# **Sushant** University

Link to the institutional website where the first page/full paper (with author and affiliation details) is published.

# Appendix-II (2020 - 2021)

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# VIRTUAL REALITY – THE FUTURE REALITY

Om Rana<sup>1</sup>, Dr. Bindu Thakral<sup>2</sup> Email: omrana.gurgaon@gmail.com, binduthakral@ansaluniversity.edu.in Ansal University, Gurugram, India

Abstract- We are surrounded by technological mixes in today's culture. These developments have also brought us a majority in our daily lives. Gradually, such diverse technologies are combined to provide us with new skills and services. And the cornerstone of this convergence is most often a computer. That is the case with a so-called augmented reality device and is a very complicated mix of a broad spectrum of technology.

The Virtual Reality technology assimilates sophisticated input and output tools by encouraging users to communicate and observe digital reality as if it were in the present world. A virtual reality software often allows the consumer to search and interact in three dimensions with a digital or artificial environment created by the designer. The user does routine things like throwing a tennis ball or floating in space as exceptional within the simulated universe. And only a hand gesture or a smile can all these items come in. Virtual reality is a three-dimensional computer-centered interactive environment that simulates reality. Virtual reality takes us into an imaginary universe much like our own. To construct a framework in the increased truth, principles of spatial frameworks and machine graphs must therefore be created which are linked in effect to mathematics, physics, nature and human psychology. **Keywords:** Energy, renewable, nonrenewable, alternative energy technology, fossil fuel.

### **1. INTRODUCTION**

Virtual Reality (VR) technology is becoming increasingly usable and embedded in the physical world, using computer devices, software and interactive technologies. Innovations like this are immediately responding to the real-time contact between individuals and the virtual world according to type of persons, language and so on. In recent years, researchers and businesses have therefore gained a great deal of interest in this technology. Virtual reality can be defined as using the modeling of computers and simulations that allow an individual to connect with the artificial 3D world.

A 3D simulated universe displays the nature of sun glasses, masks, goggles or suits of the body, and retrieves knowledge through certain interactive devices. That is, virtual reality can be represented in order to simulate presence physically in an artificial or virtual setting and construct a believable universe by using computer graphics. VR technology is a comprehensive, real-time technology which enables the device to sense user-specified inputs automatically and to change the virtual world instantaneously.



Fig. 1.1 Virtual Reality

### 2. THE STRUCTURE OF VR TECHNOLOGY

Digital perception refers to the use of a computerized digital experience that users can actually interact with the natural environments technology through a range of special equipments that provide user feedback into the world. VR technology helps people use the natural ability for observing or operating simulated objects in the world and offers real time vision, sound, touch and other normal and intuitive feelings. Three parts: visibility, gratitude to the virtual reality: humans, machines and surroundings:

By building a sensorial experience of view, sound, touch, smell and taste, a machine can create reality that can be a real reflection of the physical experience and also an area of abstract definition.

System is the simulator and interactive three-dimensional equipment that utilizes three-dimensional sensor arms, three-dimensional keyboard users, such as the usage of the device. In fact, the environment sensing equipment, such as cameras and sensors, is configured. Citizens in the world are virtual participants who process the data of activity through the computer, which can offer intense feelings.

A basic network of virtual reality includes six components: virtual reality and process processes created to computer, software creation processes and virtual reality linked to ideologies and technologies, man-machine and output interaction tools, user interface.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/035 Paper Id: IJTRS-ICACCG2020-035

@2017, IJTRS All Right Reserved, www.ijtrs.com

pg. 11

55, GUR

# MULTI LAYER STACKED RECTANGULAR DIELECTRIC RESONATOR ANTENNA

Richa Gupta<sup>1</sup>, Mahender Singh<sup>2</sup>, Arti Vaish<sup>3</sup>, Ankit Gaur<sup>4</sup> E-Mail Id: richaguptamsit@gmail.com<sup>1</sup>, msingh5500@gmail.com<sup>2</sup> <sup>1,4</sup> Maharaja Surajmal Institute of Technology, GGSIPU, Delhi, India <sup>2</sup>Guru Tegh Bahadur Institute of Technology, Delhi, India <sup>3</sup>School of Engineering and Technology, Ansal University Haryana, India

**Abstract:** This paper present a design of stacked rectangular dielectric resonator antenna provides 52.57 degree beam width and gain 6.9 dBi which operate in 5 to 8 GHz range of frequencies by stacking of descending order of permittivity from 20 to 10 of 1.5mm height of every block. A 50 ohm microstrip line is employed in proposed antenna as feeding mechanism. A novel different beam aperture coupled DRA is proposed which consists of multi-layered rectangular geometry of ceramic disk of various dielectric constant joined to realize the specified height. The parameter of antenna is 15x18x1.5 mm<sup>3</sup> with grounded substrate size: 50x50 mm<sup>2</sup>. The proposed antenna is suitable for C and X band application.

Keywords: Rectangular DRA, Stack, Permittivity, Beam width.

### **1. INTRODUCTION**

DRAs exhibit a wider impedance bandwidth and better radiation efficiency, especially at millimeter- wave frequencies where the conductor losses of metallic patches are considerable. One among the foremost crucial problems with conventional DRAs is that the dependence of their size and impedance bandwidth on the dielectric constant of material utilized in antennas. A DRA made up of a low permittivity material would have a comparatively large volume because of the inverse proportionality between effective wavelength and therefore the square root of the permittivity. It would, however, exhibit a low radiation Q-factor and thus a good impedance bandwidth[1-3]. Choice of dielectric constant of material utilized in the DRA is crucially important for wideband operation with compact design of the DRAs. Applications within the wireless and mobile communication areas require the event of radiating elements, which have as compact/low profile and wideband as possible. Hence, a great deal of research is directed towards a rise of the bandwidth of the DRAs while keeping the dimensions compact/low profile. Towards this goal, the technique of merging modes has proven to be very beneficial [4-6]. The essential concept relies on the excitation of multiple modes at nearby frequencies, in order that an overall wide impedance bandwidth will be achieved. A method is to mix the DRA modes with resonances of the feeding scheme. for example, an easy cylindrical DRA (CDRA) described in[4] is fed from a microstrip line through two parallel bowtie slots The second thanks to achieve the merging of modes is through the planning of the acceptable DRA geometry that ends up in the excitation of higher-order DRA modes[7-9] at nearby frequencies. Conceptually this technique is relatively simple, but it nevertheless comes along with an important issue, which needs to be taken into account.

The researchers are focusing on improving the gain along with getting the narrow beam and sustainable bandwidth for the satellite communication. The dielectric resonator antennas are the step forward to microstrip antennas with low metal loss, high radiation, high gain, etc. which creates the chance of more advanced antennas for different applications in satellite communication. In this paper different Rectangular stacking DRA geometries are analysed. The different dielectric constant material in increasing and decreasing order of permittivity is stacked together for improvement in gain and controlling beam-width of the antenna.

### 2. ANTENNA GEOMETRY

Figure 1(a) presents the geometry of a rectangular DRA using FR-4 epoxy substrate with a permittivity  $(\epsilon r)$  of 4.4.Ten rectangular layers each of height 1.5mm,making a total height of 15mm and permittivity varying in increasing order from 11,12,13,....20 is shown. The same stacked rectangular geometry is analysed in which stacking layer permittivity are varied in decreasing order from 20, 19, 10......11. All the dimensional are summarised in Table 2.1.

Ref.	Antenna Geometry	Freq (GHz)	Feeding Technique	$\epsilon_r$	Gain(dBi)	Beamwidth (degree)
[1]	Stacked cylindrical dielectric resonator antenna with meta material used as substrate.	(8.49 10.61 GHz)	Probe fed		12.86 dB	33.5°
[2]	Cylindrical cup	37% (7.8– 11.4 GHz)	L-shaped probe	10.2	5.5	70 Jah
[3]	perforated holes cylindric al DRA	8.18 to 10.7 GHz	Probe fed			53

Table-2.1 Paran	netric Study	of Diffe	rent Geom	etry of DRA
-----------------	--------------	----------	-----------	-------------

GUP

N.pg. 70

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN

ISSN No.:2454-2024 (online)

# PHYSIOCHEMICAL ANALYSIS OF GOMTI RIVER IN LUCKNOW CITY, UTTAR PRADESH

MaazShamsi<sup>1</sup>, Sangeeta Bajpai<sup>1</sup>, Monika Kamboj<sup>1</sup>, Paritosh Srivastava<sup>2</sup>, Anamika Paul<sup>3</sup> Aarti Vaish<sup>3</sup>

E-Mail Id: 1s\_pbajpai@yahoo.com, 2paritosh.srivastava@niu.edu.in

Amity School of Applied Sciences, Amity University, Lucknow, Uttar Pradesh, India

<sup>2</sup>Noida International University, Greater Noida, Uttar Pradesh India <sup>3</sup>School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

**Abstract-**River water is significant for every living organism. In Indian mythology rivers are given the status of Goddess and were worship. Modernization and urbanization has polluted the river water and degraded their status. Assessment of water quality and determination of pollution level has become a big necessity today. In view if above, the present work envisages findings of various physicochemical characteristics (pH, hardness, chloride, alkalinity, etc.) examined for Gomti river water samples collected from three different locations of Lucknow. This study was meant to determine the recent status of River Gomti along the Lucknow stretch. Results of the study indicated that river water is highly contaminated and not suitable for recreational activities. **Keywords:** Gomti River, Physiochemical studies.

### **1. INTRODUCTION**

River Gomti, one of the major affluent of river Ganga triggers from a reservoir located near Madhotanda (Miankot) with an altitude of 200 m. Its origin starts about 50 km south of the Himalaya foot-hills and about 3 km east of Pilibhit in Uttar Pradesh. From public health point of view, increase in water pollution level due to dumping of .unwanted substance into water bodies has created a big necessity for assessment of river water quality used for drinking and domestic purposes. Water quality is one of the keyconcerns for human beings, due to its direct link with all living things. Besides, urbanization, dumping of religious materials viz. flowers, food, sweets, clothes etc. in the river has increased the pollution level and deterioration of river water quality of the river Gomti which is also a major source for drinking/ portable water supply for urban population. Unprocessed industrial and household waste along with sewage are disposed directly into it through gutters has increased the water contamination to a great extent. Festivals are an integral part of ritual and diverse cultural heritage of India.

Months from September to November are full of Hindu festivals. Navaratri, Dussehra, Ganpati utsav, Deepawali are some of the famousHindu festivals celebrated during this tenure. On these occasions, every year, thousands of small to large idols of Lord Ganesh,Goddess Durga and many more are engrossed in the river water. Innumerable biodegradable and non-biodegradable materials viz.plaster of paris, papers, clay, colors, jutes, clothes, wooden frame, thermocol etc. are present in them].Reports on presence of heavy metals like lead, chromium, nickel, cadmium and zinc to a significant extent are also available .A number of persistent colors and toxic chemicals leach from these idols and strewin the river water. These toxic non-biodegradable chemicals enter into human bodies through food chain. In the present work, various physiochemical studies have been made in order to find out some possible methods for water quality improvement and its protection

#### **2. SAMPLING SITES**

Three sampling sites were selected namely Red pakka pul(I), Hanuman Setu (II) and Indira Dam(III). Samples were collected and analyzed.

#### **3. MATERIAL AND METHODS**

Three sampling sites were selected which cover the residential Lucknow region namely Red pakka purce 55. G Hanuman Setu (II) and Indira Dam(III). The samples of water were collected from both the banks and middle stream of the river on each site. For collection of water sample, sampling bottles were soaked overnight in 10% HNO3 solution, which were then washed twice with double distilled water and rinsed three times with stream water, leaving the last rinse for five minute to equilibrate. Water samples were collected in acidified PVC bottles. Preservation and transportation of the samples to the laboratory were done following standard methods. (APHA1998). The ice boxes were used during transportation to avoid unpredictable changes in physiochemical characteristics. The containers were carefully filled just to overflowing, without passing air bubbles through sample or trapping air bubbles in sealed containers. Preparation of the containers included washing with detergent, rinsing with tap water, ultrapure water (Millipore) and air dried. Each sample was identified clearly and indelibly by allocating a unique identification number. Color, odor and taste in water are

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/017 Paper Id: IJTRS-ICACCG2020-017

@2017, IJTRS All Right Reserved, www.ijtrs.com

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# DESIGN OF HEXAGONAL MICROSTRIP PATCH ANTENNA FOR BANDWIDTH ENHANCEMENT AND MINITURIZATION

Dr.Richa Gupta<sup>1</sup>, Dr. Arti Vaish<sup>2</sup>, Antim Dev Mishra<sup>3</sup> E-Mail Id: artivaish@ansaluniversity.edu.in

### <sup>1</sup>Department of Electronics and Communication Engineering MSIT, New Delhi, India <sup>2,3</sup>Department of Electronics and Communication Engineering, Ansal University Gurgaon, Haryana, India

**Abstract** - This paper presents the design and performance of inset feed hexagonal patch antenna for miniaturization, bandwidth enhancement and circular polarization. Along with the novel geometry, a 2X1 array and 2X2 array of hexagonal patch has also been implemented. The prototype of the antenna has been designed and simulated on ADS (Advanced Design System). By implementing the hexagonal geometry, impedance bandwidth has improved by 62.8% and the gain has been enhanced by 14.2%. The designed antenna resonates at a frequency of 5Ghz.Nowadays, this frequency band is being used extensively in various applications which primarily include Wi-Fi and WLAN, which earlier was used in 2.4 GHz frequency band. A comparative study of hexagonal geometry with rectangular geometry arrays has been presented in terms of impedance bandwidth, gain and polarizations. The designed hexagonal array antennas have been fabricated by CNC Engraver while the rectangular geometry arrays by photo-lithographic method. The design is fabricated and tested on Vector Network Analyzer (VNA). It is found that the stimulated results are in close proximity with the fabricated ones. The antenna design can be used in modern day mobile communication due to its optimized area coverage along with enhanced bandwidth.

Keywords: Impedance Bandwidth, Circular Polarization, Gain, CNC Engraver, Vector Network Analyzer.

#### **1. INTRODUCTION**

The field of wireless communication is one of the fields which are being extensively researched upon, in order to make communication more efficient and accurate. For wireless communication systems, antenna plays a crucial role in collecting and emitting signals [1]. The recent developments in low cost and compact wireless communication systems have largely been possible due to advent of antennas with smaller dimensions which are capable of delivering output with high efficiency.

In recent years compact antenna with multiband characteristics is topic of interest for research work for application in wireless Communication system. One of the techniques to design a compact microstrip antenna [MSA] is cutting slots or slits on the radiating patch to increase the length of the patch of the surface current. Some articles on the design of compact MSA were studied by the author [1-4].

MSAs are used in a broad range of applications from communication systems to biomedical systems, primarily due to several attractive properties such as light weight, low profile, low production cost, conformability, reproducibility, reliability, and ease in fabrication and integration with solid state devices. Among various antennas employed, microstrip patch antennas are the most prevalent ones and are being extensively used for numerous applications due to its alluring features which include low cost, ease in fabrication, low profile, conformity and most importantly smaller in dimension [2].

The architecture of microstrip patch antenna consists of metallic strip or a patch mounted on the dielectric over the ground plane. It is a low profile antenna and is conformable to planar and non planar surfaces. It is protean in terms of polarization, resonant frequency, patterns and impedance. Conventional microstrip patch antenna suffers from narrow bandwidth which limits its performance in various communication systems. Numerous numerical methods have been reviewed which have a profound effect on the bandwidth and gain of the microstrip patch antenna, so that the broadband criteria can be met.

Varying the geometry of patch is one of the methods which are effective in enhancing the bandwidth of the antenna. Microstrip patch antennas can be designed in various shapes, in which most frequent ones used for analysis are rectangular, circular, triangular and elliptical [3]. Further more, miniaturization has been a topic of interest for a long time, especially in today's era where each device is getting more compact with every passing day [4]. Previously, various miniaturization techniques have been implemented but at the cost of other antenna parameters. This provpresents a hexagonal geometry of a patch using an inset feeding technique which minimizes the overall coverage area and also enhances the bandwidth and gain of the microstrip patch antenna. In addition to miniaturization and enhanced bandwidth, hexagonal geometry also provides circular polarization [5].

The antenna has been designed for the resonant frequency of 5GHz.Nowadays, this frequency band is being extensively used, majorly for applications like WIFI and WLAN [6].These applications previously used frequency band of 2.4Ghz but now it is being switched to 5GHz frequency band for better performance. The design along with the comparative analysis of 2X1 array and 2X2 array, using hexagonal geometry, with that of rectangular array has also been presented. In section I, a brief summary of wireless communication and its needs has been presented along with the introduction of microstrip patch antenna .Section II presents the mathematical modeling of hexagonal patch

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/001 Paper Id: IJTRS-ICACCG2020-001

@2017, IJTRS All Right Reserved, www.ijtrs.com

a

pg. 1

pg. 23

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India

International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# INTRODUCTION TO INDUSTRIAL MATHEMATICS

### Anjali Singh<sup>1</sup>, Deepanshi Vij<sup>2</sup>, Dr. Manimala<sup>3</sup>, Ms. Sherry Verma<sup>4</sup> E-Mail Id: <sup>1</sup>anjalisingh.btech18@ansaluniversity.edu.in, <sup>2</sup>deepanshivij.btech18@ansaluniversity.edu.in, <sup>3</sup>manimala@ansaluniversity.edu.in, <sup>4</sup>sherryverma@ansaluniversity.edu.in School of Engineering and Technology, Ansal University, Gurugram, Haryana, India

**Abstract-**There is no question that mathematics has played a leading role in the development of physics and engineering through the last century. However the direct participation of mathematicians in solving the problems of industry is the new trend, so called "industrial mathematics". Industrial mathematics has developed as a new profession. In this report, we will talk about the concepts of industrial mathematics and its importance in the society. **Keywords**: industrial mathematics.

### 1. INTRODUCTION

Mathematics is one of the oldest and fundamental sciences. The word 'mathematics' has been derived from the Greek word mathema meaning 'knowledge, study, learning'. It has no generally accepted definition but deals with logical reasoning and quantitative calculation.[3]

Mathematician is a person who uses the exclusive knowledge of mathematics in their work. The education of mathematicians focuses on mathematics itself as a way to understand the relationship between abstract objects. Some mathematicians explore theories while others apply them to solve daily problems. They try to be as precise and concise as they could while solving a problem. When asked to solve a problem, usually a person will think of the ways they know that can be applied to solve the problem and would back-off if he is unable to find such a way. But a mathematician will abstract the problem into a mathematical problem and apply mathematical abilities to solve it. If he is unsuccessful in solving the problem, he re-thinks of the models and takes a different approach. He continues until he is successful in finding the solution.[1]

Modern mathematics is broadly divided into Pure Mathematics and Applied Mathematics. The difference between the two is based on their application. [4] Pure Mathematics is a branch of mathematics that is studied, and principles are developed for the sake of mathematics rather than their immediate use. In other words, it is based on number theory. The Fibonacci Series is an example of this, which has almost no significant use to mankind. On the contrary, Applied Mathematics is a branch of mathematics that is involved in the study of the physical or biological world, that is, studied purely for application purposes. It is based on numerical methods, having extensive use in Computer science and engineering.

