Facial Emotion Recognition through TFERA

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Abstract **-** This research paper is focused to study the expressions on the human face and infer the human emotions from thermal facial images. The basic human emotions are happiness, sadness, anger, surprise, neutral and fear. Earlier research have analyzed and identified these emotions from visible facial images. The research had its drawback of using the visible facial images in the visibility of emotions on the images captured in varying illumination and pose variations. Poor illumination hinders the calculation of the actual expression shown on the face. Fake expressions shown by the person in the image can always lead to the wrong identification of expressions. To overcome the drawbacks in using visible facial images in emotion recognition, this research have used thermal images for emotion recognition. The proposed algorithm TFERA proved to be successful in identifying emotions in poorly illuminated areas and also to overcome the fake emotions shown in visible images.

Keywords **-** *TFERA; Thermal images; Visible Images; Image Registration; ROI; Emotion Recognition.*

I. INTRODUCTION

Human emotions may be a resultant of various psychological factors that may or may not be revealed. Thus a human facial expression is a spontaneous outcome of a significant interactions or emotion, which can be expressed through their head motion, behavior or partial occlusions. Thus recognizing the expressions from these measures proves to be challenging in the development of automated facial expression recognition system. The research to identify whether human beings can show a common expression to express their emotions started in 1950's. The expression varied from the people of different culture and places [14]. The research further proved that particular emotions with an exception that the faces from literate cultures showing specific emotions were highly judged by people from a preliterate culture with a less opportunity to have learned to recognize uniquely western facial expressions.

Analysis and recognition of facial expression is a research subject for psychologists from 1970s, which led to advanced research accomplishments such as face detection, tracking and recognition. Face recognition plays a major role in tracking the expressions in a face, but pattern recognition problem proved to be complex. The face has meaningful and multidimensional visual stimulus. Identifying the features representing a face and classifying a new face image based on the representation was a typical pattern recognition problem. The feature representation approaches used are Eigen faces, Principal Component Analysis (PCA), Gabor Wavelet features, Linear Discriminant Analysis (LDA), Local Binary Patterns (LBP) and Independent Component Analysis (ICA). These patterns can be efficiently used to train machine to detect facial emotion by assigning a weighing function and develop a multi cultural facial emotion translation system. Thus recognizing facial expressions by computer was developed by Paul Ekman et.al 1976 [15] a procedure to measure visibly different movements of face, deriving facial action code to analyze the anatomical basis of facial movement. Thus evolved automatic expression recognition system that identifies the basic emotions such as anger, happiness, surprise and sad.

The expression identification was a real task for system when images are captured in poor illumination and in pose variation by the subjects. Thus the percentage of expression recognition depends on the quality of the image and the illumination and pose during the capture of the image. These disadvantages of using of using a visible image for emotion recognition can be overcome by using thermal images, since the emotions are studied in thermal images through the variations in the heat levels in throughout the facial region.

II. LITERATURE SURVEY

Facial emotion recognition deals with the deformation of facial features from the visibly seen features from visual images. Facial expressions can be learned from the temporal measures such as onset, apex and offset that are used or coding but did lack in precision. Facial Electromyography [9] computes the onset and offset parameters of facial expressions. Behavioral Psychologists studied the facial features [2] by positioning certain facial features within the regions of interest from the facial images. The features were used to determine the rotational and translation displacement of head pose by measuring the center of one eyeball to the corresponding eyeball that lead to the detection of eye gaze direction for the eye [6].

Personality perception was based on the behavior of full body [10] rather than focusing the action units of face. High quality and controlled static images are used for facial feature extraction due to logistical reasons [1] [23].

Most of the facial expression recognition map facial expressions on to the categories of archetypal emotions that make the emotion recognition complex in images that shows no emotions [18]. The problem was solved through FACS framework [17] which is a model based analysis that

overcomes the disadvantage but the framework was highly dependent on the illumination quality of the images [21].

The classical method of using eigen faces [13] was used in stereovision technique to acquire three dimensions [5] of facial image using two cameras to implement an algorithmic chain to convert two dimensional spaces of two images acquired from two cameras into 3D data of human face, which is the requirement of virtual reality [22] related applications. Johel Miteran et all, 2007 [11] has proposed a technique based on multi-processor approach that allows embedding and reconfiguring process to find the depth map of face [24]. The approach was precise and reliable for applications related to multimedia, virtual worlds and biometrics. The major drawbacks in using visual images were solved by using thermal images which can capture real expressions and identify the emotions within a person through the measurement of heat variations. The performance statistics of identification and verification of faces on visible and thermal images based on Monte Carlo analysis of performance measures are listed by Diego et al. 2003 [8]. The analysis proved that under many circumstances thermal images yield higher performance when compared with visible images.

III. PROPOSED METHODOLOGY

Visual learning approach is based on the selection of suitable regions for feature extraction and extracts Gray Level Co-occurrence Matrix (GLCM) to compute region descriptors. Support Vector Machine (SVM) classifiers are used to classify the emotions

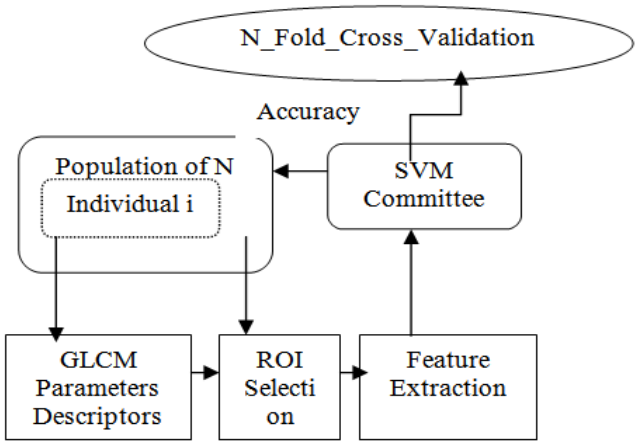

Figure 1: Visual Learning Approach

The cross validate accuracy outperforms human classification by an average of 16% which is a promising result because the learning approach is independent of how the regions are defined and the type of image used to extract features. [3].

The proposed Thermal Facial Emotion Recognition Algorithm - TFERA is mainly focused to determine the emotions from thermal images. Real time face library is used in developing TFERA. Thermal images have the temperature intensity variations shown by two colours blue and red. The temperature is measured in different regions of interest (ROI) based on the pixel intensity of blue and read colour in those regions. The temperature shows variation in different ROI for different emotions. Therefore mapping of those temperatures onto the ROI has identified the emotions almost accurately.

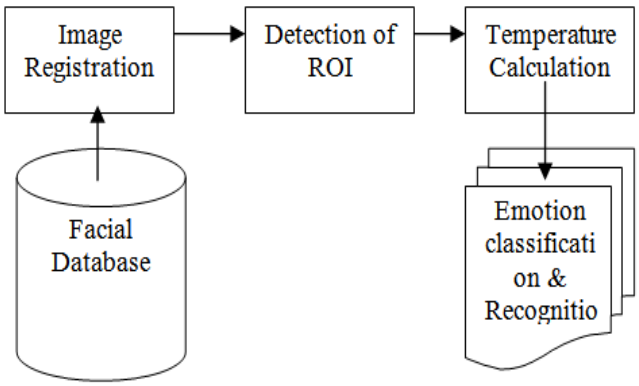

Figure 2: Proposed Thermal Facial Emotion Recognition System

Researchers have strongly stated that facial actions have great impact on the emotion activation process that involves the nature of expression. Activation of an emotion through referent loop or cerebral blood flow can resist the direct empirical validation [4]. Although humans can control there expressions naturally, blood flow to certain regions due to their inner emotions happens naturally. Stress level can be quantified [7] through the thermal signature by measuring the blood volume between a baseline and a Stroop Session [19]. Therefore, with this study the proposed algorithm TFERA was developed. The emotions were traced in thermal images through the temperature variations around the selected ROI such as periorbital, nasal, left cheek, right cheek and chin. The emotions showed a different in the temperature map in these regions. The proposed algorithm works in two phases: images processing and classification.

IV. EXPERIMENTS AND RESULTS

The proposed thermal facial emotion recognition algorithm consists of four major stages that include:

- Image Registration
- Face Detection
- Calculation of Facial Temperature
- Emotion Recognition

A. Face Library - Real time face library was used in this proposed method. The images were captured from 10 subjects in varying situations. The face library was collected with FLIR E8 thermal camera that has an IR Pixel Resolution 320 x 240 with thermal sensitivity < 0.06^0C and temperature range of -20 to 250^0C. The subjects were asked to not show any visible emotions such as anger, happiness, surprise etc., since analyzing a visible emotion such as laughing and identifying the emotion as happiness is easier, but to find the hidden emotion is the real task in this algorithm.

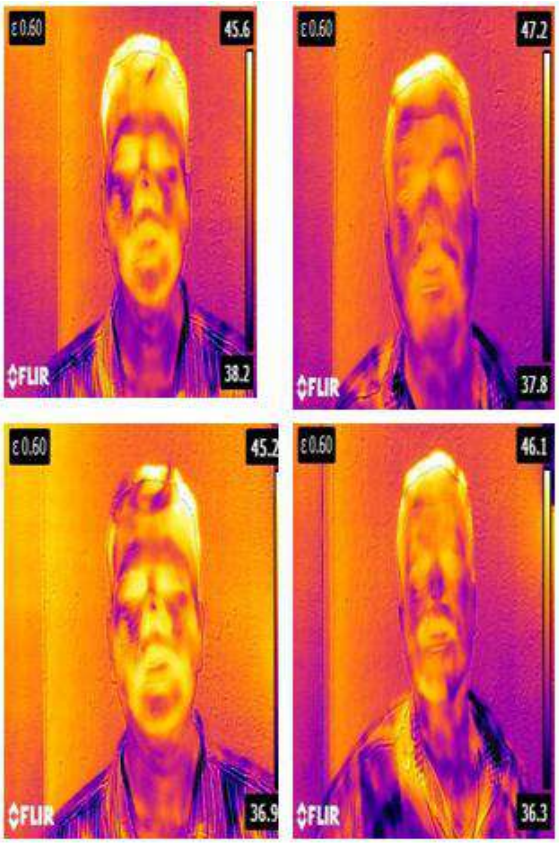

Figure 3: Thermal Facial Images

B. MATLAB - MATLAB R2014a is used for the study of emotions from facial images. The research tool is proved to be highly appropriate for image processing since MATLAB programming language provides a wide environment in design, modeling, simulation and testing with higher level functions that speed up the development of advanced applications. Also MATLAB is more appropriate in calculations when compared to other scientific tool such as LabVIEW [20].

C. Image Registration - Image registration technique is used to align and integrate images captured in same scenario at different times, may be of seconds, days, months or years. The different scenario also can be capturing images at same time with different devices, thus with different resolution.

Figure 4: Image Registration

The time difference helps us to overcome the issues such as image scaling, rotation and skewing during the image capturing process [16]. In a 2D image with a size denoted by I1 and I2 there I1(x,y) and I2(x,y) map to their respective intensity values, then the mapping between images can be expressed as:

$$I_2(x,y)=g(I_1(f(x,y))) \longrightarrow (1)$$

where f is a 2D spatial coordinate transformation as:

$$(x',y')=f(x,y) \longrightarrow (2)$$

and g is one dimensional intensity or radiometric transformation [12]. The problem in image registration is finding the optimal spatial and intensity transformation so that the images can match with regard to the source. Geometric transformation is represented as two single-valued functions fx,fy.

$$I_2(x,y) = I_1(f_x(x,y), f_y(x,y)) \longrightarrow (3)$$

also expressed as a pair of separable function as:

$$F(x,y) = f1(x) \text{ o } f2(y) \longrightarrow (4)$$

where f2 is applied to each row and f1 is applied to each column.

Transformation T is linear which is represented as,

$$T(x1 + x2) = T(x1) + T(x2) \longrightarrow (5)$$

and,

$$c\ T(x) = T\ (cx) \longrightarrow (6)$$

Global transformation map straight lines into straight lines, therefore linear is commonly used in registration transformation to match two images of a scene taken from the same angle of view and from different position.

D. Facial Temperature and Emotion Recognition - The temperature of body is a measure of the heat rid by the body that is maintained even when the temperature around changes. In hotter temperature, the blood vessels in our skin widen to carry excess heat to the skin surface, thus sweating helps to cool the body temperature. Similarly, in cooler temperature, the blood vessels of the skin narrow to reduce the blood flow to the skin.

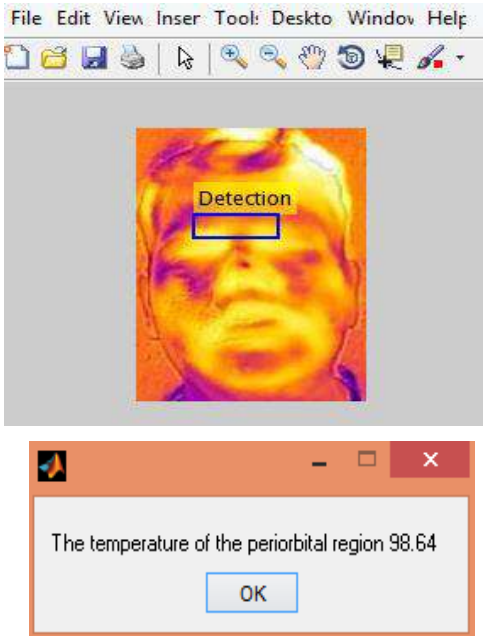

Figure 5: Detection of ROI and Calculation of Temperature

The algorithm works on five different ROI which are detected and cropped to analyze the pixel intensity in those regions. Intensity discontinuity is measured in the points, lines and edges that help to calculate the sum of the coefficients of the products using the intensity level in those regions of interest. KNN classifier with the help of trained samples and emotions were used to map and detect the facial emotions.

Table 1: Distribution of Facial Temperature

Image	Periorbital	Left Cheek	Right Cheek	Chin	Nasal
1	99.14	99.76	99.85	100.16	99.4
2	99.21	99.8	99.87	100.36	99.25
3	99.75	99.82	98.71	100.1	99.18
4	97.61	98.52	99.64	99.77	99.15
5	98.09	98.71	99.81	100.48	98.39
6	95.57	101.14	100.74	100.6	95.6
7	96.12	101.74	101.8	101.45	93.26
8	97.44	99.18	100.68	101.77	99.67
9	90.47	92.1	100.07	99.99	99.82
10	92.03	94.31	100.16	100.89	101.41
11	100.47	99.37	100.01	99.62	99.3
12	96.2	99.95	99.69	97.94	99.01
13	99.3	99.81	98.42	99.12	99.44
14	90.95	99.15	99.32	96.23	97.58
15	90.9	100	99.64	100.33	100.75
16	99.95	98.43	99.81	100.62	100.18
17	99.68	98.77	101.16	100.57	98.39
18	99.67	99.33	100.38	99.67	97.96
19	100.01	98.36	100.04	100.8	99.89
20	99.97	98.49	101.72	96.49	101.12

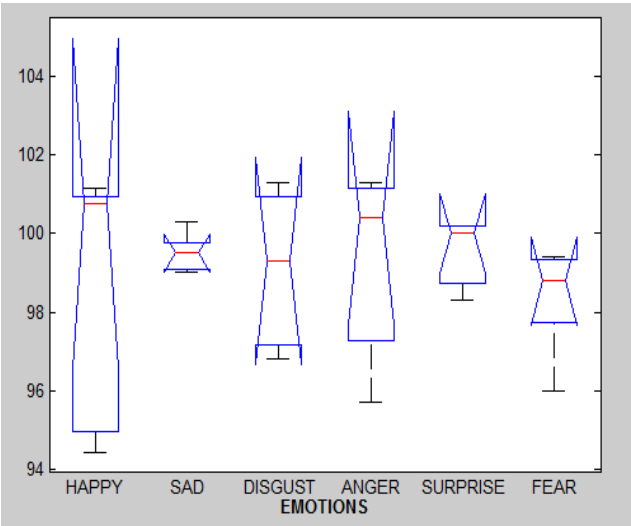

Figure 6: Analysis of Variance Test

V. CONCLUSION AND FUTURE WORK

The proposed algorithm FTERA is a novel approach in recognizing emotions from facial thermal images. The experiments were conducted on the real time face library captured from 20 subjects on various environments. The emotions recognized are happiness, sad, disgust, anger, surprise and fear. The results have proved to be accurate and reliable in calculating the temperature and interpreting the emotions. The algorithm can be applied to perceive human emotions more accurately and respond appropriately to the user's affective states, therefore more useful in security zones with behavioral psychology. The algorithm had certain limitations within such as the ambient temperature and its impact on the body temperature, normal human activity that rise the body temperature, drugs taken and so on. Thus the future enhancement in the algorithm will focus to explore new promising ideas to overcome the limitations.

