financial literacy needs to be promoted by government and companies for betterment of the economy as it is found that that financial literacy in India is very low.

Keywords: Financial literacy, demographic factors, economic development.

Introduction

Background of Financial Literacy

The financial system of a country plays a key role in economic development. Since independence Indian leaders are aiming to remove poverty and turn India into vibrant, self –reliant global economy and embedded financial literacy needs in every citizen's life. India is traditionally a country of enthusiastic savers (K N Narendra-2015). The year 1991 has crucial part within the Indian economy. Numerous economic measures were presented to attain objective of new policies of government. This comes about to extension of money related markets through liberalization, privatization and globalization which have given a way to overabundance of financial products in banking, investment and loan products. Low level of financial literacy hinder individuals from creating valid choices related to financial decisions. In order to maximize wealth and ultimately for development of individual must capitalize his/her savings in right investment alternatives.

Meaning of financial literacy?

Financial literacy was defined by Noctor, Stoney and Stradling (1992) as 'the ability to make informed judgements and to take effective decisions regarding the use and management of money'. Being financially literate would mean that an individual would benefit from a palette of abilities and attitudes such as a comprehension of money management concept, knowledge of financial institutions and attitudes which enable effective and responsible management of financial affairs. These benefits was previously identified by Schagen and Lines (1996, p. 91).

Financial literacy goes beyond the provision of financial information and advice. It is the ability to know, monitor, and efficiently use financial sources to enhance the welfare and economic refuge of an individual, his family, and his business. The OECD defines financial literacy as –"A combination of awareness, acquaintance, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being."Four pillars of financial literacy are shown in figure given below;

Online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" (ICCIASH-20)

St. MARTIN'S Engineering College

UGC AUTONOMOUS

A NON MINORITY COLLEGE, AFFILIATED TO JNTUH, APPROVED BY AICTE,
ACCREDITED BY NBA & NAAC A+, ISO 9001:2008 CERTIFIED
SIRO RECOGNITION BY MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA.
Dhulapally, Near Kompally, Secunderabad - 500 100, T.S. www.smec.ac.in

ACCREDITED WITH GRADE A+ NAAC

Department of **Science & Humanities** presents

Online International Conference on

"Continuity, Consistency and Innovation in Applied Sciences and Humanities"

on 13th & 14th August 2020

(ICCIASH-2020) **PROCEEDINGS**

ISBN:
978-93-88096-42-3

Editor In chief
Dr.P.Santosh Kumar Patra

nirf Ranked Institute

: 8096945566, 8008333876, 8008333886 : www.smec.ac.in
: Dhulapally, Near Kompally, Secunderabad - 500 100, T.S.

ESTABLISHED 2002

Department of Science and Humanities, St.Martin's Engineering College, Secunderabad (www.smec.ac.in) ISBN No 978-93-88096-42-3

Paper ID: ICCIASH-2020/650

A Study of Consumer's Attitude towards Mobile Marketing

Suman Tandon
DAVIET Jalandhar
Deepti Kakkar
NIT Jalandhar
Parveen Kakkar
DAVIET Jalandhar
Randeep Kaur
DAVIET Jalandhar

Abstract:

The tremendous growth of smart phones has opened door of opportunities for marketers to market their product and services easily through mobile phones. Consumers are attracted towards the mobile marketing as enhancement of usage of smart phones. They are more conscious about knowing all the trends and technology and accepting them in their daily lives. This is due to the reason that they get to know about each product and services on their phones via SMSs, emails, various apps, etc. This paper shows a study employs to analyse the relationship between demographic factors on the mobile marketing. For the study, authors collected the data using a structured questionnaire. The study involved 102 respondents of various age group, gender and different qualification in order to have a unbiased evaluation. The study aims to evaluate the mobile marketing impact based on the determined factors analysis. During this study, it is observed consumers have positive attitude towards mobile marketing but companies should focus on improving strategies.

Key words: *Mobile Marketing, Smart Phones, Technology.*

*Corresponding Author
E-mail Address: standon7708@gmail.com

Review and Comparative analysis of various Image Interpolation Techniques

Publisher: IEEE Cite This PDF

Amanjot Singh ; Jagroop Singh All Authors

Abstract:
In this paper, review and analysis of major image interpolation techniques have been presented. Image interpolation is very useful for fast super resolution (SR) of images. In super resolution a low resolution image is converted to a high resolution image. There are a number of methods to implement the Super resolution, However, the fastest method of SR implementation is always interpolation. In the presented work comparison of the major methods in the field of interpolation has been given. Moreover, simulations of different image interpolation techniques have been implemented for the comparison. The simulation results of the different methods have been compared based on the PSNR, MSE and MSSIM quality matrices.

Published in: 2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)

Date of Conference: 05-06 July 2019

INSPEC Accession Number: 19358498

Date Added to IEEE *Xplore*: 13 February 2020

DOI: 10.1109/ICICICT46008.2019.8993258

ISBN Information:

Publisher: IEEE

Conference Location: Kannur, India

I. Introduction

In today's time as the multimedia data is increasing the problem of their storage is increasing. Moreover, compression is already part of every type of communication system. The restoration of that image from compressed low resolution to high resolution image always requires computation. Sign in to Continue Reading nds upon the computation level. Interpolation based methods are always more p n real time. These methods consume less time as compared to other learning based methods. In this work review and simulated comparison of the interpolation based methods has been presented. In the review only interpolation based methods have been included

Soft Computing: Theories and Applications pp 193–203 | Cite as

Comparative Analysis of Post-wavelet Denoising for Interpolated Images Having Various Noises

Amanjot Singh ✉ & Jagroop Singh

Conference paper | First Online: 11 February 2020

Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 1053)

Abstract

In this work, comparative analysis of wavelet-based denoising for interpolated images contaminated with various noises has been presented. In order to upscale the images, interpolation is the fastest and simplest method, but its performance varies with the type of noises present in images. In today's time, most of the images are present in compressed form and may contain various type of noises. The wavelet-based noise removal method combined with interpolation can act as a solution to restore these images. In the presented work, a comparison of the performance of wavelet-based denoising methods along with interpolation for the different type of noises with compression artifacts has been presented. PSNR and SSIM quality matrices have been compared for different type of noises for both highly compressed and non-compressed images. On the basis of this analysis, one proper method of wavelet denoising along with image interpolation can be selected for particular type of noise.