### **2. INDUSTRIAL MATHEMATICS**

Mathematics is the most versatile of all the sciences. It is uniquely well placed to respond to the demands of a rapidly changing economic landscape. Unfortunately, academic mathematics is insufficiently connected to mathematics used in the industries, making it difficult to build closer connections to industry. Hence, academic mathematical science must strike a better balance between theory and application.

Industrial Mathematics is a new research field in mathematics, which deals with the use of mathematical modelling to solve industrial problems, thereby serving as the foundation for developing future technologies. It comprises of a mixture of pure and applied mathematical modelling such as Partial Differential Equations, Probability, Statistics, Discrete Mathematics and many more. In other words, it will integrate and reorganize pure and applied mathematical into a volatile form so as to respond to the needs of industrial technologies.

Let us consider a case study of a Mexican company who had complained regarding the noise from the car-seat air for fan blowers. They were having a great loss as their products were returned stating about an undesirable noise. The did not clearly understand what kind of noise was undesirable. Many analysis were made but the noise considered undesirable by the Mexican manufacturing plant was different to what the client plant considered to be. This is where mathematicians rescued them. They measured the noise frequency spectrum with a special microphone and computer, investigated which frequencies were annoying to human hearing, statistically analysed the noise spectrum and revealed which frequency bands were undesirable from the viewpoint of the client company. They then wrote a computer script that could automatically determine if an item is defective or not.[1] This was one of the incidents when industry benefited from the work of mathematicians.

It is evident from the above case study that the ability to effectively use mathematical modelling, simulation, control and optimisation will be the foundation for technological and economic development, helping in achieving better understanding of industrial models and processes.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/010 Paper Id: IJTRS-ICACCG2020-010

@2017, IJTRS All Right Reserved, www.ijtrs.com

## Experimental and Simulation Study of Effects in Etched Patch Antenna with Multi Slots

AMBRESH P AMBALGI<sup>1</sup>, SUJATA S K<sup>2</sup>, ARTI VAISH<sup>3</sup>

Department of Electronics, Mangalore University, Konaje-574199, Mangaluru, Karnataka, INDIA.

<sup>2</sup> Department of ECE, GodutaiEngineering collegefor Women, Gulburga-585103. Karnataka, INDIA.

<sup>3</sup>Electronics dept., School of Engineering & Technology, Ansal University, Gurgaon, Haryana, INDIA.

Abstract: - This paper aims for the design and development of a multi slotted novel patch antenna with multiband characteristics. The work focused on designing a patch, feedline with novel multi-slots on the same patch which can be commonly used in wireless applications. In addition, the analysis shows the effects of the improved antenna properties obtained by etching such novel slots on epoxy dielectric substrate using photolithography process. The paper concentrated on the design aspects of the patch antenna with slot dimensions as a function of operating wavelength ( $\lambda$ ) to get better results. The antennas are implemented with the help of software package V15.4 - Integral Three-Dimension Equation (IE3D) EM simulator. The experimental and simulation findings show the overall required bandwidth of 1120MHz with a return loss of -43dB achieving a gain of 8.39dB with better radiation characteristics.

Key-Words: - Simulation, Integral, Miniature, Multiband, Slotted, Axial, Bandwidth.

Received: February 17, 2020 . Revised: September 4, 2020. Accepted: September 22, 2020. Published: October 6, 2020.

### **1** Introduction

Microstrip antenna (MSAs), is one of special category of antenna in RF, microwave signal communication which plays a significant role in the wireless communication application, because of its numerous advantages of microstrip antennas over the normal antenna. Over decades the designing of the low profile antenna for the communication applications was a fundamental area of research. The multi strip antenna is one such[1]. The literature shows the variety of designs of multi-band MSA characteristics with better bandwidth and more than one functional wireless terminal based on orthopolarized concepts [2-10] recently. Single radiators with Multi-band antennas are desirable in most applications [6]. some of them are Bow tie antenna with meandered slot, U-type slot patch antenna for improved percentage bandwidth (BW), slotted microstrip antenna with miniaturized size and circularly polarized nature, E and U slotted patch etched dielectric material, circular shape asymmetric slotted MSA, slots of ring on patch having dissimilar designs[11-24]. Some of the common demerits of MSAs are small BW ranging between 1-2 %, minimal gain, least power handling capacity. From the Multiple methods of design the novel slot etched patch with direct strip feeding was found to be rare in survey papers and this method proves to enhance various antenna[25-29] parameters. Improving bandwidth, gain and radiation pattern [30-35] of MSA has been important research challenge in the strip line antenna field. A compact, circularly polarized wideband (CP) squared slot antenna for universal ultra-high-frequency (UHF) handheld reader (RFID) applications is proposed [36]. The antenna is a coplanar waveguide (CPW) fed by a feeding line inverted Z-shaped. Through installing four stubs inside the square slot in diagonal directions and two inverted T-shaped wires, broadband CP service, large axial ratio bandwidth and good impedance matching is achieved. The impedance bandwidth estimated < -10 dB ranges from 706 MHz to 1007 MHz (301 MHz, 35.1 per cent). The 3All axial ratio (AR) calculated is 427MHz (745-11-747) MHz, 44.5 per cent). The proposed antenna that Lilike

E-ISSN: 2224-2864

142

-55

SET-31

# Detailed Review of Ball End Magnetorheological Fluid Finishing

Process

ANAND SHARMA<sup>1\*</sup>, ARTI VAISH<sup>2</sup> AND ANSHU SHARMA<sup>3</sup>

<sup>1,2</sup>School of Engineering and Technology, <sup>3</sup>Organizational Behavior and Human Resource

Management

<sup>1.2</sup>Ansal University, <sup>3</sup>O.P. Jindal University

<sup>1,2</sup>Ansal University, Sector -55, Golf Course University, Gurgaon and <sup>3</sup>Narela Road, Sonepat

<sup>1,2,3</sup>INDIA

*Abstract:* For precision finishing of various newly and difficult of finish materials like optical glasses, metals, 3D-printed workpieces etc. Ball End Magnetorheological Finishing (BEMRF) finishing processes has been recently developed. This method utilizes a paste like fluid consisting of a base fluid which can be either water or oil, both magnetic and non-magnetic particles and stabilizing agents if necessary. Rheological behavior of this mixture of magnetorheological (MR) fluid with abrasives changes under the influence of magnetic field which in turn regulates the finishing forces during finishing processes. Present study critically reviews the BEMRF process used for achieving nano-level finishing variety of materials like mild steel, EN-31, copper etc. and the factors influenced this process so far which led to further advancements in this method.

Keywords: Ball End Magnetorheological Finishing (BEMRF), Rehological, Magnetorheological (MR), Abrasives, Finishing forces

Received: May 16, 2020. Revised: October 2, 2020. Accepted: October 20, 2020. Published: October 31, 2020.

### 1 Introduction

Recently, the demand in most industries like the electronics, optical, aerospace, energy sectors, etc. for the precision surface finished goods like dies, molds, optical glasses, artificial implants etc. has grown rapidly as the properties like, frictional losses, component life under loads, and wear resistance are significantly affected by the quality and magnitude of surface roughness. To achieve a high value of surface finish as well as low finishing cost for new materials having high values of hardness, toughness; strength to weight ratio, etc., advanced finishing technologies have to be implemented. A good surface finish could be obtained from conventional finishing processes like lapping, grinding and honing by selecting optimum machining parameters but these processes possess certain disadvantages like creating burrs, residual stresses, subsurface damage, etc., and also limitations for finishing fragile and 3D intricate shaped materials. However, in order to achieve nonometric level of surface roughness value it is difficult and uneconomical through conventional finishing processes. Various advanced precise surface finishing processes have been developed for finishing different shapes and types of materials by controlling the finishing forces exerted by the finishing tool on the workpiece. Some of the controlled finishing force processes are magnetic float polishing [1], magneto-rheological abrasive flow finishing [2], abrasive flow machining [3], flow finishing magnetorheological abrasive

(MRAFF) [4], magnetorheological jet finishing [5], and magneto-rheological finishing (MRF) [6]. In these processes the finishing forces are controlled by controlling the magnetic flux density by using either a permanent magnet or an electromagnet. However, these processes have limitations in respect to the geometries of the products that can be finished and are capable of finishing limited geometries such as concave, convex, flat, and symmetrically spherical shapes. Ball end magnetorheological finishing (BEMRF) another version of MRF is a novel finishing process based on smart fluids having an ability to control the finishing forces which enables it to finish 3D surfaces to nanometer levels [7]. This process addresses the limitations discussed above with various other non-traditional finishing processes working on the principle of controlling finishing forces developed in the recent past. BEMRF process is capable of finishing a variety of materials, either magnetic materials like diverse alloys of steel, etc. [7], or nonmagnetic materials such as glass [8], silicon [9], aluminum, copper [10], etc.

This article focuses on the design and development of ball end magnetorheological finishing (BEMRF) process, various materials finished so far using this technique and numerous factors affecting the finishing of variety of magnetic or non-magnetic complex shaped materials.

ISSN: 2224-3461 163

Volume 15, 2020

SET-32

# **Review Reports on User Authentication Methods in Cyber Security**

### ARTI VAISH<sup>1\*</sup>, ANAND SHARMA<sup>2</sup>, ANSHU SHARMA<sup>3</sup> <sup>1,2</sup>School of Engineering and Technology, <sup>3</sup>Organizational Behavior and Human Resource Management

<sup>1,2</sup>Ansal University, <sup>3</sup>O.P. Jindal University

<sup>1,2</sup>Ansal University, Sector -55, Golf Course University, Gurgaon and <sup>3</sup>Narela Road, Sonepat

<sup>1,2,3</sup>INDIA

*Abstract:* The Internet has merged itself as an extremely ground- breaking stage that has changed the correspondence and business exchanges. Presently, the quantity of clients exploring the Internet is more than 2.4 billion. This enormous group of spectators requests online business, learning sharing, informal organizations and so on, which became exponentially in the course of recent years. Accordingly, it prompts the requirement for security and improved protection. As of late, misrepresentation over the Internet comprises one of the fundamental disadvantages for the across the board of the utilization of business applications. Along these lines, the three imperative security issues occur each day in our universe of straightforward design, even more decisively: recognizable proof, confirmation and approval. Distinguishing proof is a procedure that empowers acknowledgment of a substance, which might be either, a human, a machine, or another advantage, for example, a product program. In security frameworks, validation and approval are two reciprocal systems for figuring out who can get to the data assets over a system. Numerous arrangements have been proposed in the writing, from a straightforward secret phrase to late advancements dependent on RFID (Radio Frequency Identification) or biometrics. This paper gives an outline on existing verification techniques, and its upsides and downsides when planning online assistance.

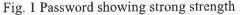
Keywords: Information technology, user authentication, online services, cryptography, biometrics

Received: March 17, 2020. Revised: September 12, 2020. Accepted: October 1, 2020. Published: October 6, 2020.

### **1** Introduction

As far back as two decades, PC frameworks have created at a risky rate. In a wide extent of conditions, such frameworks have transformed into a significant contraption. Affiliations are building frameworks with greater scales than at some other time, and the system with the overall Internet has ended up being fundamental. Nearby this example has come an impact on the usage of PC composes as a strategy for illicit access to PC structures. The web is known as a historic stage that changes the way wherein we grant and perform business trades in current advancement [1]. It has now reached each piece of our lives nearby ascending of additional cutting-edge security risks, arranged to leave towards the experience of annihilations. As shown by the Internet World Stats, as of June 30, 2012, over 2.4 billion customers are using the Internet, and accordingly the numbers no vulnerability will keep growing. Thusly, the presence of information assurances has changed our lives particularly with the information that is available, whereby data can without quite a bit of a stretch be gotten to and controlled [2]. Transmitted information level is logically huge especially twisting up as correspondences that used to simply be finished disengaged, for instance, bank and business exchanges are by and by being done online as Internet banking and electronic business exchanges, and damages on account of such attacks will be increasingly conspicuous. As extending proportions of individual information are surfacing on the Web, it is essential to remain cautious about the threats incorporating the straightforwardness wherein our private nuances can be gotten to. Relational collaboration and online profiles add to this: giving potential gatecrashers a lot of delicate information [3-4]. Insafe reports that more than a fourth of children in Europe have web frameworks organization profiles, which can be revealed, and within excess of 900 million people on Facebook alone, the hazard is expansive.

assword:	********	
itrength:		Strong
ar sing an		



### **2** Concepts Authentication

Before introducing the diverse existing strategies we give a few definitions and ideas. The confirmation procedure suggests various substances

9-55

# LOW COST INTELLIGENT BRAKING SYSTEM

### Aman Dubey, Om Rana, Ikhlas Mukhtar Kalkati, Antim Dev Mishra, Dr. Arti Vaish E-Mail Id: artivaish@ansaluniversity.edu.in

### Department of Electronics and Communication Engineering, Ansal University, Gurgaon, India

Abstract-The general public, policymakers and the automobile industry have developed a growing amount of interest in automotive safety. It is more than explained by the figures on road collisions, where around 1 a year. Thanks to road traffic collisions 2 million people die. This paper introduces a cost-effective crash warning system concept for low-budget cars. Rear-end crashes are typical crash situations, and driver fatigue is a major cause of such incidents and therefore does not respond on time. No security program is a substitution for the most critical safety device of any driver's car. Many vehicle manufactures now use revolutionary technology for a day to help warn drivers to stop crashes and reduce possible impact speed when a collision cannot be stopped. Another such feature is Collision Warning with Automatic Braking where the area in front of the car is constantly tracked with the aid of the long-range sensor and driver is alert in the case of a collision and with the brake assist for collisions with other cars, both driving and stationary. Additionally, if the driver fails to respond given the warning and the potential collision is considered inevitable; brakes are automatically applied to stop the vehicle. This helps to reduce the level of effect and therefore the chance of repercussions. Finally, it was discussed how, using traffic incident data, the utility of these programs can be measured from the real-life safety viewpoint.

Keywords: Crash, Arduino Ultrasonic System, Automatic Braking.

### **1. INTRODUCTION**

The Automatic Braking Collision Warning system is a mix of many innovations. Over the years, vehicle safety has acquired a growing attention from the general public, governments and the automobile industry. Increasing demand from the general population, governments and the automotive market. An effective means of making ongoing progress in the development of safety is a working cycle focused on real-world scenarios and input on the production of this knowledge. This working approach was found to be very successful for the production of passive protection. This research extends this cycle of working towards the production of modern active protection systems. Strong safety programs require a broader field of research and success targets, thereby extending to incident of injuries next to injury defence and adversary vehicle next to host car. The aim of this paper is to address some of the latest innovations in active protection and put them in perspective. Using blinking LED and LCD monitor, the identification of collisions is achieved by using the Ultrasonic sensor and the Stop signal. Braking is achieved by means of mechanical actuator which makes the action extremely fast, thus ensuring safety braking. Prime mover control is cutoff by means of a relay switch to reduce power wastage and split wear. All these devices are operated using Arduino Super 2560 which is a programmed microcontroller to perform the specified function.

### 2. LITERATURE SURVEY

Integrated protection systems can be commonly broken down into two categories:

#### 2.1 Crash Avoidance

Manual braking avoids crash in this system but with this form of system the driver will not be warned. In fact in the case of radars or lasers, there is a very high risk of misinterpreting the signals. So this type of automatic braking isn't so successful.

### 2.2 Collision Avoidance Program

The sensors sense collision possibilities in this program but do not take prompt action. The driver may receive a warning in the form of a signal or a voice call. The device determines a safe threshold distance, and if the driver fails to respond even when the vehicle reaches the area, then only brakes are automatically applied. But if the signals are misinterpreted, there is no question because the brake decision is left to the driver and the brakes are applied automatically only in most emergency situations.

Various innovative steering assistive technologies:

### 2.3 Emergency Brake Assist (EBA)

This is a common term for an automotive braking technology which in an emergency situation increases the braking pressure. Daimler-Benz and TRW / LucasVarity jointly developed the original design. Work at the Mercedes-Benz driving simulator in Berlin in 1992 showed that in emergency circumstances more than 90 per centro of drivers struggle to stop with adequate power. Through measuring the speed and force by which the brake performs an emergency stop, and if the brake performs an emergency stop, and if the brake performs an emergency stop, and if the brake performs over to protect the wheels from locking up.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/040 Paper Id: IJTRS-ICACCG2020-040 @2017, IJTRS All Right Reserved, www.ijtrs.com pg. 44

55

Vol.11 No.2 (2020), 612-621
Research Article

### "Internet of Things Enabled Healthcare Kit"

### Mr. Antim Dev Mishra<sup>1</sup> Dr Naveen Nandal<sup>2</sup>

<sup>1</sup>School of Engineering and Technology, School of Business<sup>2</sup>, Sushant University, Gurgaon, Haryana antimdevmishra@sushantuniversity.edu.in<sup>1</sup> naveennandal@sushantuniversity.edu.in<sup>2</sup>

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

*Abstract*— The Internet of Things (IoT) is a network of intelligent heterogeneous objects that can communicate and share the data. Patients are required to attend the doctor on a daily basis in traditional models of healthcare. Both the patient and the medical personnel can find these traditional procedures inconvenient. The aim of this project is to create a smart IoT-based health monitoring system which have non-invasive sensors to read various health parameters and displays them on an LCD module in real time. The user can also transfer the data to the cloud to be safely stored and can share this data with doctor for treatment. Data can be live viewed from any location on the planet. Since the battery capacity of each system used in this project is minimal, it would reduce the power usage in order to prolong the life of the healthcare kit. The IoT-based hospital healthcare kit developed using an Arduino Uno, ESP8266, pulse rate sensors, blood oxygen sensor, ECG sensor, blood pressure sensor, and temperature sensor is described in this paper. As a result, IoT-enabled systems improve treatment delivery while also lowering costs by continuously collecting and analysing data.

Keywords: IoT, Arduino Uno, Proteus ESP8266, Healthcare, Sensors, Thing-Speak.

### I. INTRODUCTION

Wireless infrastructure has advanced dramatically in recent years. As a result of the need to maintain different industries, the number of people employed is growing. Automation and control are especially important. One of the most recent developments of IoT is in the biomedical field. Better health care is on the rise. Not only in clinics, but also in other locations like our home, office. As a consequence, using a smart system comes with a range of benefits. Furthermore, doctors play a vital part, but the check-up process is very long, as a person must first prepare, then receive an appointment, and finally receive treatment. The check-up reports are then generated later. As a result, working people ignore the check-ups due to long process or put it off. This cutting-edge method saves time. According to my research, residents in rural areas do not have the sufficient health coverage. They still may not have enough medical facilities. A significant number of people goes to hospitals when the illness or fever has progressed to the point of becoming life-threatening. Then, taking into account the quality of care, much of the rural areas medical treatment cost is unaffordable to most individuals.