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An Emerging Tech Innovation in Indian Banking with Artificial Intelligence Application: Challenges and Opportunities

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Abstract

Demis Hassabis CEO of google DeepMind calls AI as "the science of making machines smart"

Artificial Intelligence in banking and other financial sectors is showing signs of interest and adoption. AI will enable financial services companies to completely redefine how they work, create innovative products and services and transform customer experiences.

AI is set to have a truly positive impact on people by removing monotonous repetitive task from day to day work. A bank can expect potential savings of between 20 to 25 percent across IT operations including infrastructure, maintenance and development cost.

A digital boom is certainly taking place across all segments of banking thus making the operations more hassle free and impactful creating a leaner system to work on but certainly with challenges.

These are some of the areas of AI applications in banking sector.

Block chain, digital payments, IOT, AI, Machine learning, BOTs, robotic process automation, smart wallets, underwriting.

This paper highlights the importance of technology, challenges, opportunities and new innovations in Indian banking sector with the use of artificial intelligence.

Keywords: Innovation, AI application, future of AI in Indian banking, banking sector, digitalization, technology, challenges.

Machine Learning has just turned into another innovation. It has become a part of our day to day lines. Banking sector has long approached fresh information and data utilizing that information to accomplish productivity and [illegible] better administration.

CHALLENGES WOMEN ENTREPRENEURS FACE IN INDIA

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Abstract

It's a known fact that success doesn't happen overnight, things take time, it demands hard work and enthusiasm. In today's world, women entrepreneurs are playing a very vital role. Women entrepreneurs' development is an essential part of human resource development. The development of women entrepreneurs is very low in India due to various criticisms they face. The main purpose of this paper is the challenges that Indian women entrepreneurs face in India. Another main purpose of this paper is to analyze the policies of Indian government for women entrepreneurs, and to analyze if those polices are adequate for the growth and developments of women entrepreneurs.
Keywords: *Entrepreneurship development, Government policies, women challenges, key to success.*

Introduction

India is one of the fastest emerging economies and the importance of entrepreneurship is realized across gamut. Women entrepreneurship means an act of business ownership and business creation that empowers women economically increase their economic strength as well as a better position the present society.

The new generation women across the globe have overcome all negative notions and proved themselves in all spheres of life. Gone are the days where women were considered as no match to all powerful men. Women these days end up being the back bone of not just their own homes but the economy of the country. A difference between the genders is predominance that men want to grow their new ventures to achieve financial success whereas for women financial success is just one of the many reasons to start and grow a business. Women tend to have success that emphasizes quality of life in the community and recognizes place-based needs other than employment and income.

The impact of globalization, liberalization, industrialization and with the growth of education and awareness the women have shifted their roles from kitchen to industry.

Women entrepreneurs still end up playing different roles and have more responsibility on them to find the right balance between their family and their career.

Review of Literature

- Bowen & Hisrich, (1986), evaluated many research studies done on women entrepreneurship. It concluded that female entrepreneurs are relatively well educated in general but are not having proper management skills, high in internal locus of control than other women in their values & are likely to have had entrepreneurial fathers. Recent study on changes in women entrepreneur in Asian developing countries. The study focused mainly on women entrepreneurs in small and medium enterprises based on data analysis and review of recent key literature. The study found that women entrepreneurship is gaining overwhelming importance in all sectors. The study also depicted the fact that representation of women entrepreneurs in this region is relatively low due to factors like low level of education, lack of capital and cultural or religious constraints.

DIGITAL MARKETING-*Attempt to Comprehend Digital Marketing*

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ABSTRACT

Imagining all the hard work you've put up for your presentation by editing, pictures, backgrounds and still it is not attractive and all your hard work goes in vain. Likewise, anything overdone in Digital Marketing can lead to avoidance, and also the old fashioned techniques used to grab customers attention. The more you keep it simple the more fruitful will be the result. Having a proper audience for your products or services is the main concern in Digital Marketing. These days Digital Marketing is a process of continuity to make your products and services visible. There are too many risks involved in Digital Marketing, for example searching data online with outdated information. The paper aims at bringing out the issues, challenges, advantages and disadvantages of Digital Marketing. To have a better understanding of the concept of web-hosting for Digital Marketing, impact of digital marketing by interaction on social media and finding the influences of digital marketing on business and customers.

Introduction:

Digital marketing is the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. Welcome to the world where you don't see wall sized posters, huge banners, hoardings, brochures, pamphlets, hand painted offers on wooden boards. Welcome to the world of digital marketing. This world is evolving at an incredible pace. Internet technology has presented a new horizon to businesses and industries throughout the world. Internet has made possible for different brands from different countries to be available to the customer in another in no time. Products once reaching customers regionally are now reaching globally. It has replaced large factories, store houses and huge assembling units of finished products which are a huge cost to the

manufacturers with virtual store space. Technological advancements are resulting in improved trends in reception, interpretation and implementation of information we receive from the markets about their products. Digital marketing is one such tool which makes the customers have a clear, attractive, convincing, informative perspective before they make their buying decision.Digital marketing is getting the stores right at the fingertips of the customers. Aiding help from research on consumer behavior companies manage to look at the product/promotion from a consumer viewpoint.

Digital marketing totally evolves the customer experience in the ever competitive market. The very choices given to customers, the plethora of offers to choose from, the price drops, ad campaigns and attractive ways of marketing attracts the customers. It follows the system concept of input process, output and feedback. Input: research and findings of customer expectations, output: varied ad campaigns and digital activities, feedback: response and interaction with the customers.

Digital marketing starts to work from the inception of thought of purchasing a product by the customer. It has given rise to the arena of web –hosting in the market. Web hosts provide super-fast dependable services to DM.

Web hosts provide reliable server ability, huge data storage capacities, multiple internet connections, easy recovery of lost data, handling internet traffic during prime times, scripting languages, payment terms , privacy policies etc.. DM needs continuous user-internet interface also which the web hosts provide. DM has varied advantages and disadvantages to both business units and customers.

Objectives of the paper:

- To understand the background of digital marketing with respect to internet.
- To know the concept of website hosting for digital marketing.
- Finding the influence of digital marketing on businesses and customers.
- How to overcome issues in digital marketing.
- To conclude on merits and demerits to customers and businesses by digital marketing.

The internet is a global web of computer networks that is basically free but users need to pay a service charge to be hooked to it.

Advantages of digital marketing to companies:

1. Direct marketing: The message or appeal is developed to determine "what to say" to the audience so as to achieve the desired results.
   Digital marketing has a positive impact on direct marketing as the companies use digital marketing to make the consumers aware before salesperson visits them. The company can target a particular group to get their business done.
2. Target potential customers: Every time a customer's opens a link for your website the code drops cookie, and when these visitors browse internet the cookie will let your target provider to serve ads ensuring your ads are given to people who have previously visited your website. In such a situation the company will target interested customers and will act as a reminder for those particular customers.
3. Advertisements related to search: Online advertisements on web pages show results from search engine queries. Ads can also be placed on web pages with other published contents.
4. International expansion: Globalization is no longer an obscure term reserved for academic, it is very real and ever growing and in the digital arena, this means the company's website also needs to be a part of the global mix.
5. Minimal cost involved: To reduce marketing cost the industries use digital marketing as it reaches maximum number of customers with minimum cost which is also affordable by small companies.
6. Evaluate feedback: The response of the customers or the number of customers who have viewed your advertisement can be evaluated by number of shares your blog posts receives, the size of your fan base on social networking sites, and the number of positive reviews left about your company.
7. Digital platform: There are countless technical tools, applications and platforms that the company can use to reach the advertising goals.

Advantages to the consumers

1. Wide range of selection: Digital marketing acts as a flexible platform with multimedia capabilities for receiving the content in a variety of formats. Low barrier with minimal technical or IT skills.
2. Shopping anytime or anywhere: The market place has become increasingly more digitalized and more consumers are buying products online. According to Forbes research, 82% of consumers buy products online.
3. Time saving: Online shopping saves time of the consumer as they can shop anytime as it gives opportunity to shop 24/7. It is hassle free shopping as the customers are free to shop without any crowd.
4. Update information: It very easy and convenient for the consumers to get the latest updates on new trends and products with just a click. The consumers get to see the product and with available alternatives which make it easier to chose from different alternatives.

5. Transparency: The companies are becoming increasingly transparent in an effort to engage, instead of talking to their customers and prospects they are inviting them into their world.

Disadvantages of Digital Marketing to companies:

1. Competition: Digital marketing is an open field where a lot of players are involved. Thus generating tremendous competition, where the level of competitiveness often leads to unhealthy standards of marketing.
2. Limited access to technology & Consumers: Though India ranks one among the top purchasers of cell phone in the world. Yet the consumer bases are not well acquainted with latest technological advancements, which are used by Digital Marketing to market their products. And majority of the Indian population resides in the rural part of India which is yet to realize technology and its features.
3. Limited space for Advertising products: When a customer is been the target of a digital marketing exercise there is a limit to the amount of data that the customer can process. Thus there is not enough space or platform to showcase the products. Even though the space or platform issue is addressed. Customers seldom have the patience or interest to listen to the marketing proposal.
4. Visibility of Negative Customer Feedback: Most of the customers when happy go back to their daily life without spreading the positive experience the same cannot be said of negative feedback. The customer would make time and ensure that negative feedback is provided. Often the negative feedback is exaggerated usually discounting customer error. And there are instances where competitors have paid trolls who go about providing negative feedback for a fee. There are no systems in place to check the veracity of these negative claims.
5. Inadequate Knowledge: Companies do not have precise data about customer behavior especially the customer base that are part of the digital world. And very often companies venture into the sphere of digital marketing with fractured data or manipulated data.
6. Lack in Trained professionals for Digital Marketing: Like mentioned earlier above the customer have limited patience or interest to hear the marketing pitch. One has to be extensively trained in customer handling skills where the marketing agent needs to understand and proactively reacts to the customer needs therein fulfilling the pitch. The digital Marketing lacks lot of trained professionals due to the fact that the companies are not investing enough resources and time to develop professional marketing strategies and workforce unlike the western world where enough attention is given in grooming marketing professionals as much as design and manufacturing ones.

Disadvantages to Customers:

1. Security Issues: With the ever growing digital world it has its own set of challenges. Web security or Cyber security is of the utmost concern. Most of the phishing attacks are through the digital marketing sphere. This is bad for both the customers and companies as well. Hackers have used company email address to send Spam emails and phishing attacks targeting the SMB business owners who do not have adequate security systems in place to check this menace.
2. Fail to recognize offline marketing: Since most of the customers are bombarded by ads and marketing pitches during the entire course of the day. Not many have the patience or time to go through all of them. Many instances customers have declined such pitches due unavailability of time. Thus in such instances offline marketing has great scope where a customer can accept and assess the marketing pitch during his leisure time.
3. Too Many options to select: The customers are bombarded by so much marketing material through calls, messages and emails that they seldom go through any of it. And often end up confused with overload of information and too many options at hand.
4. Irrelevant ADS lead to distraction: When customers are exposed to overload or unfiltered marketing stuff. They are often distracted by the ads which are not exactly what they are seeking and are led astray in purchasing things which they did not intend to buy or do not need.
5. No personal Rapport: Digital Marketing takes out the human touch out of the marketing strategy. The whole process seems very robotic and automated. And with the absence of human interaction a vital element is missing from customer interaction i.e Customer Rapport.
6. Lack of Hands on experience: Most marketing professionals or company who have ventured into Digital Marketing lack experience in real time marketing strategies which does not translate very well in understanding the customer needs and concerns. This invariably leads to a confused customer who would rather not make the purchase or sale.
7. Technical Faults: Digital Marketing sphere is prone with lot of technical issues. Spam is one of them where the customer receives spam emails, messages and calls. Customer also faces issues where there are incorrect payments or payments not reflecting due to issues on the payment process or the way the payment process has been designed. There are instances where there is a huge mismatch between the actual payments received from the customers.

Issues faced in digital marketing: Digital marketing as any other trend in market faces issues in the current market and simultaneously coping with competition.

Common and current issues are:-

1. Getting loyal customers: It's understandable that the market has stomach full to offer to the customers .this leads to difficulty in choosing the right commodity and judging which attracts one more than the other.
2. Customer fragmenting: Classifying the customers into different segments is one challenging role for every business using DM. with continuous change in demographics, lifestyle and consumer behavior it is difficult to have a static plan of DM.
3. Multiple distributing channels: With more channels to reach the customers focusing on any one or finding the one which fetches more ROI is a strenuous job.
4. Target issues: The target customers might simply browse the business websites but not really make a buying decision. Reasons may be from the perception failure regarding the website the customers have.
5. Not finding offers on homepage: Many a times the business websites don't show the offers on the homepage and they might have to click to different pages to find the same resulting in loss of interest in the customer.
6. Consistency in reminders: If the ads are not continuous or often seen on websites then the product or services are quickly forgotten, hence daily updating is required on social websites which can be expensive to the business.
7. Lack of 360 degree knowledge in STAFF: The employees might not be well equipped with the current knowledge of new trends and tricks hence giving them trainings and giving knowledge transfer sessions is essential and is a big cost to the businesses
8. Elucidation of research R&D reports: The managerial teams should clearly understand the reports received by the research and development departments and very carefully choose the channels of distribution, customer segments to obtain expected ROI.
9. Feedback of working teams: Many businesses fail to take employee teams feedback on the process of marketing and don't really communicate the results of their efforts in the process. The businesses should take in their feedback to understand better ways of input and required output standards.
10. Organizational structure loops: Many organizations do not have flexible structure and have difficulty in giving credentials to those who have offered high efforts. The businesses need to simplify their structure to reduce role redundancy, and embrace an open platform for more co-ordination and motivation as it contributes to have a good motivated staff.

Addressing the Issues:

1. The companies can hire skilled workforce who can effectively help evolve particular section, as this is the most cost effective way to reach out to the customers.
2. Ensuring that marketing strategies are targeted towards their respective consumer basis. Thus, avoiding unnecessarily spamming potential consumers.
3. Concentrating more on cyber security or web security to ensure consumer data is not compromised in any manner at the same time enabling customers to have more faith in digital system.
4. Addressing the negative customer feedbacks received with genuine concern to avoid further such experiences and amply placating the aggrieved customer.
5. Companies can invest in grooming future marketing professionals and marketing strategies that can support in the ever growing evolution of digital marketing.
6. An effort should be made from the government as well as the companies for the education of the consumer base regarding digital marketing including the rural section of India which is often neglected in comparison to the metros and towns.

CONCLUSION:

Digital Marketing is the critical activity of any business organization in the recent times. Social media is an important element for making your business flourish and give returns on Investment. It is a huge market where any service you produce in industry it can be marketed, rather than making it unused and waste. This is the best way to sell your products and services.