Keywords

Interpolation **Wavelet transform** **Thresholding** **Denoising**

References

1. Jain, A.K.: Fundamentals of digital image processing, Prentice Hall of India (2002)

Google Scholar

Document details - Adaptive Enhancement algorithm using image Decomposition for non-uniform illuminated images

Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020

August 2020, Article number 9214239, Pages 1156-1161

3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020; Francis Xavier Engineering CollegeTirunelveli; India; 20 August 2020 through 22 August 2020; Category numberCFP20P17-ART; Code 163756

Adaptive Enhancement algorithm using image Decomposition for non-uniform illuminated images(Conference Paper)

Rekhi, N.S., Sidhu, J.S.

[a]IKG Punjab Technical University, Kapurthala, Punjab, India
[b]DAV Institute of Engineering Technology, Jalandhar, Punjab, India

Abstract

The objectivity of illumination and reflectance has been the continuous thrust area in image analysis and enhancement. To achieve better quality, the researchers have focused on improving contrast enhancement and brightness preservation of mainly non- uniform images. This paper reviews the computational techniques evolved for improving the visual quality of images. The discussion has been focused on multi-scale decomposition approach to achieve the desired variation in contrast and brightness of the images. The multi-scale approach is termed as a combination of coarse and detail coefficients of the input image. So, it may be said that the detail characteristics are evaluated to study directional variations of the intensity in the images. © 2020 IEEE.

SciVal Topic Prominence

Topic: Histogram Equalization | Image Enhancement | Graphic Methods

Prominence percentile: 94.314

Author keywords

Discrete Wavelet Transform | Illumination | Multiscale Decomposition | Noise estimator | Nonuniform Images

Indexed keywords

Engineering controlled terms: Luminance

Engineering uncontrolled terms: Brightness preservations | Computational technique | Contrast Enhancement | Directional variation | Enhancement algorithms | Image decomposition | Multi-scale approaches | Multi-scale Decomposition

Engineering main heading: Image enhancement

Designing of three regions de-blocking filters in BDCT coded images at low bit rate

Anudeep Gandam ; Jagroop Singh Sidhu All Authors

Abstract:
Compression of images and video frames at a low bit rate significantly degrades the visual quality decoded with JPEG and MPEG standards. This paper focuses on an efficient pre and post-processing technique to address and rectify the blocking artifact. This method differentiates the blocked images or frames into different regions based upon the activity function. It efficiently removes the artifacts while preserving the edge details with the help of different adaptive filters. The proposed technique is implemented on various images and videos and results are compared with multiple existing methods using performance metrics like SSIM and GBIM. The simulation results show significant improvement in subjective quality for different images and video frames. It outperforms existing de-blocking methods.

Published in: 2020 Global Conference on Wireless and Optical Technologies (GCWOT)

Date of Conference: 06-08 October 2020

INSPEC Accession Number: 20569527

Date Added to IEEE *Xplore*: 07 April 2021

DOI: 10.1109/GCWOT49901.2020.9391623

ISBN Information:

Publisher: IEEE

Conference Location: Malaga, Spain

I. Introduction
Block-based Discrete Coding Technique (BDCT) has proved to be the most efficient yet simplest, and fastest technique for image and video compression. Various international standards like JPEG widely adopt JPEG 2000 for still pictures and MPEG for moving images [1]–[4]. Image and vi[illegible] reducing the cost of transmission and storage issues. Furthermore, it helps maintain [illegible] or video) without any significant loss of information. The de-blocking algorithm's main objective is to alleviate such artifacts and improve the visual quality parameters of compressed images and videos [5].

Emerging Technologies for Battling Covid-19 pp 195–221 | Cite as

COVID-19: Creating a Paradigm Shift in Indian Education System

Kiran Ahuja & Indu Bala

Chapter | First Online: 16 February 2021

Part of the Studies in Systems, Decision and Control book series (SSDC,volume 324)

Abstract

With the spread of the coronavirus, an unprecedented number of students around the world are not able to go to schools, colleges and universities to stop the spread of pandemic COVID-19. The epidemic is expected to have enormous economic concerns and it is also having devastating effects on global education. With the rapid spread of the coronavirus, educational institutions around the world are making a radical decision to switch from traditional face-to-face course content deliveries to online content delivery. This is a major paradigm shift that will potentially reshape the future of Indian education system with the accelerated adoption of digital technology. The COVID-19 situation is a blessing in disguise to experiment with new tools and technologies to make education delivery meaningful to the students who cannot go to campuses. It's an opportunity to be more knowledgeable and to be more productive while developing new skill sets and accelerated professional skills through online learning and assessment. In this chapter, we have reviewed the educational challenges and opportunities posed by the unexpected outbreak of COVID-19 pandemic followed by the discussion on the recalibration of the Indian educational system after COVID-19. Various readily available platforms for the adoption of digital/online learning are explored and discussed in detail. In the chapter end, some recommendations are made for the betterment of the Indian education system after COVID-19.