This project ensures fast and accurate real time health monitoring of a person's health using 5 different sensors and informs the person with his actual health related statistics on his mobile device or PC monitor. The sensors used are powered by Arduino Uno microcontroller which is based on ATmega328P microcontroller [13]. It's clocked at 16 Hz frequency which makes the circuit cost low and efficient. All the sensors are assembled in such a way so that it can wearied on a hand in the form of hand glove. This makes Health Care Kit a wearable Health Care kit. Wearable healthcare Kit would compute data from day to day activities which can be used by physicians to improve diagnosis or treatment.

### II. RELATED WORK

In the field of IoT-healthcare, studies are currently being conducted to provide clinical evidence that raw data obtained from wireless network-connected systems has helped in the diagnosis and prevention of chronic diseases. As a result, many health screening systems are becoming more functional in today's world, including glucose sensors, ECG monitors, pulse audiometers, and blood pressure monitors.

Journal of Thermal Engineering, Vol. 7, No. 4, pp. 823-844, May, 2021 Yildiz Technical University Press, Istanbul, Turkey

### EFFECT OF ALIGNED MAGNETIC FIELD AND INCLINED OUTER VELOCITY IN CASSON FLUID FLOW OVER A STRETCHING SHEET WITH HEAT SOURCE

Renu Devi1, Vikas Poply2\*, Manimala1

#### ABSTRACT

The purpose of this study was to assess the effect of the inclined outer velocity on heat and flow transportation in boundary layer Casson fluid over a stretching sheet. The flow is adopted to have non-orthogonal magnetic field with heat generation in the uniform manner on stretching surface. It has been taken that in both the directions along the xaxis, the sheet is stretched. By applying similarity transformations, the governing equations representing the heat and flow transportation are converted to ordinary differential equations. Runge-Kutta Fehlberg approach was adopted to solve numerically the moulded differential equations with the help of shooting technique. The flow is also governed by the heat source parameter, Casson fluid parameter, magnetic parameter, Prandtl number, aligned angle of magnetic field and the impinging angle parameter. The results revealed that velocity decreases with an increase in Casson fluid parameter, magnetic parameter and aligned angle of magnetic field for the case of outer velocity parameter less than one while velocity increases for the case of outer velocity parameter greater than one because of the inverted boundary layer formation for velocity profile in second case. Also, the fluid temperature increases (for the case of outer velocity parameter less than one) and temperature decreases (for the case of outer velocity parameter greater than one) with an increase in Casson fluid parameter, impinging angle parameter and aligned angle parameter. The results indicate that outer velocity and aligned magnetic field has a significant impact on fluid temperature and velocity. The behaviour of emerging fluid parameters on fluid temperature and velocity are depicted graphically and their effect on local Nusselt number  $(Nu_x)$  and skin friction coefficient  $(C_f)$  are represented by tables. The finding of this study may serve as to control the rate of heat transportation and fluid velocity in many manufacturing processes and industrial applications to make the desired quality of final product. Acceptance of the extant technique used in current study is correlated with the existing outcomes in the literature.

Keywords: Casson fluid, Aligned magnetic field, Outer velocity, Oblique flow, Heat source.

#### INTRODUCTION

Numerous practical importance of flow and heat transfer over a stretching surface in several divisions of manufacturing procedures lead attention of many researchers in such field like aerodynamic shaping of plastic sheet, cooling of metallic or glass plates, polymer processing, condensation processing, manufacturing and stretching of plastic films, extrusion of metal and polymer sheet, artificial fibers, wire drawing etc. Apart from these, the applications regarding the rate of heat transfer in fluid occurs in technological processes like solar energy, petroleum refining and nuclear reactors etc. In industries, metal and polymer involve the drawing of strip which becomes stretched sometime. In such processes, the desired quality of product has not obtained due to uncontrolled rate of heat transfer on the stretched surface. To overcome this difficulty, the outer velocity flow and magneto hydrodynamic (MHD) flow plays a significant role in controlling the heat transfer rate on stretching surfaces and improving the quality of final product.

Crane [1] initiated the work on stretching surfaces by analyzing the heat and flow characteristics over stretching sheet and examined on boundary layer flow behavior over stretched sheet which is useful in many real-life applications like printer ink, condensed milk, glue, sugar, paint and paste etc. Many researchers [2-4] further extended this study by analyzing the impact on flow characteristics in various situations and different surfaces, where theoretical results are covenant with experimental results. Although, in some real-world application like extrusion of sheet, aerodynamic shaping etc. fluid has some prescribed velocity. Many researchers analyzed the effect of the outer velocity and stagnation-point flow over stretching surfaces [5-12]. Mukhopadhyay and Layek [13] study the impact of variable

<sup>1</sup>Department of Mathematics, Ansal University, Gurgaon-122017, India

<sup>2</sup>Department of Mathematics, KLP College, Rewari-123401, India

\*E-mail address: vikaspoply@gmail.com

Orcid Id: 0000-0002-6510-1967, 0000-0002-1573-3210, 0000-0002-7645-3183 Manuscript Received 17 April 2019, Accepted 18 September 2019

Latte

This paper was recommended for publication in revised form by Regional Editor Mehdi Bahiraei





# **REGISTER TO OUR FREE NEWSLETTER FOR UPDATES**

Search here ...

Login

Register Cart 0

Branch Allenstein a Conservation Science and Elemenistation

### Editor-in-Chief

ISSN (Print): 2666-2568 ISSN (Online): 2666-2566

Back Journal - Subscribe

(Ressurch Article)

# Secure Electronic Voting System based on Mobile-app and Blockchain

Recent Advances in Computer Science and Communications

Author(s): <u>Surbhi Dewan\*</u>, <u>Latika Singh</u> and <u>Neha Gupta</u>

Published on: 21 August, 2020

### Page: [2992 - 3002]

DOI: 10.2174/2666255813999200821161058

#### Price: \$65







### Abstract

Introduction: The notion of electronic voting has evolved over a period of time, replacing the traditional system, which was based on paper ballots. Several types of electronic voting systems exist, still the implementation is partial and there is a scope for improvement for making it more secure and user-friendly.

Method In this paper, a proof-of-concept is presented which aims to address the issues and challenges in the electoral system by using the concept of Ethereum blockchain and smart contracts.

Pages: 11

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# ARTIFICIAL NEURAL NETWORK: A REVIEW

Jaswinder Kaur<sup>1</sup>, Neha Gupta<sup>2</sup>

### E-Mail Id: <sup>1</sup>jasukaur@rediffmail.com, <sup>2</sup>nehagupta@ansaluniversity.edu.in

#### School of Engineering & Technology, Ansal University, Gurgaon, India

Abstract- In this paper an introduction of Artificial Neural Network is presented. Learning Algorithms like Supervised Algorithms, Reinforcement Algorithms and Unsupervised Algorithms are discussed. Also, optimization methods like Gradient Descent, Newton Method, Conjugate Gradient Method, Quasi Newton and Levenberg Marquardt are presented.

Keywords: Artificial Neural Network Supervised Algorithms, Reinforcement Algorithms, Unsupervised Algorithms, Gradient Descent, Newton Method, Conjugate Gradient Method, Quasi Newton and Levenberg Marquardt.

### **1. INTRODUCTION**

Artificial Neural Networks are almost used in most of the applications nowadays. It is an expanding field. Researchers from a number of disciplines are attracted to Artificial Neural Networks [1]. It includes fields like neuroscience, psychology, medicine, physics, mathematics etc. [2]. It is applied in wide variety of applications which includes heart attack diagnosis, character recognition, face recognition, speech recognition, cancer diagnosis, image classification, customer segmentation, gaming, market forecasting, classification of mails (spam and non spam) etc. [3].

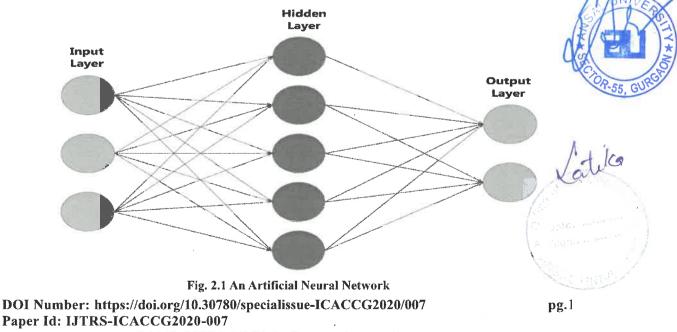
It is a system which processes information same as in case of human beings. It has same structure and principles for operations as in human brain (interconnected cells of brain known as neurons process the information operating in parallel) [4]. The neuron was designed by Rosenblatt in 1958 and named as perceptron [5].

### 2. ARTIFICIAL NEURAL NETWORK

An artificial neural network consists of input nodes, hidden nodes and output nodes [6]. Usually there are three layers namely input layer, hidden layer and output layer.

The number of input nodes and output nodes are decided by the problem to be solved. There is a bias input (B) always set to 1. It provides flexibility in network learning. The input node is given input information like  $X_1$ ,  $X_2$ .... $X_n$ .

A connection weight is the only adjustable parameter in a neural network. During training the values of these weights are increased or decreased for emphasizing the connections between nodes [7]. Weights  $W_1$ ,  $W_2$ ..... $W_n$  are assigned to connections between nodes.



(a) 2017, IJTRS All Right Reserved, www.ijtrs.com

# SOLAR PHOTOVOLTAIC STATUS WORLDWIDE

### Apoorv Sethi<sup>1</sup>, Somya Tiwari<sup>2</sup>

E-Mail ID: <sup>1</sup>apoorvsethi.btech16@ansaluniversity.edu.in,<sup>2</sup>somyatiwari@ansaluniversity.edu.in <sup>1</sup> Student, School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India <sup>2</sup> Assistant Professor, School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

Abstract-Industrial development and population growth has led to a massive surge in global energy demand. Howsoever, along with rapid advances in renewable energy technology, global environmental issues are opening up new possibilities for the use of renewable energy resources. Solar Photovoltaic is the development phenomenon that generates electrical current by directly converting sunlight into electricity by photovoltaic cells (Silicon based cells, doped with other components). As the most plentiful, inexhaustible and sustainable of the renewable energy available to date, Solar Energy also poses a great factor in reliability. Solar energy cannot henceforth be used as a stand-alone source of electricity. Notwithstanding the possession of many benefits, there are some disadvantages to the introduction of this technology, the deployment costs being the biggest downside withdraws people's trust in this technology. In this context, this paper will provide a compiled analysis of the data reflecting the technological progress made in the last few years in the field of mono and polycrystalline thin film photovoltaic (PV) technologies, in addition to reference to any extra work completed. Journey of photovoltaic which started from 1954 now reached to 635GW in the year 2019. Every year new countries are joining the IGW capacity landmark and making this journey more successful. To a very great extent, the worldwide growth of photovoltaics is dynamic and strongly varies by region. Started by William Grylls Adams in 1876 and the continuous evolution of solar photovoltaics, by the end of 2016 a massive increase came, Where the combined photovoltaic potential increased by more than 75 GW, resulting in huge output, adequate to meet 1.8 percent of the total worldwide electricity demand. Through this paper, the detailed data of the development, nation wise, and the steps taken by the countries to enhance growth over the years have been depicted to produce a well-established knowledge of the facts available on the same.

Keywords: Solar energy, solar photovoltaic, global energy, energy resources.

### **1. INTRODUCTION**

Industrial development and population growth has led to a massive surge in global energy demand. Howsoever, along with rapid advances in renewable energy technology, global environmental issues are opening up new possibilities for the use of renewable energy resources. Solar Photovoltaic is the development phenomenon that generates electrical current by direct converting sunlight into electricity by photovoltaic cells (Silicon based cells, doped with other components). As the most plentiful, inexhaustible and sustainable of the renewables energy available to date, Solar Energy also poses a great factor in reliability. Solar energy cannot henceforth be used as a stand-alone source of electricity. Notwithstanding the possession of many benefits, there are some disadvantages to the introduction of this technology, the deployment costs being the biggest downside withdraws people's trust in this technology. To a very great extent, the worldwide growth of photovoltaics is dynamic and strongly varies by region. Started by William Grylls Adams in 1876 and the continuous evolution of solar photovoltaics, by the end of 2016 a massive increase came, Where the combined photovoltaic potential increased by more than 75 GW, resulting in a huge output, adequate to meet 1.8 percent of the total worldwide electricity demand. [1]

### 2. DEVELOPMENT AND UTILIZATION

#### 2.1 Early Day

Development of Solar Technologies began way back in the 1860's by prediction of the upcoming scarcity of coal. Charles Fritts in 1884, built the initial photovoltaic array on the ceiling of a New York(NY) city structure, using 1 percent selenium performance cells. The development of Solar Technologies however went moribund in the early 20th century due to the growing supply of fossil fuel and its usefulness. The electricity and black gold crists in 1973 and 1979 reinvigorated attention towards the development of solar technologies, caused due to reorganisation of energy policies. [2] The installations of solar photovoltaic systems grew expeditiously between 1970 and 1983, however due to the plummeting oil prices in early 1980's, reduced the growth of photovoltaics between 1984 to 1996.

#### 2.2 Further Growth

An aggressive growth of photovoltaic technology was observed between 1992 to 2018. As a result, to which the solar production costs decreased dramatically as automation and financial sources have increased. United States of America has been historically, the leading country in installed photovoltaics for a decade and more, by its total capacity mounting to 77 MW as of 1996, more than any other country at that moment. Japan became the leader, starting from late 1990's until 2005, when Germany took over and entitled itself as the world leader with the production of over 40 GW of total capacity by the year 2016. Howsoever, China surpassed Germany and all the other countries by a massive production of over 100 GW of installed energy by the year 2017. The total established PV capacity reached an all-time high of 512 GW approx. by the end of 2018, out of which about 35% (i.e. 180 GW) were utility-scale plants. Which indicates a 27% growth in energy since 2017 and also contributed to a 7-

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/012 Paper Id: IJTRS-ICACCG2020-012 @2017, IJTRS All Right Reserved, www.ijtrs.com pg. 33

IND

-55

pg. 37

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# THE THREE C's CONSERVE CONSUME AND CARE OF WATER FROM DAILY HOUSEHOLD CHORES: A STEP TOWARDS SUSTAINABLE FUTURE

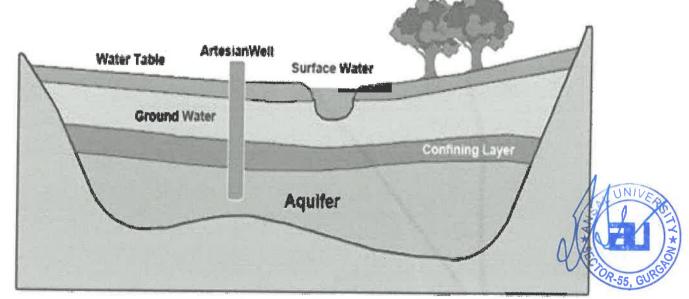
Somya Tiwari<sup>1</sup>, Kanav Bhalla<sup>2</sup> and Ayush Rawat<sup>3</sup> E-Mail ID: somyatiwari@ansaluniversity.edu.in School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

Abstract: Water is one of the main sources of life after air. Industrial development and modernization is happening so rapidly but without water life cannot be imagined. Water is consumed by all of us in different ways in daily life. As earth is covered with 70% of water but still water has globally become a matter of concern. In this paper small steps are discussed to save water. Even the industry that provides us with goods requires a lot of water for production. Some major problems are discussed in the paper which led to scarcity of water. Rapid growing population, that has led to more construction of houses that require a large amount of water. As to deal with all these problems we as engineers have come up with some inexpensive and easy ways to save water from being wasted and making it available and useful for some other purposes. Due to the advancement of technology and science it has been made possible to help take control of such problems very easily. Mentioned below are some ways to save water without investing a lot of money. Making proper pipe connections without leaks can save a lot of water. Not letting the water storage tanks overflow with the help of automated devices. Efficient use of water can be done by wise consumption, conservation and care of water so that future generation can also be benefited.

Keywords: Water Conservation, Consume, Care of Water, Daily Household Chores, automated devices.

### 1. INTRODUCTION

Today almost every person is familiar with the importance and necessity of water in our daily routines. Water is the most essential component for life on earth. All living beings need water to survive. There is a lot of water beneath the ground and large amounts of water are stored in the ground and this groundwater mainly comes from rainfall that penetrates downward from the land surface and the upper layer of the soil is the water. The surface where groundwater is present is called the water table. Below is the diagram of the water table shown in fig. 1.1.



### Fig. 1.1 Water table Diagram [10]

For freshwater, people have to drill holes deep down to have access to clean groundwater. An aquifer is an underground layer in which the soil and rock is present with water below the ground. The water levels change with due course in time due to global warming that changes the weather and rain cycle patterns causing permanent environmental damages.

The pumping of groundwater artificially can have a drastic impact on water levels below in fig. 1.2.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/013 Paper Id: IJTRS-ICACCG2020-013

@2017, IJTRS All Right Reserved, www.ijtrs.com

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India

International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# WASTE TO ENERGY PROSPECT TOWARDS SUSTAINABILITY: A REVIEW

Rohan Sharma<sup>1</sup> and Somya Tiwari<sup>2</sup>

E-Mail Id: <sup>1</sup>rohansharmakky21@gmail.com, <sup>2</sup>somyatiwari@ansaluniversity.edu.in School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

Abstract- This paper is an attempt made to calculate the estimate quantity of solid waste that can be generated in India as well as other countries of the world. This data estimates the generation potential of energy through combustion of solid waste. Huge amount of waste production shows a big problem in many nations. Disposals of waste is done in lands and this gives a rise to an urgent issue related to resource managing consumers. Recycling, safe disposal of waste and using of material with low calorific value comes in waste management to produce energy. This concept of waste to energy is economically good and have environmental benefits and introduce a renewable energy resource as well. Environmental sustainability can be achieved by using waste as renewable resource and shortage in energy sources can be compensated. The drastic change in energy consumption can be seen over few years which is increasing day by day, 261 billion cubic of gas and 85.4 million barrels of oil is being used per day. By the year 2009 the consumption of gas reached to 335 billion cubic feet and same for oil it increased up to 91.2 million barrels, 28% increase in gas consumption and 7% increase in oil consumption was noted in year 2013. In 2015 the oil consumption reached to 95 million barrels, by this data we have an idea that utilization of waste for producing energy to satisfy the increasing demand is very much needed. The main objective of this study is to compare the efforts done by different countries to overcome this huge waste problem as well as to overcome the second huge demand of energy. As we can compare the efforts made by Egypt for the aim to produce energy by managing of waste and efforts done by Indian city in A.P. named as ELURU. Adoption of the best way to solve these huge problems are compulsory as to secure the future of our country.