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Contents

DIGITAL BANKING- A BRIEF DISCOURSE ON DIGITAL BANKING

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Abstract

When a bank provides services online to its customers who makes transactions, sends requests and all other banking activities it is known as Digital Banking. Most developed nations of the world boast of robust banking systems, which is essential for the development of the economy. Though banking sector has made commendable changes with regard to customer services, we still find a lot of loopholes faced by the customers. In this paper we are going to bring out the issues related to digital banking , knowing if digital banking does its purpose or a service which merely not advantageous to the customers. Long gone are the days where the banks were the elders or lockers "tijoris" at home. With digital media and smart phones evolution we have access to a lot of information.

Keywords: transactions, loopholes, tijoris

MEANING OF DIGITAL BANKING:

Digital Banking is providing banking services using digital technologies, mainly on the Internet, but also including mobile phones, and any other digital medium. Internet has made possible for different banks from different countries to be available to the customer in another in no time. Services once reaching customers regionally are now reaching globally. Technological advancements are resulting in improved trends in reception, interpretation and implementation of information we receive from the markets about their products. Digital Banking is one such tool which makes the customers have a clear, attractive, convincing, informative perspective before they make their buying decision.

Most developed nations of the world boast of a robust banking system, which is essential for the development of the nation. Majority of the issues faced by the consumers are related to Loan Recovery & Payment, Hidden Charges, non-functioning ATM's and Customer Privacy. Though banking sector has made commendable changes with regard to the consumer welfare. We still find a lot of reported cases where the consumer had to go through considerable agony with their respective issues.

ADVANTAGES OF DIGITAL BANKING:

1. Convenience round the clock: The customers can use banking services anywhere and anytime according to their convenience. It doesn't restrict the customers to use services only in banking hours.
2. Reduction in the use of paper : The main purpose of digitalization is abolishing the use of paper, all transactions and services are carried on using electronic media where no paper is involved
3. Customer services: With internet freely available everywhere, all a customer needs to do to access his account is a device and internet connectivity the customers get personalized service in digital banking, they don't have to wait in long que's to get their services done.
4. Faster settlements: Digital banking transfers money from one account to another account within a span of minutes, no matter how big the amount is.
5. Lesser risk involved: The customers don't have to carry huge amount of money for their transactions. This reduces the risk of carrying cash along with them. Any amount of money can be transferred using digital banking
6. Less transaction cost: Digital banking has drastically reduced the operating costs of banks. This has made it possible for banks to charge lower fees for services and also offer higher interest rates for deposits. Lower operating costs have meant more profits for the banks.
7. Time convenience: A number of services required waiting for considerable periods. Banks had boards put up at their branches specifying the time required for different services. Even simply cashing a cheque took time. But with digital banking it is instant, with no time constraints.

ISSUES IN DIGITAL BANKING:

1. Loan Recovery and Payment: Consumers are not educated on the recovery process and payment procedure. Usually the consumer does not understand the processes at the bank and usually end up signing up for something which they have not understood completely, which to some extent is due to customer impatience. But majority of these issues occur due to the eagerness of the bank to reach their monthly targets. And the absence of accountability on behalf of the agent to sell the customer

what he needs to sell. Most of the times customers are misled about the Loan plan. Failure to c
impacts the CIBIL scores of the customer.

2. Payments: Customers face issues where the EMI payments are not done on time due to
cheque bounces cause the customer damage to his CIBIL scores.
3. Hidden Charges: Many times the customers are not aware that the services which they
which they consider to be free are actually charged. And banks charge customers at the end
annual cycle.
4. Non-functioning ATM's: Many banks who do charge their customers for ATM services are
to be flouting rules for days. The ATM's do not work or are in pathetic condition. The abse
security guards, ATM out of service for days on end.
5. Customer Privacy: The personal details of the customer are misused to make marketing cal
also shared with Ad and marketing agencies.

CHALLENGES IN DIGITAL BANKING:

Pressure to grow: amidst all the existing competition the banks have major pressure to keep gr
and keeping growth a consistent pace.
Pressure to innovate: the banks are under pressure to bring innovative ways into the tradi
banking services as customers expect something new in making more money.

Utilize new workforce available in market: the banks need to hire new workforce to avoid h
resource stagnation. Competitive banking exams can be a pool of resource pulling.

Upcoming non-monetary institutions: companies like google, amazon, paytm allow users to tra
money directly to others bank accounts without even using their own banking services. This
made banks loose the customer interaction with these banking activities.

Updating and upgradation: banks today ought to be highly updated and upgraded in t
technological advancements. Modern banking is lame without it.

Use of digital marketing: data driven marketing has become oxygen for all banks. Digital mark
precedes digital banking.

Educating the remote banking customers: bank customers who are from villages do not unders
digital banking services. Hence taking efforts in the form men money and time the banks ne
educate their customer segments about ease of using digital banking.

Data security: anything digital brings data risk. Digital banking generates lot of database which
be compromised in terms of security. The large data bases are stored in much larger
warehouses. Cyber security is one such strategy where bankers need to hire cyber sec
professionals which can be a costly affair to the bank.

Data sharing: the banks are under obligation to not share the customers data generated du
accessing digital banking services with any other bank or institution.

Cybercrimes: How innovative banks get in their services fraudsters also get innovative in can
out cybercrimes. From managing to relocate large amount of funds from one account or managi
grab minimal amount from many accounts fraudsters can do it all. The banks are required t
vigilante in these types of crimes. Use of biometrics can be used to reduce cybercrimes.

App based software: it's the application software's which are the true road to Digi banking.
software has to be tested for bugs, user friendliness, and device compatibility. The banks nee
upgrade app software's every now and then.

DIGITAL BANKING IN RURAL INDIA

Digital banking- development of IT has contributed to digital measures in rural India. Digitaliza
of banking services has managed to reach distant rural customers. This has helped in spreading
network of financial activities and services into nook and corner of the nation.

Digital banking awareness in rural India is helping the banks to spread geographically as wel
virtually. The awareness of paperless transactions has encouraged the rural customers to c
forward in opening accounts in banks and avail banking services. The government initiatives
make banking as an open forum for all have certainly increased the no of account holders in Ind
rural areas.

Question:	20-40 yrs(GEN Y)		40-60 yrs(GEN X)	
Which method of Banking do you prefer	Traditional-24%	Modern-76%	Traditional-33%	Modern-83%
Are you satisfied with the customer services provided by Banks	Yes-56%	No-44%	Yes- 75%	No -25%
Do you prefer Private Banks or Government Banks	Private-52%	Government-48%	Private- 66.66%	Government-44.44%
Is Online Banking accessible	Yes -92%	No -8%	Yes -91.6%	No -8.4%
aware of the risk involved in internet banking	Yes- 88%	No -12%	Yes -75%	No- 25%

FINDINGS:

1. Most of the Generation X and Generation Y prefer Modern method of Banking as it is easy and convenient compared to the traditional method.

2. Gen X is more satisfied with the customer service at private banks compared to Gen Y, the main reason being Gen X have spent most of the time in Traditional method of Banking or state run or government run banks.

3. There is not much difference in the preference of Private Banks or Government banks as government banks also are providing the similar service at lesser cost. Plus the private banks do not have a great foothold in the rural areas.

4. A lot of miscommunication exists between the consumer and the way the banks are run both private and government/state run.

5. The younger generation is more aware of internet banking services whereas the traditional bankers are yet to understand and use its potential.

6. More effort is needed to educate the people of India about the digital banking systems

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SUSTAINABLE DEVELOPMENT IN BANKING

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Abstract:

The economic growth of Banking in an organized principle for the development and to meet their objectives on the role of commercial and investment banking

In the current scenario, banks are more focused on sustainability of commercialization, investments and innovative banking practices, In globalized structure of economy, industries are exposed to stringent environmental policies and so Green banking is been defined as one of the major tool for sustainable development of banking sector.

The main purpose of the paper is to address the challenges faced by banking sector and opportunities created to development of banking industry and also to its customer/ general public and other main purpose are to give a dissertation to options available for sustainable development

Key Words:

Sustainable development of banking, green banking, challenges, economic growth, government policies

Introduction:

Sustainable development in banking is an integrated activity which implements in achieving economic growth, where in it continuous its functions thereafter the use of current resources provided for future necessities and it is the process of meeting the needs for current day situation.

The banking industry has an important role in the development of economy; it helps in being sustainable in the nation where it is obvious. Sustainable development in Banking also provides an increase in environmental protection.

The important significance in sustainable development is Green Banking it is the Umbrella term of referencing the practices and guidelines that makes bank economic, environment and social conscious, it helps in diverging the banking activities and processes to be used in Information Technology. So Banks are attempting to be eco-friendly and social conscious which gives way to ethical aspects of business.

Sustainable development in Banking is the growth in banking industry with the gain and retain of customers with the Information Technology as the Technology grows with regards to environmental protection and social aspects to the objectives of meeting the needs of the present resources without compromising the future generation to meet their own needs.

METHODOLOGY OF THE STUDY

The Present study is mainly based in secondary data. The data relevant to this research have been collected from the journals, Reports.

OBJECTIVES

- To understand the challenges faced by the Banking sector in sustainable development
- To explain various measures to meet the needs of sustainable development in banking.
- To understand the need and importance of Green Banking

Principles of Sustainable development in Banking:

1. Setting up goal as a global benchmark for sustainable banking
2. Driving aspiration by analyzing signatory banks to set goals for, and reports to be prepared on to the contribution towards National and International social , environmental and economic targets
3. Ensures accurate accountability and transparency on banking transactions
4. Meeting the challenges faced by the banking industry to play a leading role in creation of more sustainability in future

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CHALLENGES FACED IN SUSTAINABLE DEVELOPMENT IN BANKING

To address the progress, the Indian Banking sector has been facing en number of challenges through all time.

1. ISSUE OF MONETARY TRANSMISSION:

Obstacle faced in monetary transmission which the cost of funds, generally deposit rates, remains inflexible, inflation-linked deposit and lending rates will make finite difference .Upon the reflection of monetary transmission reflects on the objectives of lending rate deregulation has been price discovery by market forces. In case of the adverse effect regulatory intervention in market disciplinary, due to the credit market imperfections RBI guidelines are been revising on lending loans rates.

Monetary transmission has long and variable lags due to imperfect market and any innovative ideas to process both asset prices and general economic conditions are affected as a result of monetary policy decisions

2. NON –PERFORMING ASSET :

In recent time Non-Performing Asset has become a barrier for banking institutions which is impacting credit honorary of banks. Currently its 2.36% of the total loans are cumulated on Net Non-Performing Assets of banks. According to International Monetary Fund (IMF) around 37% of total debt in India is under risk.

The policy makers were been alarmed by the economic survey 2015-2016 recorded the slowdown in balance sheet growth in the consecutive years profit reduction.

India's big bad loan problem with highest Non-Performing Assets:

Sl.No.	Banks	Increase in rise of NPA's
1.	India Overseas Bank	↑ 23.39%
2.	IDBI Bank	↑ 21.25%
3.	Central Bank	↑ 17.81%
4.	Bank of India	↑ 13.22%
5.	Punjab National Bank	↑ 12.53%
6.	Oriental Bank	↑ 13.73%
7.	Dena Bank	↑ 16.27%
8.	Canara Bank	↑ 9.63%

3. CRISIS MANAGEMENT:

The basic causes of banking crisis are poor asset management quality, bad management, negative earning, swindling liquidity and capital inadequacy

Various factors are responsible for this crisis management few factors are :

- Poor selection of risk-loan and lending beyond borrowers
- Over –extension in allotting the credit facilities to outsiders
- lack of supervision and compromise in principles of credit policy
- lack of technical competence, administrative ability
- compliance with banking regulations
- debts and succession
- depositors greed and ignorance, supervisory authorities

4. CORRUPTION AND SICKNESS :

The major issues face in sustainable development in banking is corruption and sickness.GOI or RBI must understand the real dimension of sickness, unintended consequences of growing sickness on the others sectors also to be survival of banks and root causes of the sickness.

The bankers or people who are responsible and staffs assigned with the respective duties of framing right policies, executing the policy in right accordance and regulating and monitoring banks in order to prevent and mitigate risks failed to provide desired safety to banks.

VARIOUS MEASURES TO FACE THE NEEDS OF SUSTAINABLE DEVELOPMENT IN BANKING

1. POLICY INITIATIVES:

- The banking regulation act which authorizes RBI to issue the directions to initiate insolvency resolution process to recover bad loans as banks have more 2.36% of NPA loan under the insolvency and Bankruptcy code 2016.
- Under the banking regulation act 2017, the RBI also issued directions for resolution of stressed assets. Stressed assets are combination of NPA's, restructured loans and written off assets.
- The banking regulation act 2017 also initiated committee to advise banks and applicability to SBI
- The banking laws (2011) under this the act in order to help banking companies raise capital for expansion of banking business, which initiated in cancelling ₹ 3000cr on amount of authorized capital nationalized banks must be holded, approval of the increase or decrease to be taken by from Central Government and RBI and this amendment also added another 2 instruments of bonus shares and right issue of shares.
- The banking laws (2011) act also made few changes in voting rights of the shareholders, etc

2. ECONOMIC GROWTH :

- The sustainable development in banking plays an important role in growth of economy like accepting the deposits/savings of individuals, lend the same required end in turn receiving a sum of amount as interest which benefits the Bank as well its customers
- Economic growth in sustainable banking also helps in provides loans to manufacturing industries to meet the needs of the industry for purchase and also to maintain working capital, Manufacturing industries are carrying out more 30% of our GDP to our nation.
- Important development is initiating in capital formation through introducing shares and debentures and other financial instruments like securities, bonds , Bills etc
- Banking sectors are also increased their sustainable development through internal and international trading by giving option of credit facilities by an important role as giving surety or guarantees to their customers for their trades

3. USAGE OF TECHNOLOGY

- E-banking :it is the user friendly application to meet the customers expectation , banking sector in sustainable development have also offered services of electronic banking to the customers use of Electronic Data interchange(EDI) software transmit business transaction in computer or mobile.
- RBI has started with transaction to be moved on to digitalization completely paper free following this even SBI and other banks initiated to digitalize their transactions
- Use of electronic payments to increase the customers to use of mobile banking anywhere and everywhere
- Plastic money: this is option of Credit cards or smarts cards are been provided with the specified limit of money withdrawal from ATM's and Online payments with encrypted data to make banks clients or customers easy transaction.
- Signature retrieval facilities: these facilities reduce the risk of fraudulent activities which protects the customers being victim.

4. GLOBALIZATION:

- The free movement of goods, services and capital throughout the world globalization opens up the gate to trade internationally.
- Globalization in sustainable development in banking decoupling of space and time , due to this globalization all other institutions like the nation, state, family, work ,services , trade , leisure, culture, knowledge etc also were simultaneously changing throughout the world making is single unit while making decisions
- Rapid revolution of globalization in banking sector also increased sustainable development through convergence of computer and communication technologies such as internet, intranet, phones etc and arrival of foreign and private banks helped in getting sophisticated technology –based services forced Indian banks also use the similar software's , technologies for the growth of banking
- Customized banking products like Investment advisory services, photo credit cards cash management services, portfolio services, etc were made boon to the Sustainable development in banking industry.

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IVERSAL BANKING SYSTEM:

emergence of Universal banking system from Narrow banking came front in Indian Context as rent with the committee named Narashimham Committee (1998) and other committee Khan mittee with the suggestions on consolidation of banking industry through mergers and egration of financial activities.

Increases in profitable diversions by diversifying the activities in merging similar facilities to one tivity in relevant to reduce the costs of performing.