Keywords

Education disruption **COVID-19** **Online learning** **ICT**

Digital learning management

National Conference on Science, Engineering & Management, NCSEM-2K20

Investigation on spatial division multiplexing system with dispersion compensating schemes NRZ modulation

Ashish Malhotra[a,*], GurmanikKaur[a], Rakesh Goyal[b], Monika Rani[c]

[a]Sant Baba Bhag Singh University, Jalandhar, Punjab, India

[b]I K Gujral Punjab Technical University, Jalandhar, Punjab, India

[c]Kanya MahaVidyalaya, Jalandhar, Punjab, India

Corresponding Author email: malhotra.gsp@gmail.com

Abstract: The acceleration of data traffic and machine-to-machine (M2M) connections has catalysed researchers around the globe to look for possible strategies to increase the capacity of optical fiber networks and optimize the available optical spectrum. Spatial division multiplexing (SDM) is a revolutionary technology which increases the aggregate data rate by a factor of the number of modes that can be precisely generated and de-multiplexed. In this manuscript, we have analysed SDM system for optimizing power and dispersion. We have used three schemes to mitigate the effect of dispersion viz. pre, post and symmetrical with different modulation formats. In the first scheme i.e. pre dispersion scheme, the dispersion compensated fiber (DCF) has been inserted to attenuate the effect of dispersion before the transmission of the data to fiber whereas in second post dispersion scheme, it is inserted after the fiber and in third, symmetrical scheme, we inserted DCF before and after the fiber. It is found that Post dispersion scheme with Non return to zero (NRZ) modulation format shows better results in all the schemes.

Keywords: Spatial division multiplexing (SDM); Single Mode Fiber (SMF); Dispersion Scheme; Dispersion Compensated Fiber (DCF); Non return to zero (NRZ).

1. Introduction

SDM is of immense advantage to telecommunications companies as no extra spectrum is required [1]. The use of the spatial structure of the electromagnetic wave is mooted as a potential solution to address the pending capacity crunch. Different mode shapes have been proposed to realize SDM in optical communication systems [2]. SDM network which is realized by using MMF has been paid considerable attention in literature, because MMF have a large potential to increase transmission capacity for long haul fiber link [3]. SDM refers to fibers that allow data transmission in parallel strands of single mode fiber SMF, a combination of multiple cores within a single cladding or multiple modes in a single core[4]. In each case, the aim is typically to both increase the achievable data throughput and also to encourage energy and resource savings, hardware integration, and joint signal-processing[5]. SDM potentially offer the simplest migration path for adoption of SDM fibers as they allow a phased upgrade path from conventional fiber bundles where the fiber, SDM amplifiers, or shared transmitter and receiver hardware may be introduced in stages whilst being compatible with existing SMF systems. SM-MCF and MMF have been shown to support wide band, high spectral efficient (SE) modulation without the need for high-order multiple-input/multiple-output (MIMO) based receivers[6]. Within weakly coupled MCFs, there is a further distinction between homogeneous core MCFs, where near identical core properties are targeted, and heterogeneous core structures where neighbouring cores are designed to have variations in refractive index in order to reduce inter-core coupling. The reduced coupling typically allows higher core densities in a given core diameter[7]. The majority of transmission demonstrations to date have used homogeneous MCF and MMF for higher capacity and the highest throughput-distance product of any

P.T.O 1/2

National Conference on Science, Engineering & Management, NCSEM-2K20

Performance analysis of spatial division multiplexing system for dispersion compensating schemes RZ modulation

Ashish Malhotra[a,*], GurmanikKaur[a], Rakesh Goyal[b], Monika Rani[c]

[a]Sant Baba Bhag Singh University, Jalandhar, Punjab, India

[b]I K Gujral Punjab Technical University, Jalandhar, Punjab, India

[c]KanyaMahaVidyalaya, Jalandhar, Punjab, India

Corresponding Author: email: malhotra.gsp@gmail.com

Abstract: In recent years the deployment of space division multiplexing (SDM) within optical fiber communication (OFC) systems has been suggested as an exciting method for increasing communication bandwidth and spectral efficiency. SDM systems use orthogonal or spatially separable optical modes to multiplex many encoded data channels within a communication system. In this manuscript, we proposed an optical communication model for 1020 Km distance. We engaged Return to zero (RZ) modulation format and EDFA optical amplifiers for this network. The system has also overcome the problem of dispersion, we have installed three schemes i.e. pre, post and symmetrical schemes. In pre dispersion scheme, the dispersion compensated fiber (DCF) has been engaged before the transmission of the data to fiber. In post dispersion scheme, DCF is engaged after the fiber and in symmetrical DCF is engaged before and after the fiber. It is found that Post dispersion scheme with Return to zero (RZ) modulation format shows better results in all these schemes.

Keywords: Spatial division multiplexing (SDM); Single Mode Fiber (SMF); Dispersion Scheme; Dispersion Compensated Fiber (DCF); Return to zero (RZ)

1. Introduction

SDM systems use orthogonal or spatially separable optical modes to multiplex many encoded data channels within a communication system. Each spatial mode can act as an independent information-bearing carrier thus scaling the total transmission capacity by several orders of magnitude. Such systems have been demonstrated in both multi-mode fibre (MMF) and multi-core fibre (MCF). The exploitation of the spatial dimension in SDM is a promising solution for increasing the transmission capacity and substantially improving the spectrum efficiency [1]. One of the most important constituents required for Gigabit Ethernet transmission system is the development of a multimode optical fiber (MMF) optimized for 850, 1310 nm and 1550 wavelengths [2].