Keywords: Solid waste, waste production, water waste, recycling, Biofuel and renewable sources.

### **1. INTRODUCTION**

#### 1.1 Problems Caused by Waste

Every year all countries in world suffers from a huge amount of waste produced. This waste causes serious impacts on environment and surrounding landscapes [1]. The waste is categorized in different types like industrial waste, domestic waste, agricultural waste, solid municipal waste etc. on the basis of their structure they can be further classified on sub-categories like solid, semi-solid (organic), plastic and other hazardous waste. Roots, leaves etc. are agricultural waste. Many health, hygiene, air quality and pollution impacts are caused due to different types of wastes dumped at one place without any planning [2].

### 1.2 Overviews on Waste Management

Safe disposal transportation, segregation and processing of solid waste is the beginning of waste management. This is done using a plan of waste to energy processing. After the segregation of the organic from MSW processing is done, which may be composted, recyclable material like glass and plastic must be recycled, and those which can't be recycled but have high calorific value must be directed to profitable products as refused derived fuel RDF which are used as alternating fuel by industries [3]. Production of fertilizers and animal feeds can be generated by using agricultural waste [4]. Used oil and semi-solids can be treated physically and chemically after which they can be reused, or being used by biodiesel production as renewable energy source.

Hazardous and non-recyclable are generally landfilled and incinerated. Waste such as: radioactive, medical, leave tanning etc. though medical waste is separated and useless id disposed [5].

#### 1.3 Need of New Resources and Energy Related Problems

As the population is increasing yearly and there is rapid rise in living standard the demand of energy has been increased is simultaneously the demand of new energy resource have also been increased. As we can see the consumption of natural gas and oil has shown increment from 261 billion cubic feet to 335 billion cubic feet and 91.2 million barrels by 2009. Through 2013 one million barrels. Increase in natural gas and oil respectively around 28 per cent and 7 percent [6]. Further 4.2% oil consumption increment in consumption has been noticed by the end of 2015 as compared to 2013. New energy resources should be introduced as we can see from the above estimate and assume, the shortage that will be occurring in fossil fuel over the upcoming decades.

### 2. WASTE TO ENERGY CONCEPT FOR SUSTAINABLE ENERGY PRODUCTION

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/014 Paper Id: IJTRS-ICACCG2020-014

@2017, IJTRS All Right Reserved, www.ijtrs.com

pg. 40 Lalie

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India

International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# SMART CITIES WITH ENERGY MANAGEMENT EFFICIENCY: A CONCEPT OF ANCIENT TIME

Somya Tiwari<sup>1</sup>, Pratibha Kumari Singh<sup>2</sup> E-Mail ID: <sup>1</sup>somyatiwari@ansaluniversity.edu.in, <sup>2</sup>pratibha.vishen@gmail.com <sup>1</sup>School of Engineering and Technology, Ansal University, Gurgaon, Haryana, India <sup>2</sup>Jettwings Institute, Gangtok, Sikkim, India

Abstract- Present paper explores the concept of smart cities, its features, attributes and ways in which it can manage the energy efficiently for sustainability. Brining case study of ancient cities of Harappa and Mohenjo-Daro, the author suggest that their study could bring ways in which these cities managed resources and maintained sustainability in those time. The paper, thus presents energy efficiency strategies and probable solutions for sustainability that could pave the way for the evolutionary concept of the smart cities.

Keywords: Renewable energy, sustainability, Heritage cities, Smart cities.

### **1. INTRODUCTION**

Indian heritage is a marvel from the perspectives of planning, architecture and energy efficiency of resources for the presence of these monuments till date is a testimony of their robustness and sustainability. These architectures seed the future of smart cities and thus we can say, the heritage cities can provide blue print for what a smart city should stand for. Established on the river banks, these cities provide a successful model for energy efficiency and sustainability. These cities had well planned palaces, residential buildings, towns and villages, dams, water supply system, shopping centers, public spaces and sophisticated drainage systems that ensured their survival and sustainability against the wrath of rainfalls, man-made and natural calamities and disasters.

Mohenjo-Daro and Harappa reveal the sophisticated engineering by the craftsmen that allowed country men to live peacefully and holistically in the quarters and colonies. The history and excavations revealed the effective methods that were used to sustain infrastructures for longer. The history of these cities authenticates, without the sources of renewable energy, it would have been impossible for them to survive for such long. In light of history of these cities, we can understand the still evolutionary concept of smart cities (Raja, 2016).

### **2. SMART CITIES**

The growth in the world's urban population will increase by 75% as predicted by the United Nations, thus, propelling the mass migration to the cities that would need urban authorities to prepare smart cities that could cater to such demands. This unprecedented population and urbanization rise demands construction of smart cities that ensure quality life to its residents keeping the demographic, social, economic and environmental challenges.

The concept of smart cities covers a wide spectrum that include focus on quality of life, communication technology, disaster and waste management, availability of clean drinking water, parks and gyms, health care, public transport, education and public safety. These cities use all the available and advanced technologies in an intelligent, optimal manner that ensures energy efficiency and sustainability for the establishment of urban housing that are integrated, holistic, habitable, brining health, social cohesion and prosperity to the residents (Ejaz et. & 2017, Silva, Khan, & Han, 2018).

Through this paper, we want to establish that the concept of smart cities is not new, thought evolving in nature, for the cities, since beginning have been constructed, built and planned as per the needs, requirements of the citizens, with the most advanced technologies and architectural designs available at that point in time. With the technological advancement and internet of the things and digitization, we are adding new features that add energy optimization, a mandatory feature to be added for sustainability.

Sustainability and energy management are the two key areas that the authors want to cover and highlight in this paper. The presence of India's Heritage cities and rich monuments is a testimony of the brilliant architecture that withstood the tests and tides of time for such long. The natural calamities and disasters have brought changes, however, there robust architect have saved and kept them intact for so long. Further, besides the sustainability, that has the elements of design, layout, use of construction material, selection of construction sites, that is significant, we also under targe without energy, survival is endangered. Therefore, energy management of the resources becomes an important concept for us. These heritage cities thus can provide significant insights and revelations for the smart cities on the questions of planning, building, use of material, design, layout, energy efficiency, to name a few.

### **3. ENERGY MANAGEMENT**

Energy requirements for the smart cities are complex and abundant. Optimal solutions and strategies are thus required to implement them in coordinated way. Simulation methods are used by the stakeholders to understand the overall energy consumption in these cities and thus, to devise probable synergies for their effective usage. Although, to get a

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/025 Paper Id: IJTRS-ICACCG2020-025

@2017, IJTRS All Right Reserved, www.ijtrs.com

INIL

pg. 14 Jelika

Nonlinear Dynamics and Systems Theory, 21 (3) (2021) 315-325



# Flow and Heat Transfer of a Non-Newtonian Power-Law Fluid over a Non-Linearly Stretching Sheet with Thermal Radiation and Aligned Magnetic Field

A. Rani<sup>1\*</sup>, P. Singh<sup>2</sup> and Mani Mala<sup>1</sup>

<sup>1</sup> School of Engineering & Technology, Ansal University, Gurgaon, 122003, Haryana, India.
<sup>2</sup> Department of Mathematics, School of Engineering & Technology, Central University, Mahendergarh, 123031, Haryana, India.

Received: January 16, 2019: Revised: June 7, 2021

**Abstract:** In the present paper the effect of a non-linearly permeable stretching sheet on the solution profile in the presence of thermal radiation and aligned magnetic field has been investigated. A drive has been undertaken to thus highlight the effects of heat and mass transfer of a non-Newtonian power-law fluid over a stretching sheet when the equations are transformed into ordinary differential equations using similarity variables. The transformed equations have been solved numerically using the Runge-Kutta method coupled with the shooting technique. These results are presented graphically for various values of power-law index and for different parameters, viz the stretching parameter, suction parameter, Prandtl number radiation parameter etc.

**Keywords:** *MHD*, *non-Newtonian* power law fluids: stretching sheet; thermal radiation.

Mathematics Subject Classification (2010): 76A05, 85A30.



dalik

\* Corresponding author: mailto:anjukaushik2001@gmail.com

© 2021 InforMath Publishing Group/1562-8353 (print)/1813-7385 (online)/http://e-ndst.kiev.ua315

Progress In Electromagnetics Research C, Vol. 112, 139-151, 2021

# Circularly Polarized Multiple Layer Dielectric Resonator Antennas

Richa Gupta<sup>1, \*</sup>, Ankit Gaur<sup>2</sup>, Sandeep Gupta<sup>3</sup>, and Garima Bakshi<sup>4</sup>

Abstract—A sequence of anisotropic and isotropic materials of dielectric constant 12 and 10 respectively have been stacked alternatively to form a four-layer stack structure with aperture coupled feed mechanism for excitation. Applying this excitation, orthogonal mode pair  $TE_{\delta 21}^{x}$  and  $TE_{2\delta 1}^{y}$  has been excited at frequencies 7.54 GHz and 7.8 GHz, respectively in YZ and ZX planes to generate circular polarization. A circularly polarized bandwidth in the region (7.54 GHz-7.92 GHz) in conjunction with impedance bandwidth in the region (5.23 GHz-5.52 GHz) with a gain of 5.2 dBi has been accomplished. The designed antenna is appropriate for C-band and weather radar applications. The design assessment has been done using Ansys HFSS. The three stages of antenna design are examined. Further, the design is investigated with a 6-layer structure and an 8-layer structure.

### 1. INTRODUCTION

The fields of dielectric resonator antennas (DRAs) have been progressing immensely because of their pluses over conventional antennas such as wider bandwidth, radiation efficiency, and evasion of surface waves. The ever-increasing challenge in the world of wireless communication has led to the design and development of such antennas that can offer multifunctionality with maximum advantages at minimum cost and compact design. Since dielectric resonator antennas have come into the picture, only linearly polarized (LP) DRAs have been explored and operated in depth. In recent times, LP-DRAs are seen to be blended with many losses and multipath interface. These shortcomings of LP-DRA have laid path to the effort in the direction of circularly polarized (CP) DRA. CP-DRA has potential to surmount all the downsides of LP-DRA. It also overpowers the effect on the orientation of transmitting and receiving antennas [1-3]. Most of the circularly polarized antenna have dual-feeding mechanism which increases the size and complexity of the circuit. Numerous procedures like generation of higher order modes to generate circular polarisation [4] have been considered in literature to overcome the need of multiple feeds. Practices like altering the shape of DRA are also used to produce circular polarization. Various geometries like trapezoidal-shaped DR [5], zonal slot/DRA [6], stair shape slot DRA [7], and triangular ring shape aperture [8] are considered to accomplish circular polarization. The difficulty in a design adds to the complexity in manufacture process. Stacked antenna structure can be used to enhance gain [9, 10]. Circular polarization is also achieved through structures discussed in [11-14] and cross slot DRA [15]. Generally, DRA is produced from plastic material like polyvinyl chloride (PVC). The antenna created from this stuff is not appropriate for robust and extended-distance communication applications and consequently requests the need of new tough materials to connect the later generation antenna commitments. Hence, sapphire, being stable, can be used [16]. It has a number of benefits such as light transmission characteristics and thermal insulation. As per the Literature assessment very few works have been done employing anisotropic material [17, 18].

It is the latent option for upcoming smart phones and mobile communication.

<sup>&</sup>amp; Technology, Ansal University, Gurgaon, India.



Lable

Received 27 November 2020, Accepted 8 April 2021, Scheduled 4 May 2021

<sup>\*</sup> Corresponding author: Richa Gupta (richagupta@msl.in). <sup>1,2</sup> Maharaja Surajmal Institute of Technology, Delhi, adit. <sup>3</sup> JECRC University Jaipur, Rajasthan, India. <sup>4</sup> School of Engineering



SJIF Impact Factor 2021: 8.013| ISI I.F.Value:1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 6 | Issue: 6 | June 2021 - Peer Reviewed Journal

### STUDENT FRIENDLY CHATBOT- ANDREA

<sup>1</sup>Sparsh Wadhwa, <sup>2</sup>Tanya Yadav, <sup>3</sup>Mr. Antim Dev Mishra <sup>1.2.3</sup>Ansal University, Gurugram

### ABSTRACT

A chatbot is an artificial intelligence (AI) software that can simulate a conversation with a user in natural language through messaging applications, websites, mobile apps or through the telephone. A chatbot is often described as one of the most advanced and promising expressions of interaction between humans and machines. However, from a technological point of view, a chatbot only represents the natural evolution of a Question Answering system leveraging Natural Language Processing.

#### **I. INTRODUCTION**

A chatbot is an intelligent piece of software that can communicate and performing actions like a human. Chatbots are used a lot in customer interaction, marketing on social network sites and instantly messaging the client. There are two basic types of chatbot models based on how they are built; Retrieval based and Generative based models.

#### **II. RELATED WORK**

In the world of machine learning and AI there are many kinds of chat bots. Some chat bots are virtual assistants, others are just there to talk to, and some are customer support agents. Here we are classifying them in 2 differenttypes namely: -

- Retrieval based Chatbots
- Generative based Chatbots

Retrieval based Chatbots- A retrieval-based chatbot uses predefined input patterns and responses. It then uses some type of heuristic approach to select the appropriate response. It is widely used in the industry to make goal-oriented chatbots where we can customize the tone and flow of the chatbot to drive our customers with the best experience.

Generative based Chatbots- Generative models are not based on some predefined responses. They are based on sequence 2 sequence neural networks. It is the same idea as machine translation. In machine translation, we translate the source code from one language to another language but here, we are going to transform input into an output.

#### **III. METHODOLOGY**

In this project we have built a chatbot using Neural Networks. The chatbot is trained on the dataset which contains categories, pattern, and responses. We have used a special recurrent neural network to classify which category the user's message belongs to and then the program will give a random response from the list of responses.

### Technologies Used

This project is a retrieval based chatbot using: -

Dialog flow- Dialog flow is a natural language understanding platform used to design and integrate a conversational user interface into mobile apps, web applications, devices, bots, interactive voice response systems and related uses.

Flutter- Flutter is an open-source UI software development kit created by Google. It is used to develop applications for Android, iOS, Linux, Mac, Windows, Google Fuchsia, and the web from a single codebase. The first version of Flutter was known as codename "Sky" and ran on the Android operating system.

Dart- Dart is a client-optimized programming language for apps on multiple platforms. It is developed by Google and is used to build mobile, desktop, server, and web applications. Dart is an object-oriented, class-based, garbage-collected language with C-style syntax. Dart can compile to either native code or JavaScript.



#### **RESEARCH ARTICLE**



### Performance investigation of diffractive optical elements effect and rain attenuation on BER of an optical free space communication based system

Gaurav Soni<sup>1</sup> · Shikha Gupta<sup>1</sup> · Arti Vaish<sup>2</sup>

Received: 29 January 2021 / Accepted: 2 June 2021 © The Optical Society of India 2021

Abstract In an optical like free space optical communication system, there always exits a focal or focal reflective optical antenna system working as beam expander. As optical antenna can expand and reshape the narrow and highly collimated emitted beam, it efficiently compresses divergence angle and decreases the influence of beam expansion in space optical communication. However, the optical antenna structure will decrease the transmission power for the obscuration loss caused by the secondary reflective mirror. The design of two-mirror reflective optical antenna at Tx affects the transmission efficiency in space uplink optical communication. An improved scheme with two diffractive optical elements (DOEs) can help reduce central obscuration caused by the secondary mirror of optical antenna. In order to further investigate the influence of the DOEs on communication quality, we give a bit error rate (BER) model based on space uplink optical communication system. The effect of the DOEs on the relationship curves of BER versus typical parameters at different obscuration ratios of optical antenna is the research focus. Typical system parameters include transmission power, receiving diameter, Receiver angle, divergence angle and wavelength. With the demand for data volume and data velocity growing, space optical communication has gained extensive attention. It originated in the 1960s and a large number of ground verification experiments have been carried out since 1980. Compared with

Arti Vaish vaisharti@gmail.com

<sup>1</sup> Apex Institute of Technology, Chandigarh University, Chandigarh, India

<sup>2</sup> School of Engineering and Technology, Sushan University Gurgaon, India

Published online: 30 June 2021



traditional microwave communication, space optical communication has the advantages of small volume, low power consumption, large optical gain, and small divergence angle, strong anti-jamming and anti-interception ability.

**Keywords** Wireless optical communication · Diffractive optical elements · Pointing error · Geometrical losses

#### Introduction

Pointing error and geometric losses can also be calculated for this proposed link and also in other mediums like water, inter satellite communication, different wavelengths, different modulations and in different weather conditions cases. To improve the data rate of the access points, various advanced modulation techniques are used like OFDM, OCDMA, SC-FDMA, CRZ, CSRZ, etc. Two important parameters used to evaluate the communication performance of an optical space optical communication system are data rate and bit error rate (BER) [1-6]. The BER mainly derives from atmospheric turbulence and detector noise. An improved two diffractive optical elements (DOEs) scheme was proposed to solve this problem in space optical communication in our previous work but the results only illustrate that DOEs can improve the efficiency of transmission power, which is not enough for the system designers [7] (Table 1).

Figure 1 shows the FSO communication system block diagram. In which transmitters can be used are LED (Light Emitting Diodes) or Laser Diodes (LD) and receivers can be used are pn photodiodes, p-i-n photodiodes or avalanche photodiodes [8–12]. By using these components data or information is transmitted from transmitter to receiver under the effect of weather conditions. The effect of

Den Later

D Springer

School Of Engly & Technology Sushant Unit

# Investigating the Performance of Smart Buildings and Intelligent Building Management System (BMS)

Jalalzai Zurmatai<sup>1</sup>, Arti Vaish<sup>2</sup>, Paritosh Srivastava<sup>3</sup>, Bhawna Sahay<sup>4</sup> and Rishabh Mahure<sup>5</sup>

<sup>1, 3, 4, 5</sup>Department Of Civil Engineering, Noida International University, Greater Noida <sup>2</sup> School of Engineering and Technology, Sushant University, Gurugram

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

### Abstract

Increasing daily energy consumption, and on the other hand the depletion of its resources have led successors and energy consumers to look for ways. This paper presents the applications of technological advances and new technologies in the field of building is intelligence and energy consumption management in buildings. The use of this technology, in addition to reducing energy consumption, creates appropriate and ideal conditions and increases the comfort of the building's occupants.

Key Words: Smart Building, Make Smart, New Technology, Energy consumption management.