Economies of scales: the main scope of Universal banking results in greater efficiency in form of wer cost, higher output and gets better products. many banks including RBI are in favor of niversal banking which enables banks to explicit

Optimum utilization of resources.: as the universal banking systems collects the data of its clients worldwide helps in understanding the risk characteristics of the clients and helps in risk and returns involved in portfolios of Mutual funds, diversifiable and non-diversifiable risk analysis etc.

Acts as marketer on the foundation of a Brand name: Universal banks also acts as a shops of selling for selling financial products like Insurance, Mutual Funds etc without investing much on marketing or branding. This also saves lot of transactions costs ,it benefits for the bank as well as its customers

Sustainable management trends and opportunities in banking sector:

1. Materialistic Assessments are being conducted in order to prioritize banking industry roles in integral engagement and sustainability strategy development.
2. Gradually, banks are communicating on major long tenure projects for sustainable financial commitments , which extends their services in creating the bridge between products and services, however transactions to be made more transparent.
3. Banking industry can also have an opportunity to establish and initiate in communication of to focus on targets aligned to their identified material issues.
4. Governance structure also continuous to play a significant role in engaging employs and driving in Sustainable development in Banking.

GREEN BANKING

Green banking operations are like normal banking. The main objective of green banking is to take considerations of social and environmental factors in sustainable development in banking industry, it is also called as Ethical Banking, basic objective is to prevent the environment and to be controlled by the respective authorities what tradition bank does.

Other names of Green Banking are Green investment bank, clean energy finance authorities or Clean energy Finance Corporation.

Service offered in Green Banking:

1. Green Mortgages and Loans: offering loans to the business that which considers to be environmentally sustainable
2. Green Credit Card: Credit Cards provided using biodegradable cards materials in order t promote paperless banking
3. Mobile or Online Banking: Online Based accounting or transactions it clears way for travel free
4. Green Savings: this happens to make donations or savings basis done by customers

Green banking initiatives in India

Government of India issued certain guidelines and instruction to Banks on Green banking:

1. Use of Electric Payment to be increased
2. Use of core banking solution to be increased
3. Use of Video conferencing
4. Making centralized Payment system like hub

Banks Initiated with Green Banking

ICICI Bank

Indusland bank

Punjab National Bank

Axis

SBI

Bank of Baroda

Canara Bank etc

Advantages of Green banking

1. Reduction on paper work
2. Providing Awareness to business people about the environment protection using green banking.
3. Provides necessary loans at comparatively less rate of interest
4. Lending on standard of environment

Disadvantages of Green Banking

1. Difficulty in operation in navigating usage of software requires training
2. No proper customer care is available to contact with the bank employees
3. Risk on security while transaction in Online basis though it is well encrypted it's not free from Hackers
4. Technical break is one of the major disadvantage which night by risk once account is closed

CONCLUSIONS

To conclude on to the topic **sustainable development in banking** is not an easy task as it faces en-numbers challenges and issues for being sustained in a developing country like India, throughout the research there were lot of learning experience in order to understand the concept of sustainable development and in banking sustainable development. The main objective of this paper is to address the challenges and issues faced are listed few here like NPA's, Issue in money transition, corruption and many more like infrastructure, IT, Human resources etc while extending the banking facilities to unbanked and under banked centers, specially rural areas and also to ensure the increased flow of assistance to the neglected sectors. Though the challenges faced still banks are taking a greater side of risk in sustainable development in banking like providing transparency in accountability of clients accounts and their resources of savings invested , Mutual funds, insurances , global financing , universal banking system , net banking/online banking etc

On the contrary of the challenges and issues faced by banking in sustainable development, a greater success step of GREEN BANKING concept is introduced in order to be protective and also smart way of thinking towards future sustainability, Green Banking in sustainable development in banking industry has put forth the economic growth taking into account the social and environmental impacts and the primary objective of the Green Banking to protect and preserve environment to be achieved.

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LITERATURE REVIEW

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Indian Banks Association.(2014, 03 3).Green Banking Innovations; Indian Banks' Association. Retrieved from 4. The Indian Banker: http://www.theindianbanker.co.in/ html/sto_5.htm Sahitya et al. (2014) attempted to understand and appreciate the importance of green initiatives for the attainment of goals of sustainable banking and determine the various attempts that had been made by the top public and private sector banks in India. The methodology consisted of a case study based approach of secondary sources. The findings were that the banks had taken on the green initiatives. The Private Banks are as much involved in the green banking approach as the Public Sector Banks. All the banks are making efforts to make banking paperless. This had been fully supported by technology in terms of electronic fund transfers, ATMs, internet and mobile banking. Banks are in search of alternative energy sources for running facilities like ATM"s etc.

Sahitya, Lalwani & Prateek Bedi, "Sustainability in Indian Banking Industry", International Journal of Commerce, Business and Management, Vol. 3(1).

Rajesh &Dileep (2014) studied the role of banks in sustainable economic development through Green Banking activities. The study was based on secondary data obtained from the reports of various Banks, various seminars and workshop information and other relative information published on the banks and other internet sites. The study concluded that Banks also contribute to ecological footprint directly and indirectly through investment/lending in their customer enterprises. Green banking can be an avenue to reduce pollution and save the environment aiding sustainable economic growth. Before making the decision to finance a project, banks must see its environmental risks and ensure the project players have environmental safety measures in their plans, including recycling facilities or smoke and gas arresting units.

OBJECTIVE OF THE STUDY

- To study the concept of 'Green Bank'
- To highlight & impart education to attain sustainable development through green banking.
- To highlight the products in green banking.
- To analyze challenges and opportunities in Green Banking.

RESEARCH METHODOLOGY

The present empirical study has incorporated by collection of both primary and secondary data for the in-depth investigation. The study mainly includes literature review from secondary data. Secondary data includes research papers, sustainability reports from different banks and environmental organizations, published documents of Indian bank and consultation with bankers, reports of the respective banks and other relative information published on the banks and other internet sites. The study also includes the primary data collection through personal visit to the bank and in-depth interviews of the branch managers.

MEANING:

Green banking refers to the banking business conducted in such areas and in such a manner that helps the overall reduction of external carbon emission and internal carbon footprint. To aid the reduction of external carbon emission, banks should finance green technology and pollution reducing projects. Green banking means promoting environment friendly practices and reducing carbon footprint from banking activities. Green banking helps to create effective Eco Friendly Loans. Green is becoming a symbol of Eco consciousness in the world.

DEFINITION:

The **Indian Banks Association** defines it as "Green Bank functions like a normal bank along with considering the social and environmental factors for the protection of the environment and conserve natural resources".

According to RBI (IDRBT, 2013), green banking is to make internal bank processes, physical infrastructure and Information Technology effective towards environment by reducing its negative impact on the environment to the minimum level.

GREEN BANKING STRATERGIES

- Engage with the key stakeholders and create awareness of environmental issues and their impact on the economy, the environment, and the society. Also, explain to them the business and environmental value and the necessity of greening the bank processes, products, and services.
- Conduct energy audits and review equipments purchases and disposal policies and practices. Assess IT's environmental and cost impact and identify areas to be "greened"
- Set SMART (Specific, Measurable, Attainable, Realistic, and Timely) green goals as the internal targets to reduce your carbon footprint along with timelines. Develop criteria for measuring progress towards the goals.
- Develop and implement a green policy that aims to achieve higher utilization of systems while reducing energy use and lessening their environmental impact.
- Encourage, motivate, and energize the workforce to follow the green path and to come up with and implement their own ideas. In addition, also encourage clients, suppliers, and outsourcers to adopt green practices.
- Monitor the progress regularly; watch industry trends and new developments. Revise the green policy as required.

GREEN BANKING PRODUCTS

(i) Green Deposits: Banks offer higher rates on commercial deposits, money market accounts, checking accounts and savings account if customers opt to conduct their banking activities online.

(ii) Green Mortgages and Loans: Banks offer green mortgage with better rates or terms for energy efficient houses. Some green mortgages allow home buyers to add as much as an additional 15 percent of the price of their house into loans for upgrades including energy-efficient windows, solar panels, geothermal heating or water heaters. The savings in monthly energy bills can offset the higher monthly mortgage payments and save money in the long run.

(iii) Green Credit Cards: A green credit card allows cardholders to earn rewards or points which can be redeemed for contributions to eco-friendly charitable organizations. These cards offer an excellent incentive for consumers to use their green card for their expensive purchases.

(iv) Green Reward Checking Accounts: A bank product called reward checking accounts pays a bonus rate for customers who go green. Customers can earn higher checking account rates if they meet monthly requirements that might include receiving electronic statements, paying bills online or using a debit or check card. With this banking product, higher rates and eco-friendly living go hand-in-hand.

(v) Mobile Banking: Mobile banking is tricky. On the one hand, it is great to have the ability to check balances, transfer funds or pay bills from mobile phone. One the other hand, it saves time and energy of the customers. It also helps in reducing use of energy and paper of the bank. Most of the Indian banks have introduced this paper-less facility. less energy, and less expenditure of natural resources from banking activities. Customers can save money by avoiding late payments of fees and save time by avoiding standing to queues and paying the bills from home online.

(vi) Save Paper: Bank should purchase recycled paper products with the highest post-consumer waste content possible. This includes monthly statements, brochures, ATM receipts, annual reports, newsletters, copy paper, envelopes etc. Whenever available, vegetable-based inks should be used instead of less environmentally friendly oil-based inks.

(vii) Use of Solar and Wind Energy: Using solar and wind energy is one of the noble cause for going green. State Bank of India (SBI) has become the first bank in the country to venture into generation of green power by installing windmills for captive use. As part of its green banking initiative, SBI has installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat.

Green Banking Initiatives by Indian Banks:

Banks include both public and private sector for Green banking initiatives like

PUBLIC SECTOR BANKS

1. CANARA BANK

➢ As a part of green banking initiative, the bank had adopted environmental friendly measures such as mobile banking, internet banking, tele-banking, solar powered biometric operations etc.
➢ Canara bank had set up e-lounges for high-tech banking facilities like internet banking, pass book printing kiosk, ATM, online trading, tele-banking and cash/cheque acceptor.
➢ In terms of Lending policy, they are giving due preference and weightage to projects which can earn carbon credits like solar energy projects, windmills, etc.
➢ The bank is also not extending any finance to the units which are producing ozone depletion substances such as cholorofluoro carbon, carbon tetrachloride, aerosol products, solvents etc.

PRIVATE SECTOR BANK:

1. KOTAK MAHINDRA BANK:

➢ The rain water harvesting tank has been installed in the premises and also used oil generated from a diesel generator is disposed off through vendors approved by Pollution Control Board.
➢ The organization had established the 'Social, Environmental Management System Plan' (SEMSP) to evaluate the environmental and social risk of borrowers which is based on an IFC sustainable framework and performance standards.

➢ **CHALLENGES:**

- **These banks are still startups:** Apparently, it takes 3 to 4 years for a typical bank to start making money. Many green banks in business today are very new and are still in startup mode. It does not help that these banks are trying to get their footing during a recession.
- **Banks are "specialized":** Again, while the main goal of a green bank is to do good by supporting those who are taking care of the environment, the question here is just how much money is there in these businesses and in the eco-friendly industry? Saving the environment does not necessarily equate to "making a profit". Hopefully though, this premise is proven wrong in this case and that green banks prove that they can survive, even as they face restrictive requirements for doing business.
- **Operating expenses and costs are higher:** Green banks require specialized talent, skills and expertise as well, due to the kind of customers they are servicing. Employees, such as loan officers, need to have additional background and experience in dealing with green businesses and consumers. Plus, giving breaks to such clients via discounted loan rates can eat at their profit margins.
- **Reputation risk:** In all likelihood, due to growing awareness about environment safety, banking institutions are more prone to lose their reputations if they are involved in big projects, which are viewed as socially and environmentally damaging.
- Green banks were at start up mode and if they were restricting their business to a smaller pool of customers, then their profits will be impacted.
- **Inadequate Savings:** The aim of going green in many cases, such as building an energy-efficient home or purchasing a hybrid vehicle is to reduce environmental impact while saving money in the long term. Green buildings and vehicles tend to use less energy, so initial costs can often be recouped over time through energy savings.
- **Competition:** In the business world, going green can be an attractive goal to gain goodwill and consumer support, but unless green improvements are economically viable, it can put a business at a competitive disadvantage:

➢ **OPPORTUNITIES:**

- **BSE Greenex**: Bombay Stock Exchange has launched its carbon-efficient equity index called 'BSE-GREENEX' which measures the performance of the companies in context to their Carbon Emissions (Shree, 2012). The index will target those investors who are socially-aware and concerned with the environment and are also willing to pay a premium for green investments in companies to get better return.

- **Competitive Edge:** It helps the banks to get a competitive edge over their competitors through innovation in their products and services.

- Make regular adjustments and updates of the Green Banking Policies.
- Increase the exposure of Green Finance to new projects.

The Management committee should take necessary steps to develop new products or services with environmental features And finally the bank should arrange more training and workshop programs to encourage the employees to follow and foster the Green Banking Concept in their day to day banking affairs

- Construct a Website and Spread the News and Educate through the Bank's Intranet and Public Website.
- Participate in Events and Set up outlets to promote green business and also communicate through Press.

> **Limitations**

- The Management committee should take necessary steps to develop new products or services with environmental features as Social Responsibility services.
- And finally the bank should arrange more training and workshop programs to encourage the employees to follow and foster the Green Banking Concept in their day to day banking affairs
- Construct a Website and Spread the News.
- Educate through the Bank's Intranet and Public
- Participate in Events
- Set up outlets to promote green business and also communicate through Press and Leaflets.
- Carbon footprint reduction by energy consciousness and mass transportation.
- Impart education through E- learning Programmes.
- Making it a part of annual environment report.

Development made by public sector banks towards green Banking

SBI has launched Green Chanel Counter, Suzlon Energy Limited and generate green power by installing 10 windmills; Bank encourages shareholders to receive annual reports of the bank in electronic form, largest deployer of solar ATMs and saving more than 2000 tons of CO_2 per year

ATMs

Recent Reforms Towards Green banking:

Green banking is comparatively new development in the financial world. Green banking is linked with environmental protection and its sustainable development. Any or for every task or projects initiated requires funds, the only institution which provides loan facilities to initiate projects are banks with reasonable interest rate. As Banks and financial institution are in financial backgrounds they can play an important role for protecting environmental degradation by financing environmental projects and for developing environmental products and services. Through the research public sector banks has shown a better performance in green banking initiatives which leads to a conclusion that public banks are owned and managed by government sectors the funding process for such environmental projects are much concentrated and the development towards green banking is much effective by public sectors.

CONCLUSION

Green banking refers to the initiatives taken by the banks to encourage environment-friendly investment. Green banking as a concept is a proactive and smart way of thinking towards future sustainability. In the emerging economies, it is very important for the banks to be pro-active and accelerate the rate of the growth of the economy. As there is a continuous change in the environmental factors leading the banks face intense competition in the global market, the banks need to adhere to the stringent public policies and strict law suits. Banks need to apply morality of sustainability and responsibility to their business model, strategy formulation for products and services, operations and their financing activities and become stronger. By adopting the environmental factors in their lending activities, banks can recover the return from their investments and make the polluting industries become environment-friendly.

Green banking is always a boon to the growing society, aiming at been socially responsible towards a betterment of the society and country. It is important that Indian Banks should realize their responsibilities towards the environment as well as the society in order to compete and survive in the global market. . Green banking is linked with environmental protection and its sustainable development. Though it faces challenges in the growing economy, still it has various opportunities in making the society a blossom environment.