A high-precision arbitrary-mode converter [3] can be engaged for mode-division multiplexing (MDM) OFC systems. As the kernel of this converter, a phase-only spatial light modulation based on simulated annealing algorithm is engaged as a spatial spectrum filter[4]. The potential of harnessing the space[5] as an additional degree of freedom for communication applications including free space optics (FSO), optical fiber installation, underwater wireless optical links, on-chip interconnects, data center indoor connections, radio frequency (RF) and acoustic communications has been under implementation now[6]. The focus has been on the orbital angular momentum (OAM) modes and equally identify the challenges related to each of the applications of spatial modes and the particular OAM modes in communication[7]. To enable system and transmission experimentation [8] parallel re circulating loops can be engaged for both multi-dimensional modulation and joint digital processing techniques across three MCF cores[9]. This technique leads to increased transmission reach but highlight the need for further experimental analysis to properly characterize the potential benefits of correlated propagation delays in such fibers. A simple phenomenological model [10] of multimode gas

Soft Computing: Theories and Applications pp 353-361
| Cite as

Function Classification of EEG Signal for Human–Computer Interface

Authors Authors and affiliations

Peter Gill, Navleen S. Rekhi

Conference paper
First Online: 11 February 2020

Part of the Advances in Intelligent Systems and Computing book series (AISC, volume 1053)

Abstract

This paper proposes an adaptive algorithm for function classification of left-hand and right-hand imagery movements obtained from EEG signal. The electroencephalogram (EEG) is the signal acquired from human brain to monitor and identify human actions

Document details - Adaptive Enhancement algorithm using image Decomposition for non-uniform illuminated images

Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020

August 2020, Article number 9214239, Pages 1156-1161

3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020; Francis Xavier Engineering CollegeTirunelveli; India; 20 August 2020 through 22 August 2020; Category numberCFP20P17-ART; Code 163756

Adaptive Enhancement algorithm using image Decomposition for non-uniform illuminated images(Conference Paper)

Rekhi, N.S., Sidhu, J.S.

[a]IKG Punjab Technical University, Kapurthala, Punjab, India
[b]DAV Institute of Engineering Technology, Jalandhar, Punjab, India

Abstract

The objectivity of illumination and reflectance has been the continuous thrust area in image analysis and enhancement. To achieve better quality, the researchers have focused on improving contrast enhancement and brightness preservation of mainly non- uniform images. This paper reviews the computational techniques evolved for improving the visual quality of images. The discussion has been focused on multi-scale decomposition approach to achieve the desired variation in contrast and brightness of the images. The multi-scale approach is termed as a combination of coarse and detail coefficients of the input image. So, it may be said that the detail characteristics are evaluated to study directional variations of the intensity in the images. © 2020 IEEE.

SciVal Topic Prominence

Topic: Histogram Equalization | Image Enhancement | Graphic Methods

Prominence percentile: 95.315

Author keywords

Intelligent Computing and Communication Systems pp 37–44 | Cite as

Recent Developments and Challenges in Intelligent Transportation Systems (ITS)—A Survey

Vishal Sharma ✉, Love Kumar & Sergey Sergeyev

Chapter | First Online: 22 June 2021

Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

Intelligent transportation systems are gaining worldwide attention from academicians, transportation professionals, automotive vehicle industries, and policy-makers. The intelligent transportation system comprises advanced communication technologies, information processing techniques, sensors, and electronics technologies to manage the problems of the conventional transportation systems, for instance, traffic congestion, transportation efficiency, environmental factors, and occurrence of unfortunate accidents on the roads. In this article, recent developments with the existing challenges associated with the intelligent transportation system are highlighted. Further, an overview of the possible future directions is also outlined to develop state-of-the-art intelligent transportation systems.

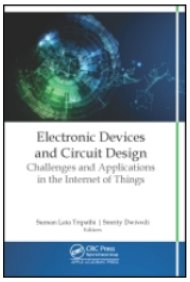
Keywords

Electronic Devices and Circuit Design

Challenges and Applications in the Internet of Things

Editors: Suman Lata Tripathi, PhD
Smrity Dwivedi, PhD

Ordering Info/Buy Book



Published. Available now.
Pub Date: February 2022
Hardback Price: see ordering info
Hard ISBN: 9781771889933
E-Book ISBN: 9781003145776
Pages: 318pp w/index
Binding Type: Hardback
Notes: 7 color and 133 b/w illustrations

This new volume, **Electronic Devices and Circuit Design: Challenges and Applications in the Internet of Things**, offers a broad view of the challeges of electronic devices and circuits for IoT applications in a concise way.. The book presents the basic concepts and fundamentals behind new low power, high-speed efficient devices, circuits, and systems with new technology in addition to CMOS. It aims to help develop an understanding of new materials to improve device performance with smaller dimensions and lower costs. It looks at the new methodologies to enhance system performance and provides key parameters to explore the devices and circuit performance based on smart applications. The volume bridges the gap for researchers working on different areas of smart devices, circuits, and systems with IoT applications.

The fundamental principles of electronic device and circuit design are discussed in a clear and detailed manner along with explanatory diagrams. Various IoT-based smart applications in different fields along with challenges and issues along with prospects of IoT for future applications have also been discussed.