### **1.0 Introduction**

In the year of 1988 an architect named Atkin for the first time defined the smart buildings, and he said; A smart building is aware of what is happening inside and outside of it, and can deal with these events and to create Bring a interesting environment for its users to make the most effective and best decisions at a particular time, in addition to the ability to obtain input information and the ability to respond to the output, Atkin also added the factor of time to his definition [1]. According to this definition, all system decisions in dealing with events inside and outside the building must be made at their own time, and if these decisions are made at another time, it will not be valuable. The word (informed) in the definition of Atkin means the information received and the tools of communication by which the information is entered and collected in the control system. The word (decides) in this definition means all kinds of answers; Like the decision of the system to balance the temperature inside the building, Coordinate building form, all of these are called system output [2-3].

In this research, we discuss these features to clarify the contribution and role of each in smart buildings. In general, a smart building is a building that is equipped with a strong communication infrastructure that can continuously react to and adapt to changing environment systems and still allow building occupants to Use available resources more effectively, increase their security and tranquility. The concept of smart building represents the type of exchange and strong exchange

School Of Engg. 8. Technology Sushant Universit

SET-47

PSYCHOLOGY AND EDUCATION (2021) 58(5), ISSN 1553 - 6939 Article Received: 22th November, 2020; Article Revised: 26th March, 2021; Article Accepted: 26th April, 2021

## A Study Of E-Learning Market In India And Impact Of Covid-19 On Education Sector

### <sup>1</sup>Niharika and <sup>2</sup>Arti Vaish

<sup>1</sup>School of Business, Sushant University, Gurgaon, Haryana <sup>2</sup>School of Engineering and Technology, Sushant University, Gurgaon, Haryana <sup>1</sup>niharikakhatter42@gmail.com, <sup>2</sup>artivaish@ansaluniversity.edu.in

Abstract- Education is a way through which we can learn or acquire knowledge, skills, and habits. It is a basic human right and a powerful tool for development and reducing poverty. E-learning has widened the horizon of the education industry. It provides a new way of learning for students to enhance their knowledge and skills. In this paper, we intended to study the current situation of e-learning in India and the impact of covid19. We will also consider the factors influencing the rise of e-learning, its barriers. In this paper, we have analyzed e-learning as an effective way to educate people. The purpose of this paper is to understand the concept of e-learning and analyze the covid19 pandemic impact on the education sector.

Keywords: E-learning, education, Covid 19 Impact, Swot, Blended e-learning.

### I. Introduction

E-learning refers to acquiring skills and knowledge through an electronic medium. It can be called "technology-enabled learning" It engages learners from different places in an online course.

E-learning platform: The softwarethat provides the virtual infrastructure to conduct e-learning activities.

There can be different elements of an elearning program: audio and video lectures, e-books, presentations, MCQs, quizzes, etc. There are two main categories of e-learning: synchronous and asynchronous.

**Synchronouse-learning**means real-time learning. It is a virtual classroom learning where teachers and students are online and interacting at the same time from different locations. Classes conduct on meet call, zoom call, or other digital platforms that offer features like screen presenting,

www.psychologyandeducation.net

chatbox, etc. Participants can interact with each other and share their ideas during the session.



Figure1: E-learning

Asynchronous e-learningmeans self-paced learning; learners are taking the course by themselves. In this type, teachers and students are not online at the same time. These programs may include pre-recorded audio or video lectures, quizzes, assessments, or other materials. Learners can learn at any time at their convenience.



3619

School Of Engg. & Technology Sushant Universi Could an an Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 484 - 499 Received 24 October 2020; Accepted 15 December 2020

### E-Wallet Market in India and to Identify Various Factors Affecting Customer Preference

<sup>1</sup>Garima Aggarwal and <sup>2</sup>Arti Vaish <sup>1</sup>School of Business, Sushant University, Gurgaon, Haryana

<sup>2</sup>School of Engineering nd Technology, Sushant University, Gurgaon, Haryana <sup>1</sup>garimaagarwal.bba18@sushantuniversity.edu.in, <sup>2</sup>artivaish@ansaluniversity.edu.in

### ABSTRACT

In today's world we come across so many different modes of payments and one of the most commonly used medium is E-wallet which is used by almost everyone around us. There are many E-wallets available in the market like Paytm. Google Pay etc. which are very common among people.

These E-wallets are a very convenient mode of payment making life easier for us. This research paper seeks to find out the impact of different E-wallets and study the consumer preference for the same among a group of a sample of 200 around us. The various factors are studied which are dependent on independent factors which have significant effect on E-wallets. Techniques like 2 sample T-tests and graphs/tables are used in the analysis of the primary data collected. As observed and supported by data it was established that E-wallets are affected by different consumer preferences depending on various factors.

Keywords: E- wallets, Students, Consumer Preference, Payment, Benefits and Obstacles.

### **INTRODUCTION:**

E-wallet is a sort of electronic card which is utilized for any transactions made online using a computer or a smartphone. Its usage is the same as that of a credit or a debit card. An E-wallet must be linked with a person's bank account to make payments.

With the increase in online businesses and purchases, the procedure for making the payments is also changing, compelling it to go digital due to which people migrated from cash- based transactions to plastic cards and now finally to digital wallets or E-wallets. These transactions happen through digital channels either held on digital wallets or in the cloud, or from new advanced payment mechanisms. Since the industry is still developing a large number of names are used for such exchanges. A few examples would be e-money, digital money, micro-payments, amongst others.

In today's world these digital wallets are very popular and tomorrow there will be a direct payment system which will be done through different intermediates like mobile wallets and different companies which are dealing in plastic money in other words transactions which is cashless and which can be replaced with a hard cash notes. (Malik, Kataria, & Nandal\*, 2020)

Numerous E-wallet companies such as "Paytm" and "Free Charge", work through applications in smartphones. E-Wallet permits you to store numerous credit card and bank account numbers in a safe domain and eliminate the need to enter in account information during monetary transactions. When a client registers and makes an E-Wallet profile, access to make payments will be faster without having to enter too many details every time.

PayTM saw a 4.7% increase in its valuation over the past few months. Free Charge multiplied its number of clients post demonetization and moving towards a cashless economy. All the nations over the globe are supporting the E-wallet industry as it helps keep a track of transactions and decrease the number of back money transactions. The worldwide E-wallet market is expected to grow at a CAGR of 15% and reach a market size of USD 2,100 billion by the end of the forecast period in 2023.

Why use E-Wallets?

http://annalsofrscb.ro



School Of Engly, & Technology Colt :: 55, Gurugram

484

SET-49

Ocean Engineering 240 (2021) 109896

Contents lists available at ScienceDirect



Ocean Engineering

journal homepage: www.elsevier.com/locate/oceaneng

# Two dimensional unsteady flow past a square cylinder: Influence of proximal plane wall and power-law index



DCEAN

### Akhileshwar Mani Tripathi<sup>a</sup>, Subrata Kumar Ghosh<sup>a,\*</sup>, Sudipto Sarkar<sup>b</sup>

<sup>a</sup> Department of Mechanical Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, 826004, India
<sup>b</sup> School of Engineering and Technology, Sushant University, Gurugram, India

#### ARTICLE INFO

Keywords: Shear-thinning Vortex shedding Power-law index  $C_L$  $C_D$ 

#### ABSTRACT

A numerical analysis using Ansys Fluent has been done to investigate the flow physics involved in both Newtonian and Power-law (shear-thinning) fluid flow over a square cylinder, placed near a wall with altered gap-toside (G/a) ratios (where G represents the gap between the cylinder and the plane wall and a represents side of the square cylinder). At a constant Reynolds number, Re = 150, numerical calculations for unsteady, incompressible Navier-Stroke (N-S) equation with varying viscosity is carried out by using second-order upwind momentum and least square cell based pressure solver. It is found that for small G/a ratio shear-thinning fluid exhibits vortex shedding which was absent for Newtonian fluid. G/a ratio and power-law index have a strong influence on the coefficient of lift and coefficient of drag ( $C_L$  and  $C_D$  respectively). With the increase in gap-ratio,  $C_D$  decreases and  $C_L$  increases at a constant value of power-law (n) index. Also,  $C_L$  increases and  $C_D$  reduces with a decrease in n at a constant value of G/a. Detailed observation of instantaneous and mean vorticity and streamlines, coefficient of lift and drag, mean pressure distribution over the cylinder and the plane wall and recirculation length have been presented.

#### 1. Introduction

The flow of fluid over the bluff bodies like circular and square cylinders always attracts researchers due to their prominent vortex shedding phenomena and this kind of works have been extensively reviewed by Roshko (1961), Berger and Willie (1972), Norberg (1994) and Williamson (1996). All these reviews are carried out in Newtonian flow environments, although in food, pharmaceutical, polymer and production processes industries several materials are used which display non-Newtonian flow behavior like shear-thinning or shear-thickening (Chhabra and Richardson, 1999). Surprisingly inadequate research works are found in non-Newtonian fluids past circular or square obstacles despite their wide applications in industries.

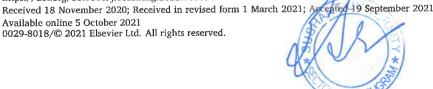
Interaction of fluid flow with bluff bodies may result in separation depending upon the geometry and other parameters of the body. The separated flow can cause the shedding of vortices downstream of the body. This vortex shedding under certain conditions leads to severe issues like noise, vibration and may lead to failure of the structure. Moreover, bluff bodies in a confined environment like a cylinder close to a plane wall or cylinder inside a channel can easily be associated with practical problems like flow over a suspension bridge, pipelines near the ground, flow past heat exchangers near walls, forced-air cooling of board-mounted electronic components etc.

In unbounded conditions, when the fluid flows over a bluff body, symmetrical wake along with periodic vortex shedding is observed. However, in proximity to a plane wall, the bluff body sheds vortices asymmetric in nature and sometimes even non-periodic or no shedding of vortices particularly from the inner shear layer of the cylinder. As per the literature review, the parameters which are having the most influence on wake-boundary layer interactions are Reynolds number, the gap between the wall and the cylinder and thickness of the incoming flow boundary layer profile.

Most of the experiments (Bearman and Zdravkovich, 1978; Angrilli et al., 1982; Zdravkovich, 1985; Taniguchi and Miyakoshi, 1990; Lei et al., 1999; Sumner et al., 2004, 2015; Shi et al., 2010; Sarioglu, 2016; Yang et al., 2018) for wake-boundary layer interactions are performed at higher critical Reynolds number range  $(10^4-10^5)$ . In those experiments, researchers were mainly focused to find out the aerodynamic forces ( $C_L$ ,  $C_D$ ) and their fluctuating components ( $C_L'$ ,  $C_D'$ ) apart from the vortex shedding frequency (*St*). Here the different cases have been categorized in terms of gap-to-diameter ratios (G/D) or gap-to-side ratios (G/a) depending on the cylinder cross-section or in terms of gap-to-plate

\* Corresponding author.

https://doi.org/10.1016/j.oceaneng.2021.109896



Liteke Dean

Schoel Of Eng Sushant Universi Sectur 55, Gurugiam

E-mail addresses: subratarec@yahoo.co.in, subrata@iitism.ac.in (S.K. Ghosh).

# LIGHT WEIGHT SECURITY SCHEME OF CLOUD STORAGE SYSTEM BASED ON ECC (CURVE25519)

Manoj Kumar, Surayya Farhat\*, Mohd Shadab Alam

E-Mail Id: sdmkg1@gmail.com, suryyafarhat@gmail.com, shadab.malikcivil@gmail.com Department of Mathematics and statistics, gurukul kangri vishwavidyalaya, Haridwar (UK), India

Abstract- This paper focuses on the investigation of security of data in cloud computing environment. Intermittent nature of encryption and description scheme into the cloud computing becomes a challenging task and it also affects the security of the cloud data. The proposed model generates and step-up the secure data but also transforms the generated cloud secure data. Furthermore, to increase the security of data and stability of the overall cloud computing environment the cryptographic algorithm is most important for secure file. The cryptography is referring to share the file into cloud, secure manner, private, and integrity in efficient manner as this is related to hacker hack the file from cloud environment. Secure file or information in cloud computing environment in the efficient manner and taking care of all the problems at the time of file sharing is the most important for cryptographic algorithms. The researchers have researched on various algorithms for overcoming the security issues generating problem during the file sharing or uploading and downloading phase. We proposed lightweight scheme based elliptic curve cryptography on the Curve25519. This curve-based solution will be faster, secure and light-weight for storing the info into cloud storage. The suggested model is tested on CloudSim / Cloud Report environment and the results show its superiority over other existing method.

Keyword: Elliptic Curve Cryptography, Grid-computing, Cloud Computing, encryption, Curve25519, End-to-End Encryption.

### **1. INTRODUCTION**

Lightweight cryptography has been a very essential for the last couple of years, induced by the absence of primitives able to run on devices with more less computing power. We can think of wireless sensor networks, RFID tags, internet of things (IoT). At the central of lightweight cryptography is a deal between lightweight and security. So many cryptographers have enlighten these issues by proposing lightweight block cipher, stream cipher, hash functions and latest authenticated encryption in cloud computing.

Cloud computing is the famous choice for the human being and their work for a purpose addition to price saving; grow production, activity and capability, efficiency, and safety. Alternately, carry folder on a hard drive or a local storage device, it feasible using cloud based storage to save all things in a remote database. Considering an electronic device has accession to the network, it has accession to the data and the software programs to run it. Cloud computing is quiet a kind of recent facility still is being used by distinct organizations from major corporations to small industry, nonprofit able to the government agencies, and balanced individual costumers. Up till now, with the stopping the hacking of data and over the top in faster computing services, Cloud computing innovation is emerging as one of the promising sustainable internet services. By the end of 2019, most of IT companies switching into cloud environment. Most of the companies are to reduce their maintainability cost of important data records. It also affects the security of the company's data. This brings the secure cloud environment showcase development in the coming years [1-3].

Curve25519 uses a fast curve for key exchange scheme for lightweight devices in cloud computing. Secure cloud environment developed from ECC encryption system is the key source of sustainable secure model which includes just about more secure data storage and doesn't devour any secure data source [4–6]. The public key of the receiver can be used with the temporary private key to derive a symmetric key such as an AES (Advance Encryption Standard) key. This key can be used to encrypt the data. Then the data is send together with the temporary public key. Then this key can be used with the static private key to derive the same AES key, which finally can be used to decrypt the data. This way of using Diffie-Hellman key agreement to keep data confidential is called IES (Integrated Encryption Scheme) or ECIES (Elliptic curve Integrated Encryption Scheme) when it is used over Elliptic Curve.

This paper exhibits the investigation on security (with the help of ECC curve25519) and confidentiality of data for the purpose of secure data storage of a system associated with cloud computing environment [7]. This paper presents one method, known as the novel secure model for data storage in confidentiality and security associated with cloud environment [8]. This novel model data storage scheme also provides the privacy of users that registered at the cloud environment. Furthermore, it improves the data security quality of the data and reduces the threats.

### 2. BACKGROUND OF CLOUD COMPUTING

The definition of cloud computing model, given by the NIST [9], is universally accepted, as "a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction." The cloud term extracted from network layout that was

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/034 Paper Id: IJTRS-ICACCG2020-034 @2017, IJTRS All Right Reserved, www.ijtrs.com pg. 1

UNIVE

UNIV

pg. 17

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# ANALYSIS OF ALIGNED MAGNETIC FIELD IN CASSON FLUID PAST A SHRINKING SHEET

Renu Devi<sup>1</sup>, Vikas Poply<sup>2</sup>, Vinita<sup>3</sup>, Manimala<sup>4</sup> E-Mail Id: <sup>1</sup>renu15dahiya@gmail.com, <sup>2</sup>vikaspoply@gmail.com, <sup>3</sup>vini252011makkar@gmail.com <sup>4</sup>manimala@ansaluniversity.edu.in <sup>1,4</sup>Department of Mathematics, Ansal University, Gurgaon, Haryana India <sup>2</sup>Department of Mathematics, KLP College, Rewari, Haryana, India <sup>3</sup>Department of Mathematics, SoBAS, GD Goenka University, Gurugram, Haryana, India

**Abstract-**This article deliberates the impact of aligned MHD flow in a Casson fluid on heat and flow transfer. The influence of various fluid parameter like Casson fluid parameter, magnetic parameter, Prandtl number, aligned angle parameter. The governing partial differential equations produced the heat and flow transportation are moulded to ordinary differential equations by considering similarity transformations. The scientific results of the differential equations have been figure out by the Runge-Kutta Fehlberg rule with the help of shooting technique. The diversity in behavior of emerging parameters characterized graphically and their results have been discussed through table. **Keywords**: Casson fluid, Aligned MHD, Shrinking sheet, Boundary layer.

### **1. INTRODUCTION**

Stretching sheet problems under the influence of boundary layer flow becomes a part of attraction for many researchers due to its mathematical simplicity. On the other hand, there is vital application of stretching sheet in industries as well as in engineering areas like metal spinning, polymer processing and drawing of plastic film. [1]–[4] shows the effect of boundary layer flow over stretching sheet.

During research stretching sheet becomes part of study from many years ago, after that shrinking sheet takes a concern form many researchers. Literature for flow towards shrinking sheet is limited as comparative to stretching sheet. Still after this limitation there are many applications of flow over shrinking sheet such that polymer sheets, manufacturing of filaments, glass-fiber and paper production whereas wide area of application chemical engineering and manufacturing industries also considered. Miklavcic and Wang [5] investigates characteristics of flow over shrinking sheet with suction effects while Fang and Zhong [6] discussed the effect of boundary layer flow with arbitrary velocity flow. Khan et al. [7] analyzed the heat transfer effects on horizontal stretching/shrinking sheet.

Stagnation flow exits due to its importance in boundary layer flow. Problem is observed in case of stretching and shrinking balloon. It is noticed that solutions does not exists due to boundary layer flow, so after adding the effect of stagnation flow on boundary layer make possibility of similarity solution that gives exact results. Wang [8] considered the effects of stagnation flow over shrinking sheet whereas [9]–[12] all concern with heat transfer analysis of boundary layer flow with stagnation point over stretching/shrinking sheet. Mahapatra and Nandy [13] taken unsteady stagnation point flow whereas Lok and Pop [14] explained about unsteady separated stagnation point. On the other hand, Mahapatra et al. [15] described oblique flow. Rosali et al. [16] further investigates their study in porous medium. Zaimi and Ishak [17] used permeable stretching/shrinking sheet.

Magnetohydrodynamic (MHD) is that term in which there is existence of magnetic field on electrically conducting moving fluid. Its applications make this area special in research field for example electromagnetic pump, designing of heat exchanger, accelerator and generator. It was observed that magnetic field strength affect the viscous fluid flow as discussed by [18]–[22]. Study of stagnation point with MHD fluid flow properties done by [23] while an important part of flow which is oblique MHD flow was expanded by Lok et al. [24]. Problems related to MHD boundary layer were investigated by [25] and [26]. Bhattacharya and Krishnendu [27] performed the heat transfer and MHD flow with radiation effect in presence of heat source/sink and suction/injection. Chauhan and Agrawal [28] extended their study for shrinking sheet as well as porous substrate plate.