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Multiresolution Gray-Scale And Rotation Invariant Feature Extraction For An Object Recognition System In A Cluttered Scene

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Abstract

The local image features used in an object recognition system should be invariant to image scaling, translation, rotation and also to the illumination changes on the image. Thus, these features should be efficiently detected through a staged filtering approach which can identify the stable points in a scale space. In this paper we discuss the application of SIFT in feature extraction which is the fundamental concept in object recognition. An important aspect of this approach is that it generates large numbers of features that densely cover the image over the full range of scales and locations. The key points are detected using a cascade filtering approach which enables the correct match for a key point to be selected from a large database of other key points. With visual reference maps that consists of more or less organized images there is a compromise between the density of reference data stored and the capacity to identify, when it is not exactly in the same position as one of the reference views. Thus, we have also proposed SURF to improve the performance of appearance-based localization methods that perform image retrieval in large data sets.

Keywords: keypoints, feature extraction, PCA-SIFT, SIFT, SURF

I. INTRODUCTION

Images taken from different viewpoints may suffer transformations such as noise, rotation, scaling, translation, which leads to the two images of the same scent to appear different. Thus it is challenging task in vision applications to find similarity correspondences between two images of the same scene or object. To provide reliable matching between different viewpoints of the same image, extraction of prominent features is required. Feature detection occurs within an image and seeks to describe only those parts of that image where we can get unique feature descriptors. During the training session, the feature descriptors are extracted from sample images and stored. In classification, feature descriptors of an image will be matched with all trained image features of the trained images giving maximum correspondence and the best match.

Feature detection algorithms [14][8] are proposed in the literature to compute reliable descriptors [7][2] for image matching [5][4]. SIFT and SURF descriptors [3] are concluded as the best in their performance and have now been used in many applications[15]. A thorough comparison of many feature descriptor algorithms is reported in [9] which concluded that overall SIFT outperforms other detectors. SURF was not included in the comparisons[10] and although it has been claimed to be superior to SIFT[6] by the proposers of SURF [5].

II. METHODS

A. SIFT

Scale Invariant Feature Transform (SIFT) features are features extracted from images to help in reliable matching between different views of the same object [16]. The extracted features are invariant to scale and orientation, and are highly distinctive of the image. They are extracted in four steps. The first step computes the locations of potential interest points in the image by detecting the maxima and minima of a set of Difference of Gaussian (DoG) filters applied at different scales all over the image. Then, these locations are refined by discarding points of low contrast. An orientation is then assigned to each key point based on local image features. Finally, a

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हिंदी साहित्य और सिनेमा

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साहित्य और सिनेमा दोनों विश्व की महान कलाएँ हैं, जहाँ साहित्य विश्व की प्राचीनतम कलाओं में से एक है वहीं सिनेमा को नवीनतम कला का दर्जा प्राप्त है। साहित्य जहाँ अपने प्रभाव के लिए लिखित शब्द पर निर्भर है वहीं सिनेमा का समस्त प्रभाव उसके बिंबों में निहित है। दोनों कलाएँ एक-दूसरे से समानता रखती हुई भी बहुत भिन्न हैं। साहित्य और सिनेमा दोनों ही आख्यानपरक कलाएँ हैं, क्योंकि दोनों ही कोई-न-कोई कथा तत्त्व को लेकर चलती हैं। जहाँ साहित्य में सारी सर्जनात्मकता भाषा के मौलिक प्रयोग पर आश्रित है वहीं सिनेमा का सौंदर्य और उसकी सर्जनात्मकता चाक्षुष बिंबों की एकांविति पर निर्भर है। सिनेमा साहित्य को और उसके विमर्श को प्रस्तुत करने का एक प्रभावी माध्यम है। साहित्य ने अपने लिए एक सशक्त स्थान बना तो लिया है पर सिनेमा के सहयोग से साहित्य और भी प्रभावित तथा लोकप्रिय होता जा रहा है।

साहित्य और सिनेमा का संबंध

विश्व-साहित्य इस तथ्य का गवाह है कि साहित्य के प्रारंभ में नाटक का उद्‌भव ही उसकी नाट्य प्रस्तुति के लिए हुआ था। अभिनय प्रदर्शन के निमित ही नाटक रचने की आवश्यकता मनुष्य को हुई थी। नाटक जनता की भावनाओं से संबद्ध है, इसलिए जनता की वस्तु है। किसी ग्रंथ में पठित दृश्य अथवा समाचार-पत्र की घटना मानव-चित्र को उतना प्रभावित नहीं करती, जितना रंगमंच पर देखे गए वर्णन दृश्य करती है। सिनेमा और साहित्य दो पृथक विधाएँ हैं लेकिन दोनों का पारस्परिक संबंध बहुत गहरा है। जब कहानी पर आधारित सिनेमा बनने की शुरुआत हुई तो इनका आधार साहित्य ही बना। हिंदी साहित्य का इतिहास 700 ई. में शुरू हुआ था। अतः हज़ार से ज्यादा वर्षों का इतिहास है। हिंदी सिनेमा ने

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अनुक्रम

भूमंडलीकरण और हिंदी साहित्य एवं अन्य विमर्श

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1. भूमंडलीकरण : भूमंडलीकरण का इतिहास बहुत पुराना है। इसका प्रारंभ सुमेर और सिंधु घाटी की सभ्यताओं के साथ हुआ जब दोनों देश के बीच व्यापार होता था। वैश्वीकरण का स्वर्णिम युग इस्लाम काल था। इसी काल के दौरान दुनिया के तमाम देशों में वस्तुओं का आदान-प्रदान प्रारंभ हुआ, जो मनुष्य जीवन के लिए अपरिहार्य था।

विश्व व्याप्त है–भारत को सोने की चिड़िया कहा जाता था। क्योंकि यहाँ दर्जनों नगर सुंदर, सुशोभित और संपन्न थे। दिल्ली का लालकिला और आगरा के ताजमहल इसका साक्ष्य है। प्राचीन काल से ही भारत अपने ज्ञान-विज्ञान, अध्ययन, धन-वैभव, विद्या, कला-कौशल में अद्वितीय रहा है। सैकड़ों वर्षो पहले भी संसार के सभी मंडियों और बाजारों में भारत का उत्पाद आकर्षण का केंद्र था। हमारे देश की सुख-समृद्धि की कीर्ति सात समंदर पार भी हुआ करता था। भारत की इस वैभव और संपन्नता से आकृष्ट विदेशियों का आगमन सोलहवीं शताब्दी से ही व्यापार करने की इच्छा से भारत में आना-जाना प्रारंभ हो गया था।

भारत और इन विदेशियों के साथ जो व्यापार संबंध बना उससे वैश्वीकरण में गुणात्मक परिवर्तन आया। जिसे वास्तविक या मौलिक भूमंडलीकरण कहा गया। प्रथम एवं द्वितीय विश्वयुद्धों के कारण विश्व की जर्जर अर्थव्यवस्था को सुदृढ़ करने के लिए विश्व के समृद्ध देशों ने अंतरराष्ट्रीय व्यापार को सुदृढ़ करने के लिए कूटनीतिक प्रयास किए। पूँजी के अंतरराष्ट्रीय विनिमय को सरल और सुगम बनाया जिसे उदारीकरण का नाम दिया गया। इस प्रक्रिया में अंतरराष्ट्रीय मुद्राकोष, विश्व व्यापार संगठन और विश्व बैंक ने अहम् भूमिका निभाई।

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A STUDY ON ETHICAL DILEMMAS IN HR PRACTICE

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ABSTRACT

Human resource management (HRM) is currently undergoing rapid professionalization. One area, which has not been fully exar from a scholarly nor practitioner perspective, is that of ethical dilemmas. Ethical dilemmas in HRM can be seen as multifa involving personal, professional, and organizational considerations.

Ethical problems arise almost continually in human resource management. Human resources are people, and when people some harm or loss for which they are not themselves responsible, as in a plant closing or corporate re-structuring, then e analysis is needed in addition to the more common financial, legal, and behavioral forms of reasoning. Ethical analysis involv evaluation of the impacts of the proposed managerial action upon the members of the organization and the members of the so and then justification of those impacts according to one of the first principles or essential values of normative philosophy. N these first principles or essential values are adequate by themselves to justify a decision in an ethical dilemma, but taken togethe do help in arriving at a decision that can be considered to be "right" and "proper" and "just".

Keywords: ethical dilemmas, ethical analysis, ethical issues

INTRODUCTION:

One of the crucial words used in this paper, comes from the Greek word ethikos which means character or custom. Attempts to this notion and define what is right and wrong could be dated up to epoch of Socrates and Platon4. "Ethics refers to a syst moral principles – a sense of right and wrong, and goodness and badness of actions and the motives and consequ of these actions." (Suresh 2011, p. 367) Generally accepted view of ethics believes that ethical behavior is above be required by the law (Sims 2003). De George (1990 in McEwan 2001) describes three main ways of ethical theories – descr normative and meta-ethical. Descriptive ethics comparing and contrasting different systems of morals, individuals of col values or ethical codes. In terms of business environment, it can also compare corporate social responsibility, business ethi corporate governance and their impact on relationship with organizational behavior, business administration and manag Normative ethics aims to achieve consistent and coherent set of values and beliefs and identifies principle from which relevant and beliefs are derived and also provides moral system consisting of specific norms. Meta-ethics examines the meaning of mora for example bad and good and tries to explore the validity or inconsistencies in statements of principles of normative and desc ethics.

The dilemma relates to information technology: A firm's need for information particularly about employees while on job ma odds with the employee's privacy. Close circuit cameras, tapping the phones, reading the computer files of employees etc. bre privacy of employees. The ethical dilemma relates to Whistle Blowing: Whistle blowing refers to a public disclosure by fo current employees of any illegal, immoral or illegitimate practices involving their employers. Generally, employees are not e to speak against their employers, because their first loyalty in towards the organization for which they work. However, if the si is such that some act of the organization can cause considerable harm to the society, it may become obligatory to obey the W The HR manager is in the dilemma how to solve this issue between the advocates and defenders of whistle blowing.

STATEMENT OF THE PROBLEM

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A Hamiltonian Approach for a Traveling Salesman

Shyamala Venkatraman

Abstract— In this modern era, various applications of Hamiltonian's graph have come into existence and serve as very good measures over a large class of optimization problems. The Travelling Salesman Problem (TSP) is a problem in combinatorial optimization studied in operation research and theoretical computer science. Given a list of cities and their pair wise distances, the task is to find a shortest possible tour that visits each city exactly once. This paper analyzes various types of algorithms such as The nearest Neighbor Algorithm to find a (reasonably good) Hamiltonian cycle, Lower Bound Algorithm to find a lower bound for a Hamiltonian cycle , Tour Improvement Algorithm to look for possible improvement in the tour etc. In this research paper, we have taken a locality in Meghalaya state which is under development, having lesser main resources viz. roadways, telecome links etc.

Index Terms— Branch and Bound Algorithm, Brute-force Algorithm, Hamiltonian's Graph, Held-Karp Algorithm, Lower Bound Algorithm, Metric Approximation Algorithm, The Nearest Neighbor Algorithm, The Tour Improvement Algorithm.

1 Introduction

Hamiltonian circuit [2] in a connected graph is defined as A graph G [1] consists of two sets V and E, V is a finite non-empty set of vertices, E is a set of pair of vertices; these pairs are called edges. In an undirected graph the pair of vertices representing any edge is unordered. Thus, the pairs (v_1, v_2) and (v_2, v_1) represent the same edge. In a directed graph each edge is represented by a directed pair (v_1, v_2). v_1 is the tail and v_2 the head of the edge. Therefore (v_2, v_1) and (v_1, v_2) represent two different edges. A graph G is said to be connected [2] if there is at least one path between every pair of vertices in G. Otherwise, G is disconnected [2].

Hamiltonian circuit [2] in a connected graph is defined as a closed walk that traverses every vertex of G exactly once, except of course the starting vertex, at which the walk also terminates.

A circuit in a connected graph G is said to be Hamiltonian if it includes every vertex of G. Hence a Hamiltonian circuit in a graph of n vertices consists of exactly n edges.

Hamiltonian Path: If we remove any one edge from a Hamiltonian circuit, we are left with a path. This path is called a Hamiltonian path [2]. Clearly, a Hamiltonian path in a graph G traverses every vertex of G. The length of a Hamiltonian path (if it exists) in a connected graph of n vertices is n-1.

The Nearest Neighbor Algorithm: To find a (reasonably good) Hamiltonian cycle i.e. a closed trail containing every node of a graph.

Step1: Choose any starting node
Step2: Consider the arcs which join the node just chosen to nodes as yet not chosen. Pick the one with minimum weight and add it to the cycle.
Step3: Repeat step2 until all nodes have been chosen.
Step4: Then add the arc that joins the last chosen node to the first-chosen node.

The Lower Bound Algorithm: To find a lower bound for a travelling salesperson problem.

Step1: Pick any node and remove the two connecting arcs with least weight.
Step2: Find the minimum spanning tree for the other nodes using Prim's algorithm.
Step3: Add back in the two arcs removed previously.
Step4: The weight of the resulting graph (which may not be a cycle) is a lower bound i.e. any optimum solution must have at least this weight.

The Tour Improvement Algorithm: To look for possible improvement in a tour found by the nearest neighbor algoithm

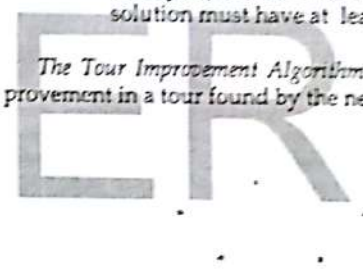


Fig. 1 Tour Improvement

Step1: In Fig. 1, number the nodes in the order of the tour: start at node 1
Step2: Consider just the part of the tour 1-2-3-4.
Step3: Swap the middle nodes to change the order to 1-3-2-4.
Step4: Compare the two and keep the order with the lowest weight.
Step5: Move on to node2 and repeat until each node has been the start node once

2 TRAVELLING SALESMAN'S PROBLEM

The Travelling Salesman's Problem [2] describes a salesman who must travel between N cities. He has to visit each city only once during his trip, and finishes where he was at first. Each city is connected to other close by cities or nodes, by airplanes, or by road or railway. Each of those links between the cities has one or more weights (or the cost) attached.