CONTENTS:

Chapter 10
COVID-19: Creating a Paradigm Shift in Indian Education System

Kiran Ahuja and Indu Bala

Abstract With the spread of the coronavirus, an unprecedented number of students around the world are not able to go to schools, colleges and universities to stop the spread of pandemic COVID-19. The epidemic is expected to have enormous economic concerns and it is also having devastating effects on global education. With the rapid spread of the coronavirus, educational institutions around the world are making a radical decision to switch from traditional face-to-face course content deliveries to online content delivery. This is a major paradigm shift that will potentially reshape the future of Indian education system with the accelerated adoption of digital technology. The COVID-19 situation is a blessing in disguise to experiment with new tools and technologies to make education delivery meaningful to the students who cannot go to campuses. It's an opportunity to be more knowledgeable and to be more productive while developing new skill sets and accelerated professional skills through online learning and assessment. In this chapter, we have reviewed the educational challenges and opportunities posed by the unexpected outbreak of COVID-19 pandemic followed by the discussion on the recalibration of the Indian educational system after COVID-19. Various readily available platforms for the adoption of digital/online learning are explored and discussed in detail. In the chapter end, some recommendations are made for the betterment of the Indian education system after COVID-19.

Keywords Education disruption · COVID-19 · Online learning · ICT · Digital learning management

K. Ahuja (✉)
DAV Institute of Engineering and Technology, Jalandhar, Punjab, India
e-mail: askahuja2002@gmail.com

I. Bala
Lovely Professional University, Phagwara, Punjab, India

F. Al-Turjman et al. (eds.), *Emerging Technologies for Battling Covid-19*,
Studies in Systems, Decision and Control 324,
https://doi.org/10.1007/978-3-030-60039-6_10

IFERP®
connecting engineers...developing research

2nd International Conference on Future Communication & Computing Technology (ICFCCT-2021)

27th - 28th October, 2021, Mumbai – Virtual Conference

An Effective Enhancement Algorithm for Contrast Distorted Images

Navleen S Rekhi, Research Scholar & Assistant Professor, Department of ECE, IKG Punjab Technical University & DAV Institute of Engineering & Technology, Jalandhar, Punjab, India

Jasjit Singh, Research Scholar, Department of ECE, IKG Punjab Technical University & DAV Institute of Engineering & Technology, Jalndhar, Punjab, India

Dr. Jagroop S Sidhu, Associate Professor, Department of ECE, DAV Institute of Engineering & Technology, Jalandhar, Punjab, India

Dr. Amit Arora, Assistant Professor, Department of ECE, DAV Institute of Engineering & Technology, Jakandhar, Punjab, India

Abstract

This paper proposed the concept of logarithmic scale for improvement in low contrast images. The images with narrow width of intensity scale either oriented in right, left or midway is termed to be low contrast. The motivation was to develop the automated gamma correction using adaptive logarithmic scale. The gamma is an effective tool to deal with low contrast of the images. Hence, the modified gamma function showed the effectiveness to preserve the overall brightness and yields better response in refining the contrast. The algorithm was evaluated based on CEED 2016 database. The results had demonstrated the effectiveness of algorithm based on Peak SNR, absolute mean brightness error, structure similarity index and global contrast factor. Also the subjective quality of the image had been enhanced in comparison to recent algorithms published.

Keywords

contrast enhancement, logarithmic scale, gamma correction

Chapter

An Artificial Intelligence-based Expert System for the Initial Screening of COVID-19

By Anurag Sharma, Hitesh Marwaha, Vikrant Sharma, Love Kumar

Book Advanced AI Techniques and Applications in Bioinformatics

Edition	1st Edition
First Published	2021
Imprint	CRC Press
Pages	16
eBook ISBN	9781003126164

2021 | OriginalPaper | Chapter

Memetic Optimal Approach for Economic Load Dispatch Problem with Renewable Energy Source in Realistic Power System

Authors: Shivani Sehgal, Aman Ganesh, Vikram Kumar Kamboj

Published in: Applications of Artificial Intelligence and Machine Learning

Publisher: Springer Singapore

Abstract

Electric power industry is shifting from conventional energy sources to combined renewable sources and thus becoming the most challenging and difficult problems of electric power system. This necessitates the generation and dispatch of load at most economical cost. The main objective of economic load dispatch in power system operation, control and planning is to fulfil the energy load demand at the lowest price while fulfilling all the constraints (equality and inequality constraints). This paper presents the mathematical design of optimal load dispatch problem by considering the sources of energy generation from conventional power plants and renewable power plants (solar power plant), considering all the essential constraints of the realistic power system. In the proposed research the memetic optimizer developed by combining Slime Mould Algorithm with pattern search algorithm (SMA-PS) has been tested to find the solution of integrated thermal solar economic load dispatch problem and experimentally it has been observed that the proposed memetic optimizer is providing cost-effective solution to complex economic load dispatch problem of electric power system.

Chapter

Techno-economic Design and Evaluation of a Small Community-Based Microgrid

April 2021

DOI:10.1007/978-981-33-6307-6_80

In book: Proceedings of Integrated Intelligence Enable Networks and Computing, IIENC 2020 (pp.775-784) · Edition: First · Publisher: Springer

Authors:

Vijay Kumar Garg

Sudhir Sharma

DAV Institute of Engineering and Technol...

Soft Computing for Intelligent Systems pp 505–517 | Cite as

Techno-Economic Analysis of a Microgrid for a Small Community

Vijay Kumar Garg & Sudhir Sharma

Conference paper | First Online: 23 June 2021

277 Accesses

Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

In this paper, an optimal design and techno-economical assessments of a microgrid consisting of photovoltaic, wind energy and energy storage system with a utility-grid-connected power system are performed for a small rural community in Ambala District of Haryana, India. First, the electric load for the site was calculated and optimum sizing of various ingredients at microgrid was obtained using Hybrid Optimization Multiple Energy Resources (HOMER) simulations. The simulated results showed that the PV–battery–utility grid system is an optimal solution based on various factors like Net Present Cost (NPC), Levelized Cost of Energy (LCOE), load requirement, available energy resources and their fraction and economics of the overall system.