Casson fluid is a category of non-Newtonian fluid which has properties of shear thinning fluid that is performed by yield stress and makes the fluid flow possible otherwise fluid seems like a solid. Sauce, jelly, soup and honey are some examples of viscous fluids that are added in casson fluid whereas human blood is most appropriate example of Casson fluid which is main part of bio-medical field. Therefore, Sheikh and Abbas [29] includes Casson fluid to solve heterogeneous and homogeneous solutions.

Up to our knowledge, no study has been carried out so far to study; the flow and heat transportation on Casson fluid along with aligned MHD past a shrinking sheet. The motive of current assessment is to analyze the aligned MHE effects on Casson fluid.

### 2. MATERIALS AND METHODS

Steady 2D Casson fluid flow of a non-compressible, viscous, electrical conducting fluid on a shrinking sheet is x-55, x=55, x=55

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/0036 Paper Id: IJTRS-ICACCG2020-036

@2017, IJTRS All Right Reserved, www.ijtrs.com

### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# OUTLINE STUDY AND DEVELOPMENT OF WASTE BIN AND WASTAGE RECYCLING SYSTEM IN INDIA

Abhishek Dimri, Apoorva Nautiyal, Dr. Arti Vaish E-Mail Id: artivaish@ansaluniversity.edu.in School of Engineering & Technology, Ansal University, Gurgaon, India

Abstract-You can use tech for almost everything today-including removing the trash. With intelligent waste management technology, companies can track their trash more closely than ever before. Smart waste collection systems not only can help cut costs, but they can also help to reduce the environmental impact of your company. Garbage disposal has never been so high-tech, from garbage sensors to self-sorting garbage canisters. The Ebin waste management system is a smart waste container that uses a camera, sensors and artificial intelligence to automatically identify, sort and compress waste. When the tool determines the content, form and color of the waste, it is dispersed inside the container-plastics, paper or glass-into the appropriate bin. The waste is then compressed, so that the overall amount will be up to five times smaller. A self-sorting waste bin automatically notifies the waste disposal service once it has been filled in. It allows for optimization of collection routes to increase fuel efficiency. A waste management system not only addresses the issue of unsuitable waste sorting but it also monitors and sends data about the collected waste to an automated cloud. Your company will then use this knowledge to identify trends of customer use and decide more environmentally friendly alternatives for the product.

Keywords: Ebin waste management system, ebin, user-friendly technology.

### **1. INTRODUCTION**

Waste management is just about the one thing every city government does for its citizens. Although the rates of operation, environmental effects and costs differ considerably, solid waste management is undoubtedly the most critical municipal operation and is a prerequisite for other municipal behavior. The amount of municipal solid waste (MSW), one of the most important by-products of an urban lifestyle, is growing even faster than the rate of urbanization as the world hurts to its urban future. Ten years ago, 2.9 billion urban residents generated approximately 0.64 kg of MSW per person per day (0.68 billion tons per year). The study estimates that these amounts are now supplying 1.2 kg per person per day (1.3 billion tons per year) to approximately 3 billion people. This is projected to grow to 4.3 billion urban residents by 2025, producing around 1.42 kg / capita / day solid industrial waste (2.2 billion tons / year).

As the world begins to re-open it introduces a new way of life. Everyday activities and objects are reconfigured to adhere to protocols of social distance and provide a secure way to return to "business as normal" As a result, demand for products is that which improve safety in public places.

Bin-e identifies the form of waste automatically, too. It uses a proprietary method to classify the object, using artificial intelligence algorithms. It then segregates the waste into the appropriate fraction, compresses it and interacts with the consumer through an integrated screen. It also has the ability to monitor one or more devices via mobile app.

Contactless Bin-e is a new version of Bin-e, (a) device that will automatically sort and compress the recyclables, "To make waste management simple and effective it incorporates innovative Al-based identification, fill level control and data processing.

The Bin-e automatically detects segregates and compresses waste. This is based on a method of object recognition, which uses algorithms for machine learning and artificial intelligence. In addition, Bin-e has a fill control sensor and automatically notifies the waste disposal company when one of the bins inside is loaded. It has an Internet of Things connection.

Bin-e increases the amount of energy produced and reduces the amount of waste that goes into landfills. It turns waste management into an integrated framework to make the road to a circular, sustainable economy easier.

### 2. INDIA'S CHALLENGES IN WASTE MANAGEMENT

The laws regulating waste management in India are based on the values of "sustainable growth," "caution" and "polluter pays" Such standards enable municipalities and commercial enterprises to behave in an environmental friendly and ethical manner.

The increase in waste generation as a by-product of economic development has led to various subordinate laws regulating the way waste is disposed of and dealing with waste generated under the Environment Protection Acts 1986 (EPA) umbrella legislation.

The country faces major waste management problem with rapid urbanization. More than 377 million urban residents live in 7,935 cities and towns, producing 62 million tons of solid municipal waste per year. The waste is collected just 43 million tons (MT), 11.9 MT is processed and 31 MT is deposited in landfill sites.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/038 Paper Id: IJTRS-ICACCG2020-038

@2017, IJTRS All Right Reserved, www.ijtrs.com

pg. 31

R-55, GU

#### ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# **CONVERTING SOUND ENERGY TO ELECTRICITY**

#### Satvik Sawhney<sup>1</sup>, Yash Sharma<sup>2</sup>, Bhavika Parashar<sup>3</sup>, Manimala<sup>4</sup>, Sherry Verma<sup>5</sup> E-Mail Id: <sup>1</sup> satviksawhney.btech18@ansaluniversity.edu.in, <sup>2</sup> yashsharma.btech18@ansaluniversity.edu.in, <sup>3</sup>bhavikaparashar.btech18@ansaluniversity.edu.in, <sup>4</sup> sherryverma@ansaluniversity.edu.in, <sup>5</sup>manimala@ansaluniversity.edu.in

### School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

Abstract-Noise Pollution is an everyday reality of a developing economy. This project seeks to convert the decibel levels of the unwanted noise to useful energy, serving 2 purposes: Working as a sustainable energy source that stores the electrical energy for future use and also indicating the noise levels in an area using a microphone and Arduino. The sound vibrations cause waves of pressure which get translated into electrical energy with the help of Piezoelectric sensor. This energy passes through a bridge rectifier and a capacitor and is finally stored in a Lithium ion battery for future use while also displaying the decibel levels (dB) and verifying it on an app called "Sound Meter", achieved with the help of Arduino. This is a sustainable source of energy and is highly cost effective making the product affordable to the masses.

This low cost device can be securely put in places encountering high level of sound. Airports, Industries, traffic intersections will provide the arena for this device to produce energy as well as serve as an indicator of noise pollution levels.

Urban arears, hospitals etc. can use this device to manage the sound pollution by tacking the data obtained. The applications of this product are endless as it serves as an inexpensive decibel-meter & a power bank. The product can easily be made handy to masses and corporations alike.

Keywords: Arduino, Arduino IDE, Microphone, Piezoelectric sensors, Decibel Level, Sound Meter App, Voltage Regulator, Capacitors, Diodes, Lithium ion battery.

### **1. INTRODUCTION**

Electricity is a secondary source of energy that is it is neither a renewable nor a non-renewable resource. It is obtained by primary source of energy such as wind energy, natural gas, solar energy, coal etc. In India the electricity sector is largely operated by fossil fuels. India holds the third rank in production as well as consumption of electricity. According to featured data of 2019-2020 fiscal year 72% of countries electricity was generated with the help of coal. India's electricity power consumption is expected to increase by 10 percent by annually over next 10-15 years.

So as the requirement of electricity manifold in coming decades, we will be discussing a new dimension that is how with the help sound energy electrical energy can be generated.

### 2. LITERATURE REVIEW

Sound is a mechanical energy and travels in the form of waves. Sound energy propagates in form of longitudinal wave in medium like liquid and gases whereas in solid medium its waves travel both in longitudinal as well as transverse manner.

Most of the sound around us is unpleasant and undesirable i.e. sound waves are present in the form of noise. Noise pollution is invisible danger. Noise pollution impacts millions of people on a daily basis. Sounds above the levels of 85 decibels are harmful for humans as well as animals lining around. Humans exposed to loud noise can develop diseases such as high blood pressure, sleep disturbances, stress and heart disease. [1]

Animals use sound for a variety of reasons, including to navigate, find food, attack mates, and avoid predators. Noise pollution makes it difficult for them to accomplish these tasks, which affects their ability survive. The major cause of rising levels of noise pollution in most megalopolis is due to lack of urban planning and bazillion running vehicles on the roads. [1]

This form of energy which is present in abundance can be channelize to a beneficial source energy using suitable and appropriate technology. Sound is a mechanical energy and can be converted to electrical energy as per the law of thermodynamics.

Piezoelectricity is the ability of the material to develop electric charge in response to the applied mechanical stress (direct piezoelectric effect) and vice-versa (inverse piezoelectric effect). Presently known materials that consist piezoelectrical properties are, naturally occurring Berlinite, Quartz, Cane sugar, Rochelle, Topaz, Tourmaline eike man-made crystals are Gallium orthophosphate (GaPO), Langasite (La<sub>3</sub>Ga<sub>5</sub>SiO<sub>14</sub>). Artificial piezoelectric coran include lead zirconate titante, lead titanate, potassium niobate, sodium niobate, zinc oxide etc. There were constructed polymers that also possess piezoelectric properties. They are polyvinlydene fluoride (PVDF) and its copolide's was polyvinyldene fluoride-trifluoro ethylene (PVDF-TrFE), polyvinyldene fluoride hexafluoro propylene, out R-55, G Nylons, Polyvinyl chloride (PVC), lead zinc niobate-lead titante (PZN-PT), lead magnesium titanate (PMN-sPT) single crystals, etc. Piezoelectric materials are crucial and necessary elements for conversion of sound energies to electricity. [2]

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/037 Paper Id: IJTRS-ICACCG2020-037

@2017, IJTRS All Right Reserved, www.ijtrs.com

UNIVA

UNIV

R-55, G

# OPTOELECTRONIC AND SENSING APPLICATIONS OF PLASMONIC SILVER NANOPARTICLES

Isha Saini<sup>1</sup>, Himanshi<sup>2</sup>, Meena Yadav<sup>2</sup>

\*E-mail Id:<sup>1</sup>ishasaini@ansaluniversity.edu.in, <sup>2</sup>himanshigupta89@gmail.com,

<sup>2</sup>ymeena12@gmail.com

School of Engineering and Technology, Ansal University, Gurgaon, Haryana, India

Abstract-In recent time, nanoparticles of noble metals like gold, silver have drawn a considerable interest of researchers due to their various applications such as in sensors, electronic devices, solar cell, semiconductors, biosensors etc. In the present review article, the main focus is on silver nanoparticles (Ag NPs) which are widely used due to their unique properties such as optical, electronic, catalytic properties which are shape & size dependent. The interaction of light with silver nanoparticles can give rise to collective oscillations of the free electrons commonly known as surface plasmons. The surface plasmon resonance band (SPR) for silver nanoparticles occurs in the visible region of electromagnetic spectrum and this property has been exploited in a number of applications. This paper highlights the various optoelectronic and sensing application of silver nanoparticles.

Keywords: Silver nanoparticles, Surface Plasmon Resonance, Optoelectronic properties, Sensors.

### **1. INTRODUCTION**

In the past few decades, the world has seen a tremendous growth in the application of nanoscience and nanotechnology, largely due to the special properties that the nanomaterials possess. This is primarily due to their small size and, thusthe exceptional surface area of these materials [1] [2]. In a bulk material, the properties of the material are independent of size and are dependent only on chemical composition. As the size of the material is reduced to the nanometer range, the electronic structure is altered from the continuous electronic bands to discrete or quantized electronic levels. As a result, the continuous optical transition between the electronic bands becomes discrete and the properties of the nanomaterials become size dependent. Nanoparticles of noble metals like gold, silver, platinum and palladium are used in many fields. Ag-NPs, in particular, has attracted researchers due to its unique properties like high thermal and electrical conductivity, surface-enhanced Raman scattering, chemical stability, catalytic activity, and nonlinear optical behavior [3]. One other reason thatAg NPs are gaining considerable attention is also due to their significant surface plasmon resonance (SPR) property. The surface plasmon resonance (SPR) is the coherent motion of the conduction band electrons caused by interaction with an electromagnetic field [4]. This fascinating optical response of silver nanoparticles has been attracting continuous interest of scientist and technologists since long. Due to this extraordinary optical feature, these materials have large number of applications in photonics, sensors, colour filters etc.

The size and geometry of Ag-NPs are highly dependent on the method of its synthesis. Numerous methods of synthesis of Ag NPs have been developed due to its intense use. These methods include physical, chemical and biological methods of synthesis. Physical methods are evaporation/condensation, laser ablation and thermal decomposition. Also silver salt can be reduced to silver nanoparticles using chemical and biological reducing agents. Chemical methods are most widely used due to their simplicity and cost effectiveness. Experimental conditions like pH, temperature, reactants and nature of stabilizers are important factors as they control the size, shape, stability, morphology and color of the nanomaterials [5] [6].

Silver nanoparticles are used in LED, Display devices, catalyst and sensors [4]. Numerous gas sensors have been fabricated to sense the gases like hydrogen, ammonia, oxygen and hydrogen peroxide. In these sensors, silver nanoparticles in the form of nanoparticles or nanocomposites have been extensively used with other materials. Ag NPs enhances the properties of sensors such as response time, selectivity and sensitivity [7]. In this review, we emphasize the applications of silver nanoparticles in LED, optoelectronics and sensing devices.

### 2. SILVER NANOPARTICLES FOR HYDROGEN GAS SENSING

Hydrogen (H<sub>2</sub>) gas sensors have been used in many areas like chemical plants, energy storage and fuel cells. As hydrogen has no taste, smell and color, it cannot be sensed by human sense. Hence more sensitive, cost officitive and reliable hydrogen sensors are being made. Silver nanoparticles due to its extraordinary properties like larger conductivity and more cost efficient as compared to other noble metals like gold, platinum and palladium, is used in gas sensing devices excessively. It can be used as nanocomposite for H<sub>2</sub> gas sensing. V.S.Rizi et al.have fabricated sol-gel derived  $SnO_2/Ag_2O$  ceramic nanocomposite which is used for sensing of H<sub>2</sub> gas. The size of CNP was from 20 to 90nm. Also, uniform distribution of silver in  $SnO_2$  matrix was obtained at 300°C. It was observed that best response of sensor was given by CNP annealed at 300°C. This is due to highest uniform distribution of silver in  $SnO_2$ matrix at this temperature. Hence, it was revealed that homogeneous distribution of silver nanoparticles in tin oxide makes the sensor more responsive, sensitive and selective [7] [8] [9].

### **3. SILVER NANOPARTICLES FOR SENSING OF HYDROGEN PEROXIDE**

Hydrogen peroxide has a wide range of application in industries and medical field for clinical diagnosis [10]. But, large concentration of this analyte affects the human health. Spectrophotometry, chemiluminescence and **DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/029 pg. 33** 

Paper Id: IJTRS-ICACCG2020-029

R-55.

G/

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISS

ISSN No.:2454-2024 (online)

# SMART DISPLAY BOARD WITH CCTV FOR ATTENDANCE

Luv Mahalwal<sup>1</sup>, Jhanvi Gulati<sup>2</sup>, Latika Duhan<sup>3</sup>, Antim Dev Mishra<sup>4</sup>

E-Mail Id: <sup>1</sup>luvmahalwal07@gmail.com, <sup>2</sup>jhanvigulati60@gmail.com, <sup>3</sup>latikaduhan@ansaluniversity.edu.in,

<sup>4</sup>antimdevmishra@ansaluniversity.edu.in

### School of Engineering and Technology, Ansal University, Gurugram, Haryana India

Abstract- Face detection technologies have made many improvements in a short amount of time. Smart Display Board With CCTV For Attendance is a real-world solution which comes with day to day activities of handling student attendance system. A face recognition-based attendance system is a process of recognizing the students face for taking attendance by using face biometrics based on high - definition monitor video and other information technology. In this project, the camera will be able to find and recognize faces fast and precisely in images. The project is made in such a way that the face of the student can be easily recognized for their attendance so that the attendance database can be easily reflected automatically and if the student is not present a message is sent to his/her parents or guardians.

**Keywords:** Attendance System, Automated Attendance System, Face Detection, Face Recognition Attendance System, Internet of Things (IoT)

### **1. INTRODUCTION**

loT refers to a network of devices that make the network self-configuring.

An IoT ecosystem consists of web-enabled smart devices that use embedded systems, such as processors, sensors, and communication hardware, to collect, send, and act on data they acquire from their environments. IoT devices share the sensor data they collect by connecting to an IoT gateway or other edge device where data is either sent to the cloud to be analyzed or analyzed locally. Sometimes, these devices communicate with other related devices and act on the information they get from one another. The devices do most of the work without human intervention, although people can interact with the devices -- for instance, to set them up, give them instructions or access the data.

	A R 2	000	- 15°C
Sensors	Connectivity	Data Processing	User Interface
<b>Collecting data</b>	Sending data to doud	Making data useful	Delivering information to user

Fig. 1.1 Main Components of An IoT System

### 1.1 The 7 Crucial IoT Characteristics

- Connectivity. This doesn't need too much further explanation. With everything going on in 101 devices and hardware, with sensors and other electronics and connected hardware and control systems there needs to be a connection between various levels.
- Things. Anything that can be tagged or connected as such as it's designed to be connected. From sensors and household appliances to tagged livestock. Devices can contain sensors or sensing materials that can be attached to devices and items.
- Data. Data is the glue of the Internet of Things, the first step towards action and intelligence.
- Communication. Devices get connected so they can communicate data and this data can be analyzed. Communication can occur over short distances or over a long-range to very long range. Examples- Wi-

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/0033 Paper Id: IJTRS-ICACCG2020-033

@2017, IJTRS All Right Reserved, www.ijtrs.com

ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue)

ISSN No.:2454-2024 (online)

# **FUTURISTIC ROLE OF MACHINE LEARNING: EXPLORING DOMAINS**

Meenakshi Gupta

E-Mail Id: meenakshi78gupta@gmail.com School of Engineering & Technology, Ansal University, Gurgaon, Haryana, India

Abstract-The current virtual world and the technical trends in socio - economic scenario have alluded the way for a future which calls for collaborative work between machine intelligence, huge computations, giant networks, and big data. The last decade has seen the effective application of different machine learning techniques such as unsupervised, supervised, and reinforcement techniques been used to solve various real life multidisciplinary problems. The objective of this work is to present a systematic overview on the use of data analytics and prediction techniques in various domains of industry. It discusses the roadmap of machine learning towards its potential use in various application domains. vis a vis agronomics, ecommerce, training and various other industry driven application areas. This review paper will discuss the taxonomy of machine learning including the definition and nomenclature, also its possible applications to various industry driven areas is explored. Also, various research gaps have been pointed out which can help the aspiring scholars to pursue their research in this field.