मीडिया का सामाजिक कर्तव्य

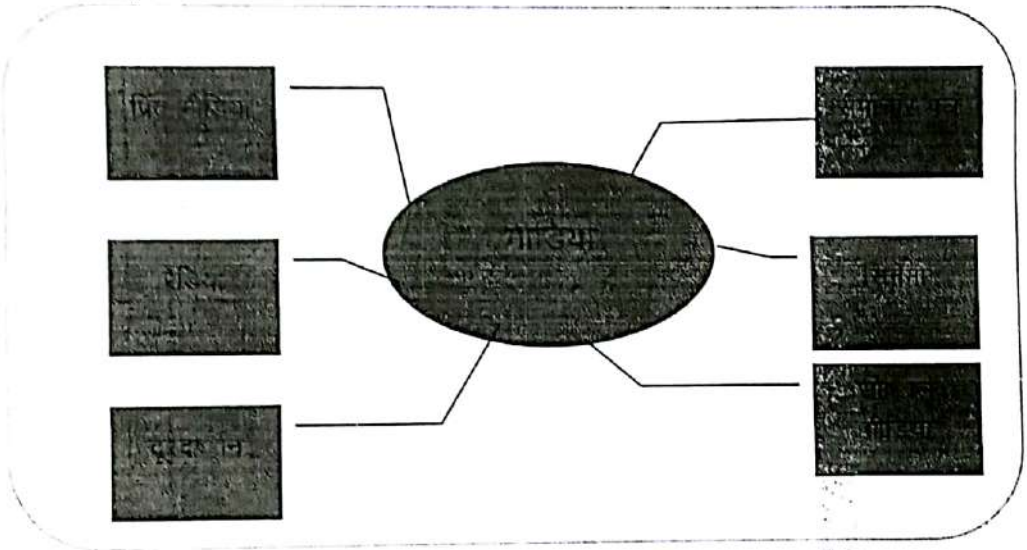
इंदुमति
सेंट अन्ना कॉलेज
केजीएफ

मीडिया

आधुनिक युग में मानव ने समय की तीव्र गति पर विजय प्राप्त कर ली है इसके फलस्वरूप उसने विश्व केन्द्रों की भौगोलिक दूरी को भी मिटा दिया है संपूर्ण विश्व आज एक छोटे से मुहल्ले के समान बन गया है बद्धिजीवियों के सक्रिया मन की उपज मीडिया है जो विज्ञान का एक अद्भुत देन है परंतु इसका संचालन पूर्णतः समाज व आम जनता पर निर्भर है यह व्यवस्था हमारे जीवन का अभिन्न अंग बन गया है मीडिया एक सामूहिक संचार उपकरण है जो विभिन्न रूपों में बड़ी संख्या के जनसमूह तक पहुंचने का एक माध्यम है जो टेलीविजन, रेडियो, सिनेमा, समाचार पत्र और सोशल मीडिया आदि से बनता है मीडिया अपने स्रोत के द्वारा सामान्य और विशिष्ट दोनो दशाको के सूचित अकारणा और याजनाओ को परिवर्तन करने का उपकरण माना जाता है

मीडिया के विभिन्न प्रकार

1 मद्रणयंत्र पुस्तक, हैंडबिल, समाचार पत्र, पत्रिकाएँ आदि
2 सिनेमा लगभग 1910 से 3 दूरदर्शन लगभग 1950 से
3 4 इंटरनेट लगभग 1990 से
4 मोबाइल फोन लगभग 2000 से
5 एल आर डी ई
6 बैंगलूरु



मानव सामाजिक प्राणी हैं और वह सदैव एक दूसरे से जुड़ा रहना चहता है और वह सदैव एक दूसरे से जुड़ा रहना चहता है यही वजह है कि आज मनुष्य के जीवन का अटूट अंग बन गया हैं जिस प्रकार दुनिया की घटनाओं की जानकारी समाचार पत्र, पत्रिकाओं, रेडियो, टेलीविजन व अन्य संचार माध्यमों से मिलती है एक कदम आगे बढ़कर अब टेक्नालोजी इतनी द्रुत गति से है कि ट्विटर, फेसबुक, वाट्सएप आदि के माध्यम

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आदर्श समाज के लिए घरेलू महिला का पात्र

इन्दुमति एस/कर्नाटक/भारत

समाज सभ्यता और संस्कृति का प्रतिबिम्बि है। समाज की महानतम विशेषता है अनेकता मे एकता। सार्वभौमिक आवश्यकताओं की पूर्ति समाज के अस्तित्वको अक्षुण्ण बनाए रखने के लिए अनिवार्य है। समाज मे स्त्री और पुरुष दोनों का समान महत्व है। समाज की उन्नति के लिए स्त्री और पुरुष का समान होना आवश्यक है। यदि किसी विषय मे पुरुष स्त्रियों पर शासन करता प्रतीत होता है तो दूसरे स्थान पर स्त्रियों की आज्ञाएँ अकाट्य होती है। परिवार के जीवन को सरल तथा सुचारू रूप से चलाने का कार्य मुख्यतया स्त्रियों को ही करना पड़ता है। जीवन की सार्थकता स्त्रियों की योग्यता पर निर्भर रहती है। आदर्श समाज के निर्माण में आदर्श गृहिणी का बहुत बड़ा योगदान है। किसी विव्दान कवि ने कहा है कि "गृहिणी गृहमित्याहु न गृहगृहमुक्यते" अर्थात गृहिणी से ही घर है बिना गृहिणी के घर को घर नहीं कहा जा सकता। गृहिणी गृहस्थ जीवन रूपी नौका की पतवार है, वह अपने बुध्दि-बल, चरित्र बल, अपनेत्यागमय जीवन से इस नौका को थपेडो और भवरों से बचाती हुई किनारे तक पहुचने का सफल प्रयास करती है। गृहस्थी की सुख शान्ति, आनंद और उत्थान इसके सबल कंधों पर आधारित रहते है। वह समाज और देश की भी कल्याणकारीणी होती है। देश के नागरिकों का सभ्य होना, यह सब आदर्श गृहिणी पर आधारित है। बच्चे के लिये शिक्षा, सभ्यता, अनुशासन, शिष्टता आदि सभी विषयों की प्राथमिक पाठशाला घर ही है। समाज और देश के उत्थान और भावी समृध्दि के लिये एक गृहिणी जितना उपकर कर सकती है, उतना कोई दूसरा व्यक्ति नहीं कर सकता। आत्मानिर्भर और स्वावलम्बित होकर वह गृहकार्यो को कुशलतापूर्वक निभाती है, जिससे गृहसदस्य ही नहीं वरन सारा वातावरण सुखदायक रहता है। मनुष्य का आदर्शगुण अपने माता-पिता के उत्तम प्रवृति का ही प्रभाव है खास तौर पर इस मे मुख्य भाग आदर्श गृहिणी का होता है। ऐसे आदर्श गृहिणी का चरित्र विशेषगुण से सम्पन्न है। संसार में ऐसे महापुरुष के प्रेरक और पथप्रदर्शक के श्रेय आदर्श गृहिणी को ही जाता है। सत्यभाषीणी धर्मप्राण पुतलीबाई के शुभ संस्कार का दृष्टिगोचर महात्माजी हैं। छत्रपति शिवाजी की माता जीजाबाई ने घर की प्राथमिक पाठशाला में जों शिक्षा दी वही जीवन के अंतिम क्षणों तक सबल बनकर उनके साथ रही।

प्राचीनकाल के इतिहास के पृष्ठभूमि मे महिलाओं की गौरवमयी कीर्ति से भरे पड़े है। जीवन के अनेक क्षेत्र अवसर ऐसे हिते थे जिनमे वे पति से भी आगे रहती थी। भारत में नारियों को उच्च स्थान प्राप्त था। गृहस्थाश्राम का सम्पूर्ण अस्तित्व नारी के बालिष्ठ कंधों पर आधारित था। वे केवल सन्तान की जन्म्दात्री एवं भोजनालय की प्रबन्धकारिणी के रूप में ही प्रतिष्ठित नहीं थी अपितु पुरुषों के समान ही उन्हें सामाजिक, राजनैतिक एवं धार्मिककृत्य बिना पत्नी के सहयोग के पूर्ण नहीं होता था। अपनी योग्यता,विव्दता और विवेकपूर्ण बुध्दि के बल से कैकेयी, द्रौपदी, सत्याभामा आदि ने युध्द व वनवासकाल मे अव्दित्तीय कौशल और सत्पतामर्श दिये था। गृहकार्य दक्षता मे मात्र न सीमित रहकर अन्य कार्यों में भी अपनी योगदान देते थे।

समाज में आदर्श गृहिणी के साथ अपने प्रतिभा के बल से आनेवाले संतती को एक प्रेरकपूर्ण मार्ग रचने में सार्थक हुए है। सुप्रसिध्द गायकी एम एस सुब्बलक्ष्मी आदर्श गृहिणी मात्र न रहकर अपने पति के मार्गदर्शन से संगीत जगत मे एक अप्रतिम स्थान किया है। रामकृष्ण परमहंस जैसे महात्मा के सहचरणी शारदा देवी कर्तव्यपरायण होकर पति के सन्यासत्व जीवन निभाने में सहयोग देकर अपने को सार्थक बनाया। प्रसिध्द राष्ट्र कवयित्री और अग्रणी स्वधीनता सेनानी सुभद्रकुमारी चौहान ने अपने परिवार एवं पति के आदर्शोन्मुख वातावरण से ही इस समाज और साहित्य जगत मे ख्याती बना पाए।

समय के साथ साथ प्रत्येक गतिविधि में घरेलू स्त्री के संदर्भ में भी बहुत परिवर्तन हुए। घरेलू महिला को आज के आधुनिक युग के कदम से कदम बढ़ाते चलना हैं। जीवन के वास्तविक लक्ष्यों को आकने के लिए स्त्री को शिक्षित होना अनिवार्य ही नहीं आवस्याम्भावी भी है। समय के साथ साथ अपने आपको अधतन करना जरुरी को गया है। गृह कार्यो मे कुशल होना चहिए। मितव्ययिता, आदर्श गृहिणी के लिए

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Multilevel Image Thresholding using OTSU's Algorithm in Image Segmentation

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Abstract— In any image processing research the main focus is the image which is expected to clean to analyze the expressions or features in it. Most of the images are disturbed with noise either because of natural phenomenon or by the data acquisition process. Pre-processing of images are used improve the quality of the image, which makes the subsequent process in image recognition easier. In this paper we discuss the thresholding algorithm for image pre-processing. Image segmentation is the fundamental approach of digital image processing. Among all the segmentation methods, Otsu method is one of the most successful methods for image thresholding because of its simple calculation. Otsu is an automatic threshold selection region based segmentation method. This paper studies various Otsu algorithms.

Index Terms—image processing, thresholding, local thresholding, global thresholding, OTSU, QIR, multilevel thresholding.

1. Introduction

The objective of digital image processing is extracting useful information from images without human assistance. The segmentation process for images with complicated structure is one of the most difficult problems in image processing and has been an active area of research for several decades. Segmentation divides an image into its constituent regions or objects. Segmentation of images is a difficult task in image processing. Segmentation allows extracting objects in images. Segmentation is unsupervised learning. First category is to partition an image based on abrupt changes in intensity, such as edges in an image. Second category is based on partitioning an image into regions that are similar according to predefined criteria [1]. This paper has taken the study of these second category threshold techniques. Survey of some of the methods found in Weszka [19], Sahoo et al. [18], and Lee et al. [29]. In many applications of image processing, the gray levels of pixels belonging to the object are quite different from the gray levels of the pixels belonging to the background. Thresholding becomes then a simple but effective tool to separate objects from the background. Examples of thresholding applications are document image analysis where the goal is to extract printed characters , logos, graphical content, musical scores, map processing where lines, legends, characters are to be found, scene processing where a target is to detected, quality inspection of materials. Other applications include cell images and knowledge representation, segmentation of various image modalities for non-destructive testing (NDT) applications, such as ultrasonic images in, eddy current images, thermal images, X-ray computed tomography (CAT), laser scanning confocal microscopy, extraction of edge field, image segmentation in general, spatio-temporal segmentation of video images etc. The output of the thresholding operation is a binary image whose gray level of 0 (black) will indicate a pixel belonging to a print, legend, drawing, or target and a gray level of 1 (white) will indicate the background. The main difficulties associated with thresholding such as in documents or NDT applications occur when the associated
noise process is non-stationary, correlated and non-Gaussian. Other factors complicating thresholding operation are ambient illumination, variance of gray levels within the object and the background, inadequate contrast, object shape and size non-commensurate with the scene. Finally the lack of objective measures to assess the performance of thresholding algorithms is another handicap.

2. THRESHOLDING

Threshold is one of the widely methods used for image segmentation. It is useful in discriminating foreground from the background. By selecting an adequate threshold value T, the gray level image can be converted to binary image.

13. CHALLENGES WOMEN ENTREPRENEURS FACE IN INDIA

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Abstract:

It's a known fact that success doesn't happen overnight, things take time, it demands hard work and enthusiasm.

In today's world, women entrepreneurs are playing a very vital role. Women entrepreneurs' development is an essential part of human resource development. The development of women entrepreneurs is very low in India due to various criticisms they face.

The main purpose of this paper is the challenges that Indian women entrepreneurs face in India. Another main purpose of this paper is to analyze the policies of Indian government for women entrepreneurs, and to analyze if those policies are adequate for the growth and developments of women entrepreneurs.

Keywords: *Entrepreneurship development, Government policies, women challenges, key to success.*

Introduction

India is one of the fastest emerging economies and the importance of entrepreneurship is realized across gamut. Women entrepreneurship means an act of business ownership and business creation that empowers women economically increase their economic strength as well as a better position the present society.

The new generation women across the globe have overcome all negative notions and proved themselves in all spheres of life. Gone are the days where women were considered as no match to all powerful men. Women these days end up being the back bone of not just their own homes but the economy of the country. A difference between the genders is predominance that men want to grow their new ventures to achieve financial success whereas for women financial success is just one of the many reasons to start and grow a business. Women tend to have success that emphasizes quality of life in the community and recognizes place-based needs other than employment and income.

The impact of globalization, liberalization, industrialization and with the growth of education and awareness the women have shifted their roles from kitchen to industry.

Women entrepreneurs still end up playing different roles and have more responsibility on them to find the right balance between their family and their career.

Review of Literature

- Bowen & Hisrich, (1986), evaluated many research studies done on women entrepreneurship. It concluded that female entrepreneurs are relatively well educated in general but are not having proper management skills, high in internal locus of control than other women in their values & are likely to have had entrepreneurial fathers. Recent study on changes in women entrepreneur in Asian developing countries. The study focused mainly on women entrepreneurs in small and medium enterprises based on data analysis and review of recent key literature. The study found that women entrepreneurship is gaining overwhelming importance in all sectors. The study also depicted the fact that representation of women entrepreneurs in this region is relatively low due to factors like low level of education, lack of capital and cultural or religious constraints.

- Priyanka Sharma Global Journal of Management and Business Studies. ISSN 2248-9878 Volume 3, 2013. Her paper focuses on women entrepreneurs. Any understanding of Indian women, their identity and especially of their role taking and breaking new paths, will be incomplete without the walk down the corridors of Indian history where women have lived and internationalized various role models

- Mr. Amit Kumar, Mr. Rahul Varuma, the status of women entrepreneurs in India and to analyse the policies of Indian Government for women and also to analyse these policies are adequate for the growth of women entrepreneurs in India. The institutions that are serving the women to put their views into actions.

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Efficient Image Segmentation based Brain Tumor Detection in MRI images

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Abstract— Major brain tumors are not diagnosed until after symptoms appear. Often a brain tumor is initially diagnosed by an internist or a neurologist. An internist is a doctor who specializes in treating adults. A neurologist is a doctor who specializes in problems with the brain and central nervous system. Diagnosing a brain tumor usually begins with magnetic resonance imaging (MRI). MRI Imaging play an important role in brain tumor for analysis, diagnosis and treatment planning. Brain tumor detections using MRI images are a challenging task, because the complex structure of the brain. Brain tumor is an abnormal growth of cell of brain. MRI images offer better difference concern of various soft tissues of human body. This paper has proposed Tumor Detection System to identify the abnormal growth of cells in brain. The methodology includes image pre-processing, image segmentation, morphological operations and the detection of tumor in the brain. The system was designed and developed using MATLAB.

Keywords—*medical imaging; Brain tumor; Magnetic Resonance Imaging; Thresholding; Histogram*

I. INTRODUCTION

Medical imaging refers to a number of techniques that can be used as non-invasive methods of looking inside the body. This means the body does not have to be opened up surgically for medical practitioners to look at various organs and areas. It can be used to assist diagnosis [24] or treatment of different medical conditions. Medical imaging technology has revolutionized health care over the past 30 years, allowing doctors to find disease earlier and improve patient outcomes. Imaging techniques use radiations that form part of the **electromagnetic spectrum [18].** Exploiting other types of radiation in the electromagnetic spectrum allows us to see further than our eyes allow us to using only visible light. The most familiar of these other types are x-rays, which are often used to show if a bone is broken. X-rays, however, are not very useful for looking at other tissues and the radiation can also be harmful to certain areas of the body [11]. Other techniques have been developed that allow different tissues and metabolic functions to be "seen" using different parts of the electromagnetic spectrum [4].