Keywords

Solar **Wind** **Techno-economic analysis** **Cost of energy** **Net present cost** **Hybrid renewable energy sources**

ISBN:978-93-5457-589-1

Title of the Book
Health, Hygiene, Sanitation and Environment at Pandemic Times

A Study on Operational Efficiencies of HealthCare Services in India during Pandemic 2020

Dr. Megha Munjal[1] (Assistant Professor), Kritika Sharma[2] (Assistant Professor)
meghamunjal@yahoo.com[1], kritikadhir@yahoo.in[2]
IKG Punjab Technical University, Punjab, India

Article Info

Article History
Received : 20 – 02 - 2021
Revised : 12 – 03 - 2021
Accepted : 14 – 05 - 2021

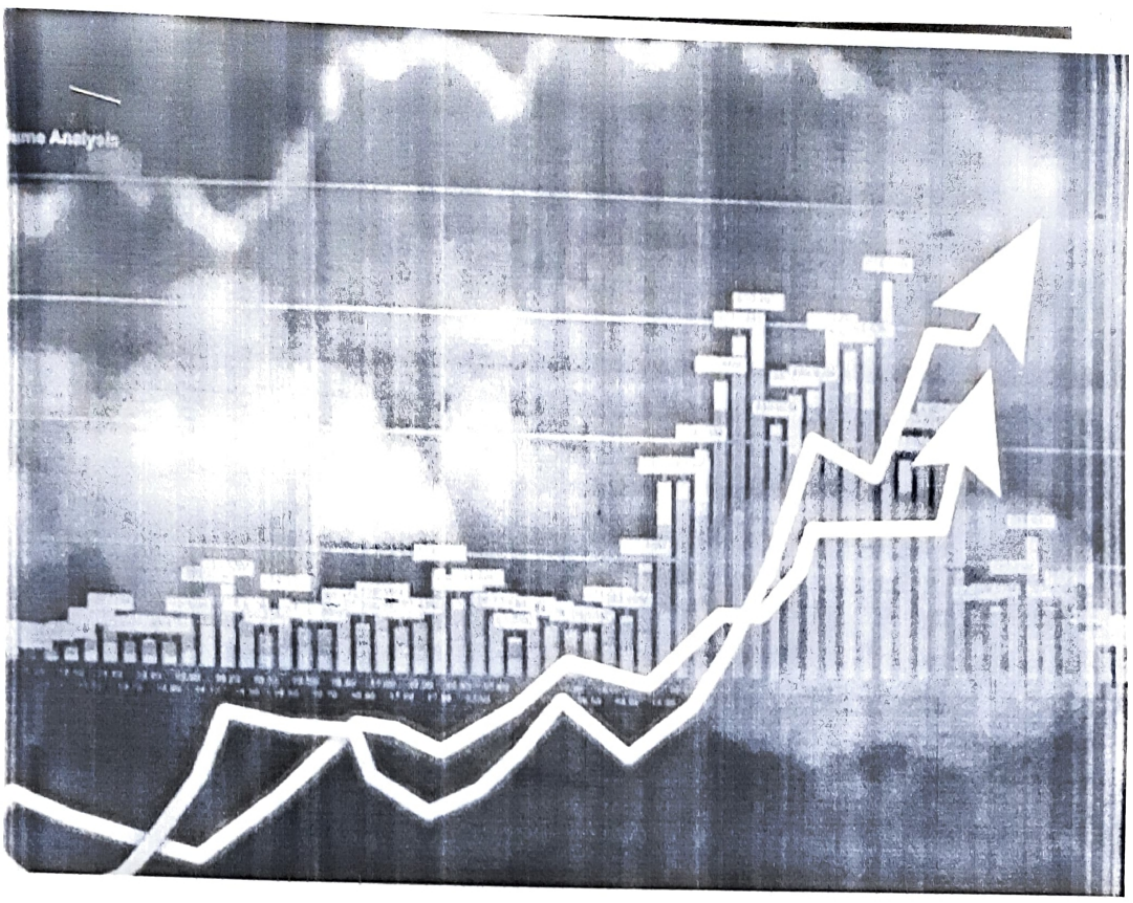
Contact Author
Dr. Megha Munjal
IKG Punjab Technical University,
Punjab, India

Abstract:
Covid19, a global pandemic, has put the health policies of several countries at stake putting the life of myriad people at risk. India is one of the countries that has undergone a plethora of reforms in health policies to block and tackle the spread of novel coronavirus infection endangering the number of lives. The pandemic has posed a massive challenge in front of India as it is a country with inadequate resources, so it is prominent to know about strategies it followed. This study is conducted to know about an array of policies that the government adopted and to know about the success rate of those policies. Along with that, it consists of all those measures that the country would follow as a roadmap considering the future course of action. India is not one The chapter reviews the health policies of India that already existed and how it transformed observing the need of an hour. Moreover, it also estimates the contribution those reforms made at the economic level of the country.

Introduction

India is a country with a large and diverse type of population holding different myths and perceptions towards health care mechanisms. The health care systems which India hold before the Pandemic have shown a drastic shift towards the importance of health facilities and other important parameters like patient's protection, hygiene, the safety of patient's family members, medical resources and transports, etc. (WHO, 2020). Various nations have faced critical attacks on health care like Ebola and other dangerous viruses. It has been the first instance in India to manage such an outbreak of such virus in a nation having a poor and middle population at large. The pandemic outbreak in India and its management is still an important issue. Since the beginning of the outbreak, where health care providers were scared due to lack of sufficiency in health care services India has shown growth and stability in this Sector (Blumenthal et al.,2020). Further India is one of the nations which is providing vaccination to other developed nations.