**Keywords:** Machine Learning, Supervised Learning, Unsupervised Learning, Algorithms, Agronomics, Ecommerce, Training Industry, prediction problems

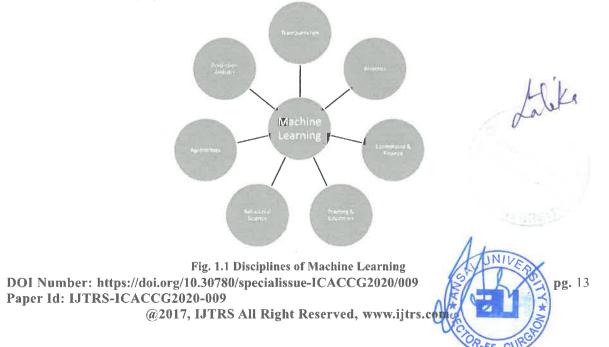
### **1. INTRODUCTION**

Machine learning is making its way into all kinds of products, systems, spaces, and experiences. To understand the impact in the present generic context and to utilize the potential of machine learning, we need to train a new generation of designers and thinkers. This new wave of technical paradigm shift invites a mix of thinkers, designers, data analytics, engineers, people from diverse professions to come together and collaborate towards realization of this multidisciplinary environment.

Learning is the basic means to obtain knowledge. As it is a generic process, it happens naturally to humans in the form of experiences as compared to machines which rely on data for their learning. So basically machine learning (ML) can be understood as a category of artificial intelligence which can make computing machines to learn and think on their own. It encourages PCs to alter their activities through feedback info and afterward to improve the activities to accomplish progressively precise result in the long run. Precision can be estimated as the occasions the picked activities result into right results.

The definition of Machine Learning is present across vast literature. Formally, as defined by Tom Mitchell [1], "A computer program is said to learn from experience E with respect to some task T and some performance measure P, if its performance on T, as measured by P, improves with experience E". Although, the term finds its first mention in 1959 by Arthur Samuel [2] who defined Machine Learning as a field of study that gives learning ability to PCs without being unequivocally customized.

Machine learning is a multi-disciplinary innovation that causes PCs to get into a self-learning mode. At the point when new information is taken care of, these PCs learn, develop, change, and create without anyone else and can give predictions that can guide better decisions and smart actions in real-time without human intervention. These are illustrated in the following fig. 1.1.



# REVIEW OF MACHINE LEARNING TECHNIQUES IN OPHTHALMOLOGY: A NOVEL APPROACH

Savita Bamal

E-Mail 1d: savitabamal85@gmail.com

### School of Engineering and Technology, Ansal University, Gurgaon, India

Abstract-The rising circumstance in this day and age proposes different visual impairment causing maladies like diabetic retinopathy, Age macular degeneration, waterfall, glaucoma. These are significant eye variations from the norm looked in the clinical world. Early analysis and opportune treatment are required to forestall vision misfortune issues. Advanced technology-based computer-aided diagnosis tools using machine learning techniques help to reduce the workload of the ophthalmologist. In this paper, we concentrated on the survey of different existing machine learning models utilized for building up a determination framework for human services applications. This paper features the survey of existing order models alongside their performances.

Keywords: Machine learning, machine learning and healthcare, disease diagnosis using machine learning, classification algorithms, conclusion

### **1.INTRODUCTION**

Machine learning is a subfield of artificial intelligence (AI). The machine learning technologies provide automatic learning ability of system without human intervention. This algorithm focuses on developing Computer-Aided Diagnosis models. These machine learning techniques find a pattern in the dataset that helps in making a better decision support system. Machine learning for healthcare has grown immensely, including work in many domains related to the medical image, computer vision, natural language processing, diagnosing diabetic retinopathy [1], object detection, and large- scale phenotyping from observational data. Various classification-based machine learning techniques make diagnosis system efficient. There are four types of machine learning algorithms.

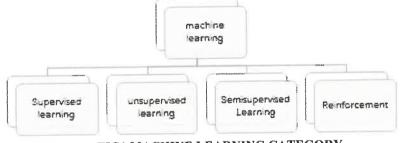


FIG1 MACHINE LEARNING CATEGORY

#### **1.1 Supervised Learning**

It comprises of a given arrangement of information factors which are pre-named and target information. Utilizing the information factors, it creates a planning capacity to plan contributions to required yields.

Y=f(x)

The parameter adjustment process continues until the model attains a suitable level of accuracy on the training data. These types of learning algorithms are used in real-time applications. Classification and regression-based problems are example of supervised machine learning.

Classification: This algorithm helps to map input(x) variable to output discreate value(Y). This algorithm product results in Yes or No, for example "Is this eye normal"?[2]

Regression: It find correlation between dependent and independent variable. It predicts result on the continuous values. This algorithm helps to map input variable(X) to continuous value(Y).

#### **1.2 Unsupervised learning**

In this algorithm, we only have training data rather an outcome data. The system is trained with unlabeled data.

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/011 Paper Id: IJTRS-ICACCG2020-011 @2017, IJTRS All Right Reserved, www.ijtrs.com **pg.** 26

UNIVA

-55. GU

ICACCG2020 30-31 July, 2020, Sushant University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# **SMART SECURITY SYSTEM FOR TWO-**WHEELERS

Niyati Rana<sup>1</sup>, Pravesh Khatta<sup>2</sup>, Antim Dev Mishra<sup>3</sup> E-Mail Id: <sup>1</sup>niyatirana.btech17@ansaluniversity.edu.in, <sup>2</sup>praveshkhatta.btech17@ansaluniversity.edu.in, <sup>3</sup>antimdevmishra@ansaluniversity.edu.in

School of Engineering and Technology, Sushant University, Gurugram, Haryana, India

Abstract- Internet of things enables us to share data over large or small scalable networks, that consist of inter-related computing devices, sometimes referred to as nodes of the network, without the interference of humans or other machines. Because of the effortless communication between IoT devices, IoT is prevalently used in Security Systems. Two-Wheelers are the preferred vehicle to steal due to the ease with which they are dismantled and Two-wheeler thefts are at a rapid rise in India, whereas the rate of recovery remains horribly low, leading to a huge loss that can be considered unrecoverable. A survey of the presently available security measures and systems was carried out. The objective of the investigation was to understand the security measures that are needed to be taken, as well as the current availability of the same in the market. Following this, a system was designed and developed using IoT components to create a smart security system that is effective, as well as affordable.

Keywords: Security System, Two Wheelers, Recovery, Theft Avoidance.

### **1. INTRODUCTION**

IoT refers to a network of devices that make the network self- configuring. The development of Intelligent Smart Security IoT based devices is day by day turning the face of the security systems industry by not only enhancing it but also making it cost-effective. [12]

The purpose / objective of this report is to provide two wheelers with an IoT-based Smart Security System to help people protect their vehicles.

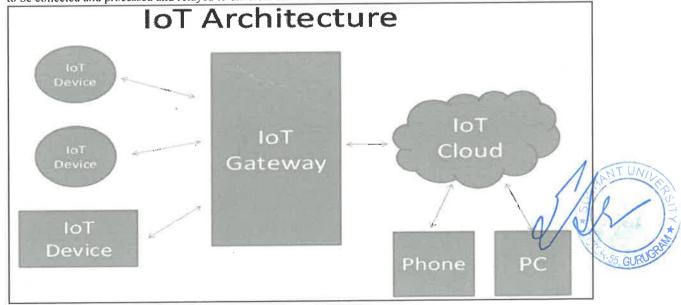
The proposed IoT-based Smart Protection System is combined with Arduino Technology mixed with a fingerprint sensor and a GSM module that allows the vehicle to be remotely turned on and monitored in real time.

### 2. OVERVIEW

The objective of this report is to propose IoT based Smart Security System for Two Wheelers which will work by providing vehicle owners an extra layer of protection for their vehicles, at a very low cost.

### 2.1 IoT Concept and Definition

The term "Internet of Things" refers to different IOT devices with individual uniqueness and their ability to perform remote sensing, actuation and live surveillance of certain kinds of data. IOT devices also enable live information sharing with other connected applications and devices, either actively or passively, or data from several other devices to be collected and processed and relayed to different servers. The second word internet is known as a Global



#### Fig. 2.1 IoT Architecture

Communication Network that connects trillions of computers across the globe to allow information sharing. Thus, the det.K. IOT can be defined as:

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/019 Paper Id: IJTRS-ICACCG2020-019

@2017, IJTRS All Right Reserved, www.ijtrs.com

pg. 81 Dean School Di Engri, & Technology Sushant Universit Cont. 155, Gurugram

261-34

# "Internet of Things Enabled Healthcare Kit"

### Mr. Antim Dev Mishra<sup>1</sup> Dr Naveen Nandal<sup>2</sup>

<sup>1</sup>School of Engineering and Technology, School of Business<sup>2</sup>, Sushant University, Gurgaon, Haryana antimdevmishra@sushantuniversity.edu.in<sup>1</sup> naveennandal@sushantuniversity.edu.in<sup>2</sup>

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

Abstract— The Internet of Things (IoT) is a network of intelligent heterogeneous objects that can communicate and share the data. Patients are required to attend the doctor on a daily basis in traditional models of healthcare. Both the patient and the medical personnel can find these traditional procedures inconvenient. The aim of this project is to create a smart IoT-based health monitoring system which have non-invasive sensors to read various health parameters and displays them on an LCD module in real time. The user can also transfer the data to the cloud to be safely stored and can share this data with doctor for treatment. Data can be live viewed from any location on the planet. Since the battery capacity of each system used in this project is minimal, it would reduce the power usage in order to prolong the life of the healthcare kit. The IoT-based hospital healthcare kit developed using an Arduino Uno, ESP8266, pulse rate sensors, blood oxygen sensor, ECG sensor, blood pressure sensor, and temperature sensor is described in this paper. As a result, IoT-enabled systems improve treatment delivery while also lowering costs by continuously collecting and analysing data.

Keywords: IoT, Arduino Uno, Proteus ESP8266, Healthcare, Sensors, Thing-Speak.

#### I. INTRODUCTION

Wireless infrastructure has advanced dramatically in recent years. As a result of the need to maintain different industries, the number of people employed is growing. Automation and control are especially important. One of the most recent developments of IoT is in the biomedical field. Better health care is on the rise. Not only in clinics, but also in other locations like our home, office. As a consequence, using a smart system comes with a range of benefits. Furthermore, doctors play a vital part, but the check-up process is very long, as a person must first prepare, then receive an appointment, and finally receive treatment. The check-up reports are then generated later. As a result, working people ignore the check-ups due to long process or put it off. This cutting-edge method saves time. According to my research, residents in rural areas do not have the sufficient health coverage. They still may not have enough medical facilities. A significant number of people goes to hospitals when the illness or fever has progressed to the point of becoming life-threatening. Then, taking into account the quality of care, much of the rural areas medical treatment cost is unaffordable to most individuals.

This project ensures fast and accurate real time health monitoring of a person's health using 5 different sensors and informs the person with his actual health related statistics on his mobile device or PC monitor. The sensors used are powered by Arduino Uno microcontroller which is based on ATmega328P microcontroller [13]. It's clocked at 16 Hz frequency which makes the circuit cost low and efficient. All the sensors are assembled in such a way so that it can wearied on a hand in the form of hand glove. This makes Health Care Kit a wearable Health Care kit. Wearable healthcare Kit would compute data from day to day activities which can be used by physicians to improve diagnosis or treatment.

#### II. RELATED WORK

In the field of IoT-healthcare, studies are currently being conducted to provide clinical evidence that raw data obtained from wireless network-connected systems has helped in the diagnosis and prevention of chronic diseases. As a result, many health screening systems are becoming more functional in today's world, including glucose sensors, ECG monitors, pulse audiometers, and blood pressure monitors.

Sushant University Sector 55, Gurugram

				A Step Towards E Published by : Advanced :			0975-2366
Home	About Us	Editorial Be	oard	Instruction to Autho	rs Current Issue	Article In Press	Table Of Conten
CURREN	TISSUE	Q Manuscript Status			1964 -		
olume 16,Issue )24	e 2, Apr - Jun,	QD.					
RTICLE	IN PRESS			Article Detail			:AS <sup>®</sup>
Data found.						AD	IVISION OF THE IERICAN CHEMICAL SC
ADOBE P	READER	1		/aluation of combination of Агол ositive cell lines MCF-7 and ER r			
nuire Adaba A	orehet Baades ta	Cancer				- Fm	base
, lf you don't h	crobat Reader to ave Adobe Acrobat			GH, SHIV KR YADAV, SATISH SAF			Dust
Rea	der)	hur	nan carcir	nogens. Estrogens caused breas	t cancer and stimulate cell grow	th and	
Click here to	Download	cun	rent work	ation via receptor mediated proces Resveratrol was extracted and is	olated from grape seeds (Vitis vi	nifera),	0
Click here to	······	star	ndardized	of Resveratrol was found 1.0 through TLC and UV-visible sp	pectrophotometry. Drug-Drug inte	lacuor	n Scienc
SPECIAL	BER 2017			done with the help of FT-IR before combining aromatase inhibitor Re			ACTS Seience: Construction de M. CSIR
		£		he synergistic/preventive/therapeu lines MCF-7 and ER negative ce		ISLER	n, (251).
Click to d	lber 9[3] 2017 Iownload	2		nd Docetaxel has been done throu been tested with the help of MTT	-	ibes in	
ww	nanosona in	1		ical link between inflammation ar ombination has been doлe with tl			SUBMISSION
			90, and ED	095). hibitor, Breast Cancer, Cell lines, D	ocetavel MTT Binassay Resverat		r Online Submission
		-		g/10.31838/ijpr/2021.13.01.646	ucetaket, with Diozssay, Resveral	1	RLOGIN
		Download: Red	quest For	Article		O Author C	Reviewer
	5).					O Editor	) Subscriber
						Password	
						Lannan	n   Register
						NEWS	& EVENTS
						International Pharmaceutic	
						Not yet assigned	d
					1	quartile	
					Latica	SJR 2023	
					Dean	0	
					School Of Engg. & 1 Sushont University	fechnology powered b	y scimagojr.com
				1	Sector 55, Gurugran	Terms and Condition	ons
				ATUNIU	×	Disclaimer Refund Policy	
				(AXX)	20-	Instrucations for Se Privacy Policy	upscripérs
				NA	× * /	Copyrights Form	
				V LER	SE/	0.12	2018 CiteScore
				OF-55, GUR	~		
				1-55,0		8th percentile	Sconus
						8th percentile Powered b	y Scopus

Preview Available | Scholarly Journal

Evolving Need of Forensic Pharmacovigilance in This Era? Aggarwal, Manvi; Vinayak, Navneet; Singla, Chhavi. Annals of the Romanian Society for Cell Biology; Arad Vol. 24, Iss. 2, (2020): 545-558.

# You might have access to the full article...

Try and log in through your institution to see if they have access to the full text.

Log in through your library

**Full Text** 

Headnote

Translate

Abstract

"Dying from a disease may be inevitable but dying from a medicine is unacceptable". Patient safety is a prime concern for a medical professional. Pharmacovigilance Programme ensures the safety of patients by examining the pattern of adverse events that occur by the usage of drugs. In the current scenario drug abuse, misuse, adulteration, counterfeiting of drugs are exponentially increasing leading to numerous criminal, civil and suicidal cases in India. To investigate such cases and find out the root cause, forensic pharmacovigilance has been evolved and incorporated into our constitutional structure of India. Forensic pharmacovigilance experts must be having the knowledge and ability to understand adverse drug effects and other drug-related problems, legal questions and to detect criminal acts. Their skills and expertise are used in solving a diverse number of legal matters of drugs as misuse/ abuse/non-approved cases. which needs the medical Fraternity to come forward and work for the pivotal application of pharmacovigilance in the forensic sciences. In this review article, some dug reaction cases discussed briefly that require legal implication for investigation

hool Of Engg. & Technology Sushant University Gurugram

5

# **Child Sexual Abuse–The Ineffable Misery**

# - Dr.Sulakshana Assistant Professor of law

# Ph.D, LL.M (Gold Medalist), LL.B (Gold Medalist)

Child Sexual Abuse (CSA) is an irresistible human right issue and public health distress. The World Health Organization (WHO) defines Child Sexual Abuse (CSA) as "the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society.<sup>1</sup>CSA is a serious delinquent issue of considerable extent throughout the world. CSA has intense magnitudes for the child. It is known to impede with evolution and expansion of a child. CSA has also been allied to abundant maladaptive health behaviors, and poor social, mental and physical health outcomes throughout the lifespan. In accordance with that, there is indication that CSA can disturb neuro-biological systems, for e.g. the cortical representation of the genital somatosensory field<sup>2</sup>. Other conjoint sequelae for adult survivors of CSA may comprise relational challenges (e.g., increased risk for domestic violence), violent behaviors, and increased risk of perpetration of CSA as adults.

Enlarged responsiveness in the public dialog and involvement around child protection led to the Government of India passing the, 'The Protection of Children from Sexual Offences' <sup>3</sup>(POCSO) law in 2012. This Act criminalizes a series of acts including rape, harassment, and exploitation for pornography involving a child below 18 years of age and issue directives for the setting up of Special Courts to accelerate trials of these offences.

Child sexual abuse (CSA) is demarcated as any use of a child for sexual satisfaction by another person. It can be committed by an adult, an older or a grown progressive child, or even a child of the same age if coercion is there. This comprehensive definition incorporates a very extensive assortment of experiences, from noncontact exploitation (voyeurism, exhibitionism) to contact abuse that sorts from genital fondling to violent rape. The special effects of CSA on victims and their families differ immensely, so that a search by CSA Researchers in the 1980s to recognize a "sexually abused child syndrome" is alike to be barened child syndrome" has been uninhibited as infertile.<sup>4</sup>

004

<sup>3</sup> The Protection of Children from Sexual Offences Act,2012

<sup>&</sup>lt;sup>1</sup> World Health Organization. Report of the Consultation on Child Abuse Prevention Geneva (Switzerland): World Health Organization, (1999).

<sup>&</sup>lt;sup>2</sup> A.K. Shrivastava, S.B Karia, S.S.Sonavane, A.A De Sousa, "Child sexual abuse and the development of psychiatric disorders: a neurobiological trajectory of pathogenesis", 26(1), *IPJ* 4-12 (2017).

<sup>&</sup>lt;sup>4</sup> Erna Olafson, "Child Sexual Abuse: Demography, Impact, and Interventions" 4 JCAT 8-21 (2011).