CT scans are a type of X-ray that creates a three-dimensional picture of the head by scanning the head from multiple different angles [10]. A computer combines these images into a detailed, cross-sectional view that shows abnormalities in the brain, or tumors. Diffusion Tensor Imaging (DTI) measures the flow of water through the white matter tracts of the brain [8]. This provides a snapshot of the brain's structure and can be used to compare changes over time.

Functional Magnetic Resonance Imaging (FMRI) scan is used to determine the specific location of the brain where a certain function, such as speech or motor function, occurs [23]. By pinpointing the exact location of the functional center in the brain, physicians can plan surgery or other treatments for a particular disorder of the brain [1].

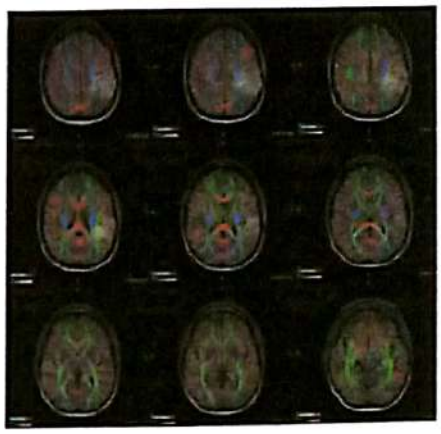

Fig.1 DTI of metastatic brain tumor

Fig. 2 FMRI of metastatic brain tumor

The best type of imaging to diagnose most types of brain tumours is Magnetic Resonance Imaging (MRI). These scans use magnetic fields and radio waves, rather than X-rays, and computers to create detailed pictures of the brain. MRIs show visual "slices" of the brain that can be combined to create a three-dimensional picture [15] of the tumour. Therefore, in this research we acquired MRI scan images of brain as the dataset to segment the tumour affected areas and interpret the results. As tumour in MRI image have an intensity more than that of its background so it become very easy locate it and extract it from a MRI image.

II. TYPES OF BRAIN TUMORS

Brain tumors can be classified into two general groups: primary and secondary.

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Modified emotion recognition system to study the emotion cues through thermal facial analysis.

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Abstract

Recognition of facial expression is a potential application in emotion analysis. This research is mainly focused to study the emotion cues hidden in human face. Even a slightest anxiety or excitement can trigger a warm spread across the cheeks. Similarly, face temperature plummets when a person is shaken by a loud noise. Thus thermal facial images are used in this research to analyze the emotions using the heat map spread across the face. The recognition system is framed and designed on the concept of visible spectrum. The new concept greatly affects the recognition method to be effective on poorly illuminated environments. In this proposed method which is called as the Modified Thermal Emotion Recognition we use the Eigen face technique which is of great help when it comes to a large database of faces. We also use PCA-principal component analysis with Eigen face because of its simplicity, speed and learning capability. The PCA technique helps in efficiently representing pictures of faces along with the Eigen face technique. Once the weights are derived from the original images, ADA Boost algorithm is applied, which helps to reduce huge image database. ADA Boost simplifies and reduces the number of weights and helps in easy calculation process. SIFT and GLCM algorithm is used to extract the features from the image by training the database.

Keywords: Emotion recognition, Thermal images, Eigen face, ADA boost, SIFT, GLCM, FFNN.

Accepted on September 22, 2017

Introduction

Emotional intelligence relates to facial expressions. On the current scenario there is little literature works on solving the FER problem in thermal images. The major drawbacks in facial analysis are texture, disturbance caused by glasses and the areas that do not represent emotions. The advancement in exclusive and minutiae technology has lead to the exploration of abstract and qualitative object like emotions.

Manual analysis of human emotions completely depends on the hand of expert. This type of method has faults in the accuracy of the result and the report is on average. There is another technique which is available called the polygraph examination. The accuracy rate is 90% but the main disadvantage is that it needs human cooperation and is a very long process to perform. It consumes tremendous amount of time to deliver the outcome. Hence in this paper we discuss about the thermal imaging process. This process uses the facial expressions and it does not need the cooperation of humans. The results delivered by this process are quick. Thermal imaging is based on the concept of heat radiation generated in the facial skin. Thermal images are used for both instantaneous and sustained stress conditions as these are the vital conditions to bring changes in blood flow. The blood flow changes generate heat in the facial texture. These heat changes help to detect and process the thermal imaging process. In this paper we discuss on the thermal facial analysis to recognize the status of the person. The novelty of this paper gives way for future works. The proposed algorithm has wide application in the medicine industry to monitor the health aspect of human beings.

Applications of thermal facial analysis

Thermal facial analysis allows non-contact, non-invasive investigations on human emotion cues. Many researchers have concluded that the concealed information test [1] is more appropriate for testing psychopathic offenders who demonstrate a lack of emotion. Extracting the forehead thermal signature after a mock crime scenario has given a promising success rate in lie detection [2]. Thermal cameras can capture the facial skin temperature, which helps to classify cognitive workload [3] and anxiety detection [4] can be done by measuring the breathing rate along with the facial skin temperature.

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Multilevel Image Thresholding using OTSU's Algorithm in Image Segmentation

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Abstract— In any image processing research the main focus is the image which is expected to clean to analyze the expressions or features in it. Most of the images are disturbed with noise either because of natural phenomenon or by the data acquisition process. Pre-processing of images are used improve the quality of the image, which makes the subsequent process in image recognition easier. In this paper we discuss the thresholding algorithm for image pre-processing. Image segmentation is the fundamental approach of digital image processing. Among all the segmentation methods, Otsu method is one of the most successful methods for image thresholding because of its simple calculation. Otsu is an automatic threshold selection region based segmentation method. This paper studies various Otsu algorithms.

Index Terms—image processing, thresholding, local thresholding, global thresholding, OTSU, QIR, multilevel thresholding.

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The objective of digital image processing is extracting useful information from images without human assistance. The segmentation process for images with complicated structure is one of the most difficult problems in image processing and has been an active area of research for several decades. Segmentation divides an image into its constituent regions or objects. Segmentation of images is a difficult task in image processing. Segmentation allows extracting objects in images. Segmentation is unsupervised learning. First category is to partition an image based on abrupt changes in intensity, such as edges in an image. Second category is based on partitioning an image into regions that are similar according to predefined criteria [1]. This paper has taken the study of these second category threshold techniques. Survey of some of the methods found in Weszka [19], Sahoo et al. [18], and Lee et al. [29]. In many applications of image processing, the gray levels of pixels belonging to the object are quite different from the gray levels of the pixels belonging to the background. Thresholding becomes then a simple but effective tool to separate objects from the background. Examples of thresholding applications are document image analysis where the goal is to extract printed characters , logos, graphical content, musical scores, map processing where lines, legends, characters are to be found, scene processing where a target is to detected, quality inspection of materials. Other applications include cell images and knowledge representation, segmentation of various image modalities for non-destructive testing (NDT) applications, such as ultrasonic images in, eddy current images, thermal images, X-ray computed tomography (CAT), laser scanning confocal microscopy, extraction of edge field, image segmentation in general, spatio-temporal segmentation of video images etc. The output of the thresholding operation is a binary image whose gray level of 0 (black) will indicate a pixel belonging to a print, legend, drawing, or target and a gray level of 1 (white) will indicate the background. The main difficulties associated with thresholding such as in documents or NDT applications occur when the associated
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2. THRESHOLDING

Threshold is one of the widely methods used for image segmentation. It is useful in discriminating foreground from the background. By selecting an adequate threshold value T, the gray level image can be converted to binary image.

Scilab Cloud on Computation

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Abstract: The use of internet and new technologies nowadays, for business or for domestic purpose, is a part of everyday life. Any information is available anywhere in the world at any time. The Cloud Computing can be termed as anything that involves delivering hosted services over the internet. On Scilab Cloud, the applications runs its algorithms on the server-side, and renders the user-interface in any web-browser. This paper analyzes Scilab Cloud , Use of ALEx, Data fit function and some of the Scilab algorithms.

Keywords: *Cloud Computing, Scilab Cloud, ScilabAlorithms, ALEx, Data fit function.*

I. INTRODUCTION

Cloud Computing[1] has its own meaning in various fields. For the Institute of Electrical and Electronics Engineers, Cloud

Computing is "A paradigm in which information is permanently stored in servers on the internet and cached temporarily on clients". For Wikipedia, Cloud Computing is "Computation, Software, Data Access and Storage Services that do not require end user knowledge of the physical location and configuration of the system that deliver the services". The University of Berkeley defines Cloud Computing as "Cloud Computing refers to both the applications delivered as services over the internet and the hardware and systems software in the data centers that provide those services".

Scilab on cloud facilitates execution of the codes for particular example online. The results can then be verified with the solved example from the text book. It is also possible to change the values of the variable and in fact, the code itself, and execute it

II. APPLICATION OF SCILAB CLOUD

The applications deployed in Scilab Cloud are written in Scilab language for both algorithms and user interface. This allows an application to be written for both.

1. Desktop-based deployment (running with Scilab on a desktop).

2. Cloud deployment (running in Scilab code with rendering through the web-browser).

The application of Scilab Cloud extends to various fields such as Weather Forecasting, System Parameters Identification, Flight data analysis, Graphics Creation, Margins Calculations, Flight by Fight Comparison

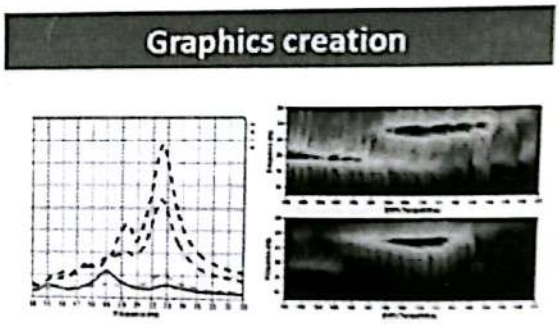

Fig. 1

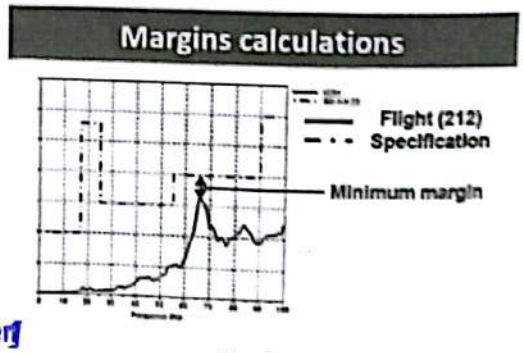

Fig. 2

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GREEN BANKING - "A TOWS ANALYSIS IN INDIA"

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Introduction

"Earth provides enough to satisfy every man's need but no every man's greed"

By **Mahatma Gandhi**

In many cultures, "Green" is an affirmation of life. It indicates growth, fruitfulness and rejuvenation. Being Green is growth. It is becoming more efficient in the operation of personal and business life by eliminating wasteful spending Enterprises are now interested in implementing strategies that help to address environmental issues. The of the reasons to go for green banking. Green banking refers to practices which considers all the social and environmental factors, aims to make growing interest of consumer in environmentally friendly goods and services, higher expectations by public, regulatory compliance requirements are some use of IT and banking processes with minimal impact on the environment. Green banking will help to improve the asset quality of the banks. Green banking means promoting environmental friendly practices and reducing your carbon footprint from banking activities.

It comes in many forms like:

- Using online banking instead of branch banking
- Paying bills online instead of mailing them
- Opening up accounts at online banks, instead of multi branch banks.
- Finding local bank in your area that is taking biggest steps in supporting local green initiatives.
- Granting loans for Eco-Friendly Projects
- Far-reaching market based solutions to address a range of environmental problems, including climate change, deforestation, air quality issues and biodiversity loss, while at the same time identifying and securing opportunities that benefit customers.

The first green banking was started by State Bank of India(SBI). India's largest commercial bank, which took initiative in setting high sustainability standards and completed the first step in "Green Banking" with Shri O.P. Bhatt, Chairman, SBI. Inaugurating the bank's first wind farm project in Coimbatore. After that green bank initiative include ATMs, paperless banking for customers and building of wind mills in rural India.

Banks can provide important leadership for the required economic transformation that will provide new opportunities for financing and investment policies as well as portfolio management for the creation of a strong and successful low carbon economy. Economists are clear that substantial funding from the privateand public sector are needed to achieve the level of investment required to control the effects of climate change. Although, banking is never considered a polluting industry, the present scale of banking operations have considerably increased the carbon footprint of banks due to their massive use of energy (e.g. lighting, air conditioning, electronic/electrical equipments, IT etc.), high paper wastage, lack of green buildings etc. Banks should adopt technology, process and products which result insubstantial reductionof theircarbon footprint as well as develop a sustainable business.

Literature Review

Bahl, (2012) conducted an empirical study on "Green Banking - The new strategic imperative" tried to find out the most significant strategies while going ahead with green banking by using Garrett's ranking technique. Researcher found that Carbon footprint reduction by Green building had been given top priority in green banking strategies and green banking financial products has also been given due weightage. However, Paper less banking and using mass transportation system has been rated low as green banking strategies.
Bahl S. The Role of Green Banking in Sustainable growth. International Journal of Marketing, Financial services & Managemrnt ent Research. 2012; 2(2):27-35.

Indian Banks Association (IBA, 2014) "Green Bank is like a normal bank, which considers all the social and environmental / ecological factors with an aim to protect the environment and conserve natural resources".

Indian Banks Association (2014, 03 3).Green Banking Innovations: Indian Banks' Association.Retrieved from 4. The Indian Banker: http:// www.theindianbanker.co.in/ html/sto_5.htm

Objective of the Study

- To study concept of 'Green Bank'
- To highlight &impart education to attain sustainable development through green banking
- To enumerate effective methods for green banking
- To analyze TOWSof Green Banking
- To learn in-depth about the green banking products

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8. ECONOMIC CHALLENGES & OPPORTUNITIES IN INCLUSIVE EDUCATION

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ABSTRACT

This paper will focus on the concept of Inclusive teaching. It refers to any number of teaching approaches that address the needs of students with a variety of backgrounds, learning styles, and abilities. These strategies contribute to an overall inclusive learning environment, in which students feel equally valued. It is important that the strategies we employ in the classroom reflect an understanding of social identity development so that we can anticipate the tensions that might occur in the classroom and be proactive about them. Learners learn differently. The goal of education is to support learners in reaching their full potential. While part of the educational process is to challenge learners to facilitate their growth, many learners experience constraints that make it difficult if not impossible to access certain learning resources.

Keywords: students face barriers to learning, equalized education, instrumental in changing discriminatory attitudes, Parental involvement, education-related policies and strategies.

Introduction:

Education is a right every child in the world has the right to a primary education. The trend in special education law has moved away from segregating students with special needs. Instead, there is a movement toward educating disabled or special needs students and non-disabled or typical students together. Today, the best practices involve the inclusion of special needs students with typically developing peers to the maximum extent possible.

Inclusive education means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school. Inclusive education is about how we develop and design our schools, classrooms, programs and activities so that all students learn and participate together. Neighborhood schools are the heart of our communities, and Inclusion believes they are essential for a quality inclusive education system. Therefore we believe it is important to support a public education system.

Although often used interchangeably, various terms describing educating students with and without special needs in one classroom do not mean the same thing to everyone. Here are some terms and their standard definitions, at least how they will be considered for this article.

- **Inclusion**— placing a special education student in a general education setting. The school brings specially designed supports and instruction to the student, rather than removing the disabled student from a general education setting to receive special education services. A special educator is usually involved in the student's education either as a consultant or co-teacher (along with a regular education teacher) for some or all of the day.
- **Mainstreaming**— placing a special education student in one or more regular education classes once the student has shown an ability to keep up with work assigned in a special education class. A mainstream classroom generally has no special education teacher.
- **Integration**— placing a special education student in a setting with both disabled and non-disabled students, often just for a portion of each school day. When integration is on a part-time basis, it can make a special needs student feel like a visitor, unattached and excluded from the integrated class.