Health and hygiene parallelly considered as most prominent factors for social development. People comprehended it well during corona pandemic. As this incurable malady has created an immediate menace to people's health and led the outbreak of flu like pathosis amongst society. COVID-19 has



REVIVE TO SURVIVE

Initiatives and Innovations

Edited by
Dr. Meenu
Dr. Balpreet Kaur

Bharti

21 Financial Inclusion: Progress and Growth in India

Prabhjot Kaur
Assistant Professor, Department of Business Management,
DAV Institute of Engineering and Technology, Jalandhar, Punjab

Bhupesh
Assistant Professor, Department of Commerce, Guru Nanak Dev University College, Nakodar, Punjab

Abstract

An economy's financial system is its spine. The country's economy can endure and develop only under a strong financial system. The concept of financial inclusion has recently gained great attention in the financial system. International organizations that promote inclusive finance are commendable. This study aims to analyze the status quo of financial inclusion in India. The Reserve Bank of India continues its efforts to expand access to financial services. This paper includes the data collected from secondary sources. Data snapshots provided by international organizations such as the International Monetary Fund and the World Bank are used to study India's financial inclusion. A glimpse of various schemes of RBI for economic inclusion has been supplied in this paper. This paper also highlights the outcomes of initiatives taken by GOI and RBI.

Keywords: *RBI, Financial Inclusion, ATM, Global Findex, IMF, Crisil, GDP, PMJDY, Credit, Saving Accounts.*

Introduction

India is a developing nation and has around 139 crore as it population. Most of the people are residing in undeveloped and rural areas. The aim of financial inclusion to provide facilities to the poor section in the economy, where they cannot avail these in the normal working conditions of the financial sector. 1. Inclusive finance is to provide all sectors of society, including disadvantaged groups, such as the most disadvantaged and poorest groups, with sufficient financial products and services at an affordable cost and in a fair and transparent manner. Chakrabarty, K. (2013) 2 According to a report by the World Bank (2014) 3, "financial inclusion means that people and companies can access useful and affordable financial products and services (transactions, Payments, savings, loans and insurance) meet your needs and deliver in a responsible and sustainable way".

As per above definitions Financial inclusion means the process of ensuring that disadvantaged groups (such as low income and poorest groups) have access to financial services and timely and sufficient credit when they need them at an affordable cost. It includes provide saving account with no basic minimum balance requirement, insurance facility to the account holder at a nominal rate, overdraft

EMERGING TRENDS IN COMMERCE AND MANAGEMENT

EDITORS
Dr. Prabhpreet Kaur
Ramnik Kaur
Dr. Sukhdev Singh

ISBN No: 978-81-948872-3-2

Published By:
National Press Associates, New Delhi
www.npapublishing.in

CSR INITIATIVES IN MANUFACTURING INDUSTRIES REFLECTING ENVIRONMENTAL PARAMETERS

*Annumeet, **Dr. Sukhdev Singh

*Assistant Professor in Business Management, DAV Institute of Engineering and Technology, Jalandhar, India

**Dean Research & Professor-in-Management, CT University, Ludhiana

ABSTRACT

In the previous years, the preoccupancy regarding environmental matters has been increased within the firms. On one context, now companies' purpose at cleaner, environmental output, or manufacturing lines. On the other context, most of the companies have initiated to devote money in different projects of CSR, having as target distinct environmental matters. In the present paper, we concentrate on a set of facets and barometer expressed by manufacturing units, with respect to their environmental conduct. The requirement for a cleaner environment has purposeful strategy builders and distinct organizations to take up manifold codes implying to environmental exercise of companies. The data has been taken and based on the sustainability reports of 35 manufacturing companies listed in BSE. We analyse the vital environmental facets and barometers which were declared by these firms in the year 2019. The outcomes which have been drawn by the qualitative analysis could add to the estimate of the amount to which environmental norms are presently considered by manufacturing units.

Keywords: CSR, environmental performance, Sustainability, Emission, environmental indicators

INTRODUCTION

Financial specialists' and the overall population's mindfulness with respect to the significance of ecological assurance has driven organizations to take part to restrict the denial effect that their exercises have on the climate. In the words of (Nazari et al., 2015), while partners are currently depending on manageability data in their evaluation of organizations, the revelation of environmental work barometers, just as environmentally amiable proportions of organizations, has gotten basic.

The Sustainability concept has produced a move in the manner organizations join corporate communal duty inside their methodology. According to (Benn and Bolton, 2011), company Sustainability characterized as a "business approach that makes long haul an incentive for the association by joining financial, natural and social measurements into its centre business choices".

The UN Guiding Principles on Business and Human Rights and ISO 26000 norm have been set up to help the execution of socially dependable and maintainable activities inside organizations. The financial, ecological, and social estimates and execution of organizations are presently uncovered in yearly Sustainability reports and CSR. For an excellent translucence of this data, organizations can receive an announcing rule for CS, for example, the GRI rule. An examination on corporate social duty revealing in the year 2019 has delineated differences in the manner organizations present their exhibition and estimates, the perspectives which they comprise in their yearly documents.

As the exercises of manufacturing organizations have been broadly seen as a danger to the climate, revealing their natural execution can give important data to all partners, including worldwide associations and govt that attempt to moderate denial ecological impacts. This article targets recognizing the fundamental viewpoints which were introduced in CSR reports, just as the principle ecological markers distributed by manufacturing organizations utilizing the GRI detailing rule.

LITERATURE REVIEW

CSR in the manufacturing Unit: The idea of corporate communal obligation has created in time from alluding to business activities pointed towards cultural desires, monetary development, and the communal climate of the

Revive to Survive
Initiatives and Innovations

Edited by

Dr. Meenu
Assistant Professor, PG Department of Commerce and Management
DAV College, Sector-10, Chandigarh

&

Dr. Balpreet Kaur
Associate Professor, Department of Management Studies and Commerce
DIPS Institute of Management and Technology, Jalandhar

Bharti Publications
New Delhi-110002 (India)

Contents

Chapter 7

Association between Corporate Environmental Disclosure and its Profitability Performance: An Empirical Study

Dr. Annumeet

Assistant Professor in Management, DAV Institute of Engineering and Technology, Jalandhar, Punjab

Abstract

The aim of the present study is to examine the effect of company's financial performance on the extent of corporate environmental disclosure and the financial performance has been measured by return on asset (ROA), return on equity (ROE), net profit and operating profit. The sample of study has been taken 100 large companies from the manufacturing sector and listed in the Bombay stock exchange (BSE) and the period of study has been taken from 2012-13 to 2016-17. The statistical techniques which have been employed to achieve the objective are descriptive statistics, coefficient of correlation and multiple regression analysis. In this study, we have set up different hypothesis and these hypotheses have been proved with the help of various tools. After applying the statistical techniques, we have found that to some extent the corporate environmental disclosure has been depending upon the financial performance of the company. Some financial performance variables like ROA, ROE, net profit and operating profit are significantly associated with corporate environmental disclosure and some are not significantly associated. We have also made the association between corporate environmental disclosure and financial performance regarding Indian companies and MNC's companies and found that in case of Indian companies in some cases corporate environmental disclosure depends upon the financial performance of the company while in other cases it does not but in case of MNC's companies no association exists between corporate environmental disclosure and financial performance. Keywords- Financial performance, ROA, ROE, operating profit, net profit, corporate environmental disclosure.

Introduction

With the passage of time, environmental disclosure has gained importance and firms have started to contribute material related to the environmental significance of their activities and there has been a developing movement in environmental disclosure (ACCA, 2004; Jones et al, 2005; Sumiani et al, 2007). The term environmental disclosure indicates to the formation of material by management for the need of various stakeholder troops on the environmental conditions and conduct of their firms or organizations (ACCA Malaysia, 2002). Each stakeholder of a firm intention to acquire legitimate and true material both of a monetary and of a non-monetary type and firms should detail their monetary statements as per to the fairness and clarity conventions. Companies must have an intention to fulfil the all kind of long period interests of their stakeholders (Cowen, 1987; Wokutch et al, 1987).

Currently, investors are considering at barometers that contribute material about the sustainability constituents of businesses (Neely, 2007). Sustainability book keeping is robustly corresponding with the conventions of sustainable development. New assumptions present the perception that

Emerging Dimensions in Management and Commerce

EDITORS
Prof. Ramnik Kaur
Dr. Prabhpreet Kaur

ISBN No: 978-93-90863-05-1

National Press Associates
New Delhi

CONTENTS

COMPARISON OF ONLINE AND OFFLINE MODE OF DISSEMINATION OF CORPORATE ENVIRONMENTAL INFORMATION

*Annumeet **Sukhdev Singh

*Assistant Professor in Business Management, DAVIET, Jalandhar, Punjab

**Dean Research & Professor-in-Management, CT University, Ludhiana, Punjab

ABSTRACT

The expansion in internet and other IT has changed universal convenience of requisite material beyond national confines. Today most of the companies are taking benefits to unveil financial as well as nonfinancial material like environmental related material to their stakeholdees because of internet's capacity in dispersing material at a high speed. In the present study, 100 companies have been taken as the sample of study and these 100 companies are listed in BSE-500 Index Stock. In the present study, MS-Excel analysis tool pack has been applied as software and T-test has been used as the statistical technique to find out the comparison of online and offline mode of dissemination of environment related information of Indian companies and MNC's. It has been analysed that; it is a melancholy state of incident when some of the leaders of the huge corporate world are not contributing any kind of information regarding their environmental performance been found that still in India environmental reporting on the web is at its infancy stage. With large market capitalisation and huge corporate houses are not very much concern about their environment surroundings. They did not even mention a single word on their websites especially MNC's who are dealing globally, and they should be more conscious about the surroundings where we are living but still after studying the companies it was a pity situation.

KEYWORDS: Corporate environmental disclosure, sustainability reporting, Stakeholders, MNC's, annual reports

INTRODUCTION

The use of the internet by the corporate houses for the different business objectives is today prevalent (Scott and Jackson, 2002; Coupland, 2006; Jenkins and Yakovleva, 2006). Internet is a place where to do business or as a spot to transfer business material. Those engrossed in environmental material the internet also contributes a global meeting field (Jenkins and Yakovleva, 2006). The allure of such internet environmental reporting (IER) is clear in terms of the cost accumulation and the content of approach for a raising number (Gray and Bebbington, 2001). The internet environmental reporting (IER) not only curtail the expenditure of corporate but also attempt the ability that means to enhance public approach to material on firm conduct and to attempt an immense volume of material, granting the user to download the published substantial as they want (Scott and Jackson 2002, p-195).

ENVIRONMENTAL REPORTING ON THE OFFICIAL WEBSITES

In the words of Yang et al (2005), competence of material describes to the fulfilment of the material. In view to output structure decision making the websites should stockpile material that will expedite the perceptive of users. This research analyses the competence of material to contrast the amount of environmental related material feasible on official websites of selected sampled companies with the amount of environmental reporting in ARs.

LITERATURE REVIEW

Jones et al (1999), they have analysed the sample of 275 firms beyond 21 countries and 21 sectors and the target of the research was to investigate the proper utilization of company websites for transmitting corporate environmental information by the listed companies. The researchers have planned a survey of 100 managers, to explore their prospect on the usage of their corporate websites for transmission of corporate environmental information and the results which have been drawn by the authors that 59% of the sampled firms communicate