# **Protection of Non-Conventional Trademarks: Issues and the Road Ahead**

Dr. Komal, Associate Professor, Sushant University, Gurugram

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

## Abstract:

Trademark as discussed under TRIPS agreement are referred to as "any sign, or combination of signs, capable of distinguishing goods or services of one person or entity from those of others". The major rationale behind the emergence of trademark law is to protect the business, goodwill and reputation associated with the goods and services thereby facilitating the consumers to distinguish between goods or services originating from different sources and eliminating the confusion regarding the origin of the product.

Traditionally, a trademark was referred to in its conventional form as any sign, word, slogan or symbol in twodimensional form which is used to distinguish the products and services of one proprietor from others. In the present time of aggressive marketing, various new techniques are adopted by manufacturers and sellers of goods and services to make their product distinct from those of other potential competitors present in the market and to capture the attention of the consumers. This brought the idea of non-conventional marks in picture. With the change in time, the trademark law is also expanding its horizon from the traditional notion of marks which earlier used to include only two dimensional marks including words, signs, symbols etc. to new form of non-conventional marks such as marks including or originating through color, smell, shape, taste, touch, sound, position and various other forms of non-conventional marks.

The use of new forms of marks to distinguish the goods and services from others had also raised several issues for the registration, functioning, distinctiveness and acceptance of these marks as trademark while breaking the old conventionalities. Also, there is an issue related to the non-availability of any uniform standard for the protection of these non-conventional marks. In this research paper, the researchers will look into the various types of non-conventional marks and the various problems pertaining to their registration, graphical representation, working, distinctiveness and absence of uniform standard for protection of non-conventional marks.

# 1. TRADEMARK & NON-CONVENTIONAL MARK- A BRIEF INTRODUCTION

Before the authors discuss the above-stated issues mentioned in the abstract related to the protection of the non-conventional marks, it is necessary to be about Trademarks and non-conventional marks.

# **1.1 TRADEMARK**

Trademark is referred to as a product of the modern competitive market where in case of presence of more than one seller for the same product, it identifies the origin and is used to distinguish between the two similar products.[2] Trademark portrays the nature, kind, quality and origin of



# ANALYSIS OF CORPORATE INSOLVENCY RESOLUTION PROCESS UNDER INSOLVENCY AND BANKRUPTCY CODE

Priya Yadav<sup>1</sup> Dr. Komal<sup>2</sup>

### Abstract

The Insolvency and bankruptcy code, 2016 is the bankruptcy law of India which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy in the past insolvency regulation process included operations of simultaneous acts<sup>3</sup>. In this it was changed and several insolvency laws were consolidate which creating a single law. These include the Sick Industrial Companies Act, 1985. The recovery of debt due to banks and financial Institutions Act, 1993, the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 and the Companies Act, 2013. This code provides a genuine rehabilitation and restructuring of the company. The IBC process gives substantial power to financial creditors, both domestic and foreign.<sup>4</sup>

I. Introduction

II. Background

- III. Analysis of the problem
- IV. IBC Ordinance 2020
- V. Conclusion

### I. INTRODUCTION

Sri Arun Jaitley, the Finance Minister, introduced the Insolvency and Bankruptcy Code in 2015. However, it was created in May of 2016. Since 2014, the Reserve Bank of India (RBI) has taken a hard line against the rising tide of bad loans in the banking system. The government attempted to address the issue with forward-thinking and proactive measures such as the Joint Lenders Forum (JLF), Strategic Debt Restructuring (SDR) — with and without control changes — and S4A. These systems, while not capable of dealing with all situations, are a step in the right direction toward a resolution community. The default resolution is and will always be true to of circumstance. In that regard, the Insolvency and Bankruptcy Code is timely because it focuses on a restructuring plan with a the total control change that, if

# GANDHIAN PHILOSOPHY: A SPIRITUAL, POLITICAL, & JURIDICAL ANALYSIS

# By Amit Kumar Singh

Assistant Professor Ansal University, Gurgaon &

# Vijay Singh

(Librarian) Kochhar & Co. &

# Gaurav Bhartia

Assistant Professor Kunwar Ajay Singh, Kidhi Mahavidayalaya, Unnao

# ABSTRACT

If you seek to look legacy around yourself, you must peep into history. History is a minuous dialogue between present and past. Present is a product of past, On the one hand, if it succeeds with some problems from the past, it receives some insight to solutions too. Nation develops, as organisms develops and there are different theories available to origin of nationalism. Theories like those of primordia lists and perennializes believe in historical evolution of the Nation. It suggests that the structure of a nation has its roots in historical base. Every Nation holds a unique identity and it deals BURNISHED LAW JOURNAL with the challenges in its unique own way. National conscience is reflected through its great leaders. Gandhi, in Indian context, symbolises the primordial tradition; his approach of change, is predominantly a functionalist approach, and he is best perceived as expression of orthogenetic change. There is always an element of continuity of history and it perceives that Change are gradual, slow and cumulative process of adjustment to new situations. In India this predominant ideology did not believed in class- conflict, rather it is based on reformative ideology and paradigm of class-cooperation. The present research paper deals with this aspect, with Gandhian philosophy at the centre. The paper is significant for contemporary world, as the message of Gandhi was not limited to any particular Nation. It is a legacy to the practical world. The research paper compares Gandhian thought with other thinkers, leaders and philosophers, and tries to show the utility of Gandhi in context of present-day politics. beid problems, related to

Keywords: Primord of the primord ism, orthogenesis, spirituality, politics, Historical continuity



Page 1829 - 1839

DOI: http://doi.one/10.1732/IJLMH.25912

# INTERNATIONAL JOURNAL OF LAW MANAGEMENT & HUMANITIES

# [ISSN 2581-5369]

Volume 4 | Issue 1

2021

© 2021 International Journal of Law Management & Humanities

Follow this and additional works at: <u>https://www.ijlmh.com/</u> Under the aegis of VidhiAagaz – Inking Your Brain (<u>https://www.vidhiaagaz.com</u>)

This Article is brought to you for "free" and "open access" by the International Journal of Law Management & Humanities at VidhiAagaz. It has been accepted for inclusion in International Journal of Law Management & Humanities after due review.

In case of any suggestion or complaint, please contact Gyan@vidhiaagaz.com.

To submit your Manuscript for Publication at International Journal of Law Management & Humanities, kindly email your Manuscript at submission@ijlmh.com.

# A Comparative Analysis of Minority Squeeze-Outs

### **ARUSHI MALIK MEHTA<sup>1</sup>**

## ABSTRACT

Squeeze-out implies compulsorily acquiring the equity shares of a company from the minority shareholders by giving them compensation in cash. Squeeze-outs are both visible and palpable manifestations of a controlling shareholder's raw power within the corporate machinery- the ability to openly force minority shareholders to exit the company by accepting a certain price for their shares. Yet, squeeze-outs can be value enhancing at times due to the benefits of enabling the controller to acquire the entire company. Perhaps due to this rather conflicted and dramatic background, squeeze-out regulation takes on varying hues across multiple jurisdictions.

In India, the concept of squeezing-out minority shareholders has always existed but it was explicitly introduced in the Companies Act, 2013. The mechanism for minority squeeze out in India is quite similar to that in UK. In India, the controllers can choose among several available transaction structures to implement a squeeze-out. These include the compulsory acquisition mechanism, scheme of arrangement, and reduction of capital. Unsurprisingly, the structure most commonly used by controllers is the reduction of capital, which provides the least protection to minority shareholders.

Since, the structure or mechanism for squeeze-out in India is quite similar to that of UK it becomes important to analyse the system in UK. The regulation of squeeze-outs in jurisdictions apart from UK i.e. USA, Germany, Singapore will also be analysed. The objective is to examine which approach or combination of approaches will be best suited for India. But the basic aim of suggesting the reforms will be protection of minority

shareholders which is currently missing in India

## I. INTRODUCTION





The unleashing of the business economy has opened up a lot of lucrative options for the business community as a whole. The absence of any restrictions as such has encouraged the business to expand using both organic and inorganic means of growth. Mergers and

<sup>&</sup>lt;sup>1</sup> Author is Assistant Professor at School of Law, Sushant University, Gurugram, India.

Chap 16.

COL-12

ISSN-2347-7180

# DOGO Research Journal Volume - 07 Issue - 19 August 2020

গৱেৰ্যণা পত্ৰিকা

# Editor

Dr. Upen Rabha Hakacham	(Chief)
Dr. Lalit Ch. Rabha	(Asst.)
Dr. Neeva Rani Phukan	(Asst.)
Handleist	
ড° উপেন ৰাভা হাকাচাম	(同可)
ড° ললিত চন্দ্ৰ ৰাভা	(সহযোগী)
ভ" নিভা ৰাখী ফুৰুন	(সহযোগী)

# DOGO-RANGSANG RESEARCH JOURNAL দগো-ৰাংছাং গৱেষণা পত্ৰিকা

Chief Editor Editors Dr. Upen Rabha HakachamDr. Lalit Chandra Rabha Dr. Neeva Rani Phukan

মুখ্য সম্পাদক সম্পাদকদ্বয় ঃ ড° উপেন ৰাভা হাকাচাম ঃ ড° ললিত চন্দ্ৰ ৰাভা ড° নিভা ৰাণী ফুকন



Dogo-Rangsang Research Society Reg. No. KAM-M/263/L/ 595 of 2015-16 Gauhati University Campus Guwahati - 781014

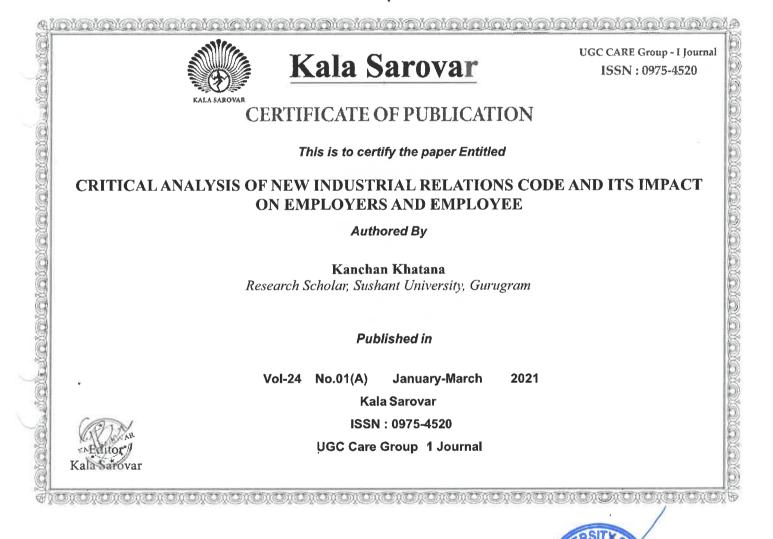
10	UNANIMITY IN BANKING: MICROFINANCE LENDING THROUGH JOINT	115-122
	LIABILITY GROUPS - Nishat Ahtesham	
	& Sanjiv Mittal	
11	DIGITALIZING THE WAY OF DOING BUSINESS - Avinash kumar Pandey,	123-128
	Ayush Rajput, Saurav Harsana & Kshama Sharma	
12	DEMYSTIFYING DATA CENTRE COSTS AND PRICES - Sarvesh Kumar Tripathi	129-144
	& Dr. Avjeet Kaur	
13	ARTIFICIAL INTELLIGENCE & INTELLECTUAL PROPERTY RELATED ISSUES IN	145-153
	INDIA: NEED FOR PROPER REGULATORY FRAMEWORK - Rashi Sharma	
14	GENDER JUSTICE, FEMINISM AND GLOBAL POLITICS – Dr. S.K. Bose & Ms.	154-163
	Priyanka Walter	
15	INTELLECTUAL PROPERTY RIGHTS AND ARTIFICIAL INTELLIGENCE -	164-180
	Medhavi Gureja	
16	ARTIFICAL INTELLIGENCE: A BOON OR BANE TO LEGAL INDUSTRY – Sakshi	181-188
	& Dr. Sulakshana Banerjee Mukherjee	6
17	IMPACT OF ARTIFICIAL INTELLIGENCE ON LEGAL INDUSTRY - PRATIKSHA	189-194
	VARSHNEY	
18	AN EFFICIENT AND RESPONSIBLE ORGANISATION: ROLE OF LITIGATION	195-206
	POLICY – Navjot Singh Khurana	
19	IMPACT OF ARTIFICIAL INTELLIGENCE ON LEGAL WORLD - WAY AHEAD -	207-219
	Dr. Komal	
20	LEGAL AND SOCIAL PERSPECTIVE OF SURROGACY BILL 2019 - Shikha	220-233
	Sharma	
01	SEXUAL HARASSMENT OF WOMEN AT WORKPLACE AND DESCRIPTIVE	234-238
21		237-230
	STUDY ON VISHAKAHA GUIDELINES - Gaurav	
	A Ra	
	E CHOOL PART	
	UT OT STA	

work<sup>10</sup>. As of now, there isn't any concrete law present that provides any direction with respect to AI and intellectual property and hence the existing laws must be adhered to according to which, AI will not be qualified to hold any IP right. India does look at international precedents in cases where there isn't any national, in this scenario the existing status, albeit minimal also points towards public domain for any AI created work, as the idea expression dichotomy is an ever present throne in any discussion regarding copyright and AI.

# FIRST SALE DOCTRINE AND COPYRIGHT

The doctrine of first sale is a legal principle that restricts the sale of any commodity after it has been sold the first time; it restricts the right of the holder of the IP. The doctrine states that once a copyright holder sells the right to a party they lose the right to sell it again or otherwise utilise or dispose the property. This doctrine is applicable on both the physical as well as the digital version of copyright<sup>11</sup>. It is a common law doctrine which tries to balance the monopoly right given to the IP holder versus the general right of the society<sup>12</sup>. The monopoly provided to IP holders has its limitations, as although the creators are rewarded for their work, they are still limited by the constraints put up by the law.

The current problems presented with respect to first sale or exhaustion principle is mostly with respect to the access that is present over all kinds of data all over the world. There is an ease in mass production of digital data both in terms of the cost and the ease of distribution that is concerned. This is one of the major areas in which digital content differs from physical material. Hence because of all these factors, there is less to no amount of wear and tear to contents of such manner, which evidently leads to illegal trading of such content which also



SOLIY

PSYCHOLOGY AND EDUCATION (2021) 58(5), ISSN 1553 - 6939 Article Received: 22th November, 2020; Article Revised: 26th March, 2021; Article Accepted: 26th April, 2021

# **Psychology and Black Architecture**

# Avitesh<sup>a</sup>, Dr. Naveen Nandal<sup>b</sup>

- a- Research Scholar, School of Art & Architecture, Sushant University, Gurugram, India
- b- Assistant Professor, Sushant University, Gurugram, India

aravitesh13@gmail.com, naveennandal@sushantuniversity.edu.in

## Abstract

Architectural Design or architectural field and human psychology are sharing a vital relationship but it has been ignored all the time and unnoticed by the design industry. Interrelation of design and psychology is not just significant but also reciprocal. One side claims, effective design has been shown psychologically impacted and physiological effects; the other side, psychology, human experience, and the work of our neural systems all play a role in our perceptions of Successful design. This paper aims to explain how the dynamic relationship came to be and how it should function in today's era and how black architecture theory has an essential significance during the design process. It accomplishes this by first looking at the working of the human brain and how the nervous system organized with it, how our forefathers adopted this structure and function. It reviewed literature that how modern culture affects that function. The positive impacts and harmful effects with the similarities and interrelationships in-between nature, psychology, and our nervous system are examined with that context. The modern-day issue of human stress induced by poorly built buildings and spaces will be illustrated, design recommendations with the help of psychological study followed by a discussion on black architecture theory and architecture buildings.

Keywords: Black Architecture, Design, Psychology, Human interaction

### Introduction

In the architectural field, styles have evolved as the general public has invested in building materials and new construction processes have witnessed new evolution and enhancements. Some of them have faded quickly, while other styles have stood for a long time and stood the test of time and been around for several decades. Some old or traditional styles are even influencing modern architecture today. The

www.psychologyandeducation.net

School Of Engg. & Technology Sushant University Gestor 55, Gurugram

psychological and its benefits in architectural design are beyond the mere sense of an aesthetically pleasing aspect. Nowadays, the psychological advantages of aesthetics in architecture are more frequently reorganized. A few years ago, in exchange for form, use and craft, architectural elements traditionally taught (form, use and beauty) were dropped. To a considerable degree, human behavior is governed by the environment and resources within the environment. The physical structures of human behavior have a significant effect.

3630

International Journal of Contemporary Architecture "The New ARCH" Vol. 7, No. 4 (2020) ISSN 2198-7688

# Bio Solar Terrace: A Review on Benefits of Photovoltaic Green Roof

Avitesh<sup>a</sup>, Dr. Tejwant Singh Brar<sup>b</sup>

a- Research Scholar, School of Art & Architecture, Sushant University, Gurugram, India
 b- Professor, School of Art & Architecture, Sushant University, Gurugram, India

### Abstract

Terrace Garden and Photovoltaic rooftop systems are both considered as sustainable solutions for buildings as both are energy efficient & helps in reducing carbon emissions. These two systems are pretty different in framework and application and this is difficult to say which one is better as both are appropriate. Putting both at the same time will be beneficial to maximize the output of power of PV system through evaporate cooling and roof vegetation. There are many challenges to adopt both the technologies in combination because of the lack of experimental studies. This study is a formal review of the published studies (experimental and simulation) on the advantages of green roof and Photovoltaic system. This review is a detailed review on the benefits of PV vegetated roof and how this solution will help to improve energy output of PVgreen roofs and CO2 emission reduction with long term benefits of PV-GR. The investigation of this paper will be an overview of the utility of bio solar terrace for the buildings during the operational phase and how worth it will be for the environment.

Keywords: Photovoltaic Green Roof, benefits, CO2 emission, sustainable solution, energy efficiency.

Contents:

- 1. Introduction
- 2. Methodology
- 3. Literature Review
- 4. PV Green Roof
- 5. Benefits of PV Green Roof
  - 5.1 Benefits of Photovoltaic green roof during its operational stage
  - 5.2 Benefits for energy output of PV panels
  - 5.3 CO2 emission reduction
  - 5.4 Long term benefits for PV-GR integration
  - 5.5 Benefits in dust removing and cleaning the surface of panel
  - 5.6 Other benefits
- 6. Future Directions

7. Conclusion

References.....

School Of Engg. & Technology ......Sushant University Sector 55, Gurugram

81 | Page



**Conference Proceedings** 

National Conference: CIMA2020

Theme: Cultural Transformation In Contemporary World

ISBN No. 978-93-81131-03-9

# A Discussion on Cultural Transformation in the Contemporary World (Case - Goa)

Ms. Avitesh Assistant Professor, Sushant School of Art & Architecture, Garugram, India