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MULTISPECTRALIMAGE ENHANCEMENT THROUGH HISTOGRAM EQUALIZATION AND DECORRELATION STRETCHING

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ABSTRACT

Image enhancement is basically improving the actual interpretability or perception of information in images for human viewers and providing greater input for other hard-wired image processing techniques. Multispectral images used in remote sensing are generally prepared for interpretation by selecting three of the image channels for display as red, green and blue components of an additive colour picture. Spectral information contained in the data is portrayed in the colours of the displayed picture. It is advantageous to create colourful pictures to convey as much spectral information as possible to the photo interpreter. Image enhancement algorithms offer a wide selection of approaches for modifying photographs to achieve visually appropriate images. The choice connected with such techniques is a function with the specific task, image content, observer characteristics, along with viewing conditions. The place processing methods are many primitive, yet essential image processing operations and are utilized primarily for contrast enhancement. Decorrelation stretching enhances the color separation of an image with significant band-to-band correlation. The exaggerated colors improve visual interpretation and make feature discrimination easier. The original color values of the image are mapped to a new set of color values with a wide range. The color intensities of each pixel are transformed into the color eigenspace of the NBANDS-by-NBANDS covariance or correlation matrix, stretched to equalize the band variances, and transformed back to theoriginal color bands. Each image enhances differently depending on the distribution of colors, color space chosen, and whether the inverse transform is used to map the decorrelated colors back.

Keywords- *Image Enhancement; Histogram Equalization; Image Processing; Contrast Stretching; Decorrelation Stretching.*

I. INTRODUCTION

Imageenhancement is used to improve the quality of animage for visual perception of human beings. It is also usedfor low level vision applications. It is a task in which the setof pixel values of one image is transformed to a new set ofpixel values so that the new image formed is visually pleasingand is also more suitable for analysis. The main techniquesfor image enhancement are contrast stretching, slicing,and histogram equalization for gray scale images. The types of enhancement methods can broadly often be divided into Spatial Methods for Image Enhancement and Frequency Domain Methods for Image Enhancement. In spatial domain techniques, we directly deal with all the image pixels. Thepixel cost is manipulated to attain wanted enhancement. In frequency domaintechniques, the image is first transferred straight into frequency domain. Itmeans that, the Fourier Transform from the image is computed first. Every oneof the enhancement operations are performed for the Fourier transform of thespecific image and then the Reverse Fourier transform is performed to get theconcomitant image.

The goal of image enhancement is usually to improve interpretability or perception of info available within the images, making it suitable for human vision, as well as to provide improved input to the other automated image processing techniques.Decorrelation Stretch (DCS) is applied to the multi channel image enhancement. Image Adjust (IA) is primarily concentrate on adjusting the contrast and the quality of the entire image. Image noise (IN) is utilized to incorporate the noise within the image.Histogram equalization (HE) is amongst the effective and simple method of improving image quality. However, the standard histogram equalization methods [7] usually lead to excessive contrast enhancement/improvements. Other equally important methods [11] such as Adaptive Histogram Equalization (AHE), Histogram Equalization (HE), Decorrelation Stretch (DRS), Image Adjust (IA) and Image

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Uses and Access of New Media for Women Development – A Study

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ABSTRACT

The present research is to study the uses and access of new media for women development. In the modern world the use of new media is increased drastically. The 20th century has witnessed the rise of new media such as Face book, You Tube, Google, and Twitter, which enable the development of women in social, political and economic field. New media is related to internet and the interplay between technology, images and such. It evolves and morphs continuously. What it will be tomorrow is virtually unpredictable for most of us, but we know it will continue to evolve in fast and furious ways. Women development is an approach to development projects that emerged in the recent years, calling for treatment of women's issues in development projects. It is the integration of women into the global economies by improving their status and assisting in total development. Now a day's new media provides ample opportunities for the women in providing the information about current affairs. Ever since mass media became mass media, public have naturally used this means of communication for getting information. The methodology adopted is based on uses and gratification theory. The paper deals with the uses and access of new media for women development. The objectives of the study is a) to know whether women have access to new media b) to know the uses of new media and c) to study by access to new media women are developed in social, political and economic areas.

Keywords – New Media, Women, Development, Access, Uses and Gratification Theory.

Introduction

The 20th century has witnessed the rise of new media channels such as Facebook, Youtube, Google, Twitter, Whatsup and email which enable people

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Effective Morphological Image Processing Techniques and Image Reconstruction

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***Abstract*—** Morphological image processing is a collection of non-linear operations related to the shape or morphology of features in an image. Morphology is a broad set of image processing operations that process images based on shapes. Morphological operations apply a structuring element to an input image, creating an output image of the same size. In a morphological operation, the value of each pixel in the output image is based on a comparison of the corresponding pixel in the input image with its neighbors. By choosing the size and shape of the neighbourhood, you can construct a morphological operation that is sensitive to specific shapes in the input image. The most basic morphological operations are dilation and erosion. Dilation adds pixels to the boundaries of objects in an image, while erosion removes pixels on object boundaries. The number of pixels added or removed from the objects in an image depends on the size and shape of the structuring element used to process the image. In the morphological dilation and erosion operations, the state of any given pixel in the output image is determined by applying a rule to the corresponding pixel and its neighbors in the input image. The rule used to process the pixels defines the operation as a dilation or an erosion. This table lists the rules for both dilation and erosion.

Keywords*—*Image Processing; Morphology; Structuring Element; Dilation; Erosion; Opening And Closing.

I. INTRODUCTION

Morphological operations rely only on the relative ordering of pixel values, not on their numerical values, and therefore are especially suited to the processing of binary images. Morphological operations can also be applied to greyscale images such that their light transfer functions are unknown and therefore their absolute pixel values are of no or minor interest. Morphological techniques [13] probe an image with a small shape or template called a **structuring element**. The structuring element is positioned at all possible locations in the image and it is compared with the corresponding neighbourhood of pixels. Some operations test whether the element "fits" within the neighbourhood, while others test whether it "hits" or intersects the neighbourhood, white and grey pixels have zero and non-zero values, respectively.

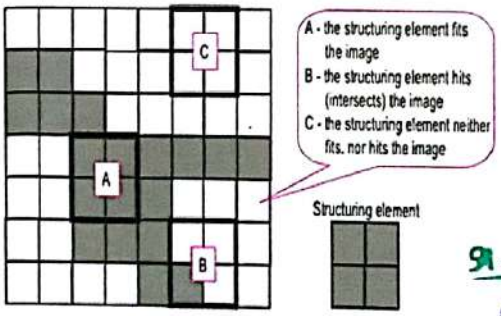
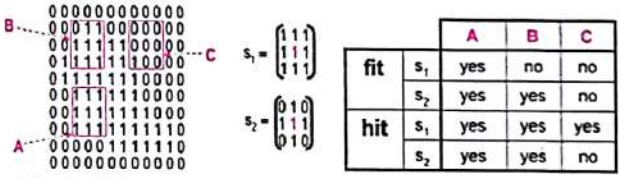


Fig.1 Probing of an image with a structuring element

A morphological operation on a binary image creates a new binary image in which the pixel has a non-zero value[8] only if the test is successful at that location in the input image. The **structuring element** is a small binary image, i.e. a small matrix of pixels, each with a value of zero or one:

- The matrix dimensions specify the *size* of the structuring element.
- The pattern of ones and zeros specifies the *shape* of the structuring element.
- An *origin* of the structuring element is usually one of its pixels, although generally the origin can be outside the structuring element.

A common practice is to have odd dimensions of the structuring matrix and the origin defined as the centre of the matrix. Structuring elements play in morphological image processing the same role as convolution kernels [17] in linear image filtering. When a structuring element is placed in a binary image, each of its pixels is associated with the corresponding pixel of the neighbourhood under the structuring element. The structuring element is said to **fit** the image if, for each of its pixels set to 1, the corresponding image pixel is also 1. Similarly, a structuring element is said to **hit**, or intersect, an image if, at least for one of its pixels set to 1 the corresponding image pixel is also 1 [6].



		A	B	C
fit	s_1	yes	no	no
	s_2	yes	yes	no
hit	s_1	yes	yes	yes
	s_2	yes	yes	no

Fig. 2 Fitting and hitting of a binary image with structuring elements s_1 and s_2.

Zero-valued pixels of the structuring element are ignored [12], i.e. indicate points where the corresponding image value is irrelevant. The fundamental morphological operations are dilation and erosion [16].

II. DILATION

Dilation is an operation that grows or thickens objects in an image. The specific manner and extend of this thickening is controlled by a shape referred to as a structuring element. Graphically, structuring elements can be represented by a matrix of 0s and 1s or as a set of foreground 1-valued pixels [12]. We use both representations interchangeably, therefore regardless of the representation; the origin of the structuring element is clearly identified. The dilation of an image f by a structuring element s, denoted by $f \oplus s$ produces a new binary image $g = f \oplus s$ with ones in all locations (x,y) of a structuring element's origin at which that structuring element s hits the the input image f, i.e. $g(x,y) = 1$ if s hits f and 0 otherwise, repeating for all pixel coordinates (x,y). Dilation has the opposite effect to

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BUSINESS INNOVATION AND SUSTAINABILITY MAKE IN INDIA, SKILL INDIA,AND DIGITAL INDIA SMART CITIES INITIATIVES.

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Abstract
Make in India is a project launched by Mr.Narendra Modi, with much expectation and hopes that it would boost our national economy with a key focus on increasing manufacturing and FDI.

In this paper, an effort has been made to highlight the key policies and projects under the Make In India campaign. An analysis has been made on how the plans would have an impacton our economy. This paper also focuses on the criticisms made for the Make In India campaign, the challenges that this project could face and whether this would be an illusion or a real project, also remembering the fact that this project is just 2 years old.

Keywords:- Digital India, Smart Cities, Business Index, Skill India.

INTRODUCTION

Make In India is an initiative by the government to boost domestic manufacturing and attract foreign investment.Narendra Modi, our Prime Minister started this campaign in September 2014 and has dedicated the campaign to Deen Dayal Upadhaya who was a philosopher and a political personality.

The objectives of Make In India campaign are

1. To increase GDP from 15% to 25% in the manufacturing sector
2. To attract FDI
3. To create job opportunities.

This was necessary because most entrepreneurs are moving out of country because of its low rank in Ease Of Doing Business Index. India ranks 130th in the World Bank's Ease Of Doing Business Index.

Reasons for companies not investing in India

1. India's indisposed infrastructure
2. Inoperative logistics
3 Lack of proper transport
4. Widespread corruption
5. Bureaucratic approach of the former governments.

India has identified 25 sectors for the Make In India campaign.

Automobiles	Food Processing	Renewable Energy
Automobile Components	IT and BPM	Roads and highways
Aviation	Leather	Space
Biotechnology	Media and Entertainment	Textiles and garments
Chemicals	Mining	Thermal Power
Construction	Oil and Gas	Tourism and Hospitality
Defence manufacturing	Pharmaceuticals	Wellness
Electrical Machinery	Ports	
Electronic Systems	Railways	

The Make in India campaign has come up with a policy of "zero defects zero effect" with a new mindset in manufacturing.

The campaign will make it easier for FDI investors and will encourage them to invest in Asia, particularly in India because of its democratic condition and manufacturing superiority.

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ELEMENTS IN MODERN AMERICAN DRAMA

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ABSTRACT
This paper works to examine the elements that have emerged in Modern American Drama, with particular reference to Tennessee Williams and Arthur Miller, against the background of a historical study of American Theatre through ages. The history of the theatres in America is studied, and the discussion extends to delineate particular movements and changes in the trajectory. Ranging from the period of colonization to the World Wars to the Great Depression period to the modern times, an analysis of the evolution of the American theatre is made.The paper focuses on a reading of the American theatrein noticeable depth in order to understand the changes that have happened gradually and the reasons behind these changes. Two of America's famous playwrights and some of their works are explained in order to understand the progress of American Drama and how actually these two playwrights contributed a whole new insight into comprehending drama in a new perspective. Williams and Miller have contributed to the growth of American theatre, and it is probably through them that more of autobiographical stances and incidents emerge in American fiction-drama.A reader, precisely an American reader, could easily relate to situations which the two playwrights have created in their works; and this is because the reader too has witnessed the same situations in reality. Further, the paper also examines various techniques used in the theatre and the changes that have come about with external influences such as colonialism, religion, wars and economy.

Key words: Realism, Plastic Theatre, Folk-Drama, Regionalism, Poetic-Drama, Mobile-Concurrency

American drama dates back even before the first English colony was established in 1607, there were the Native American tribes who performed theatrical events. The professional theatre may have begun with the Lewis Hallam troupe in Williamsburg, Virginia in 1752. Theatres begun in Williamsburg and Charles Town, South Carolina; popular plays in London at that time, like *Hamlet*, *Othello*, *The Recruiting Officer*and *The Merchant of Venice*, were brought to America and enacted. However, most plays encountered oppositions from religious organizations – this led to the opening of a theatre in New York, by Lewis Hallam, and this theatre professionally mounted American play.

The early years of the 20th century, before the First World War, drama saw 'realism' as the main development. At the start of 1900, there was a

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Research Paper

Deconstruction of a Random Text

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ABSTRACT:- *This study aims at understanding the concept of deconstruction which is extensively used as one of the literary reading methods. This paper is merely a reflection of how deconstructing a text works at its base level. An application of deconstruction reading is done to a randomly chosen text, the idea is to analyze any given text unbiased. For every phrase given for analysis, there exists two faces, the obvious meaning and the latent meaning. The surface level reading of the text gives us an idea of its obvious meaning, while re-reading the same text in the highlight of the placing of the words, or with its strategically used figures of speech, would probably illuminate us with a perspective different from the former ones. While deconstructing a text, it is rather not advisable to make references or compare to larger texts dealing with the same themes or issues, because, this again would bring us back to being biased.*

Keywords: *Binary, Center, Contradictory, Deconstruction, Structure*

I. INTRODUCTION

Deconstruction designates a theory and practice of reading that questions and claims to subvert or undermine the assumption that the system of language is based on grounds that are adequate to establish the boundaries, the coherence or unity, and to determine meanings of a literary text. Typically, a deconstructive reading sets out to show that conflicting forces exist within the text itself, and how it serves to dissipate the appearing definiteness of its structure and meanings into an indefinite array of possible interpretations.

Deconstructive reading critiques the established structure systems and attempts to decenter the system's main ideology. Derrida, in his work *Structure, Sign and Play in the Discourse of the Human Sciences*, mentions that structures always have centers and it is this point that shapes and defines the structure. The center, according to Derrida, is paradoxically both within the structure and outside it, meaning the ideology which is the center of the structure is both part of the structure as well as something which is above and beyond the structure.

The central point of the structure, though related to the structure, is superior and different from the various other elements that constitute the structure. Derrida calls this "contradictorily coherent" (394), which means there is a contradiction in which the focal point of a structure which is both part of the structure and outside the structure. A deconstructive reading of the given literary text works to point out these contradictions present in it and to subvert the implied notion to that of the hidden or possible interpretations.

Deconstruction also looks for binary pairs of oppositions where things are supposed to stay neatly in fixed categories. If the stability of a structure depends on these binary oppositions, shaking the oppositions will shake up the whole structure. We need to examine every word present in the text to extract the obvious and the latent meaning, and thus, a deconstructive reading would be beneficial to literally examine the text in every single aspect.

II. TEXT FOR A DECONSTRUCTIVE READING

Take up the White Man's burden--
Send forth the best ye breed--
Go bind your sons to exile
To serve your captives' need;
To wait in heavy harness,
On fluttered folk and wild--
Your new-caught, sullen peoples,
Half-devil and half-child.

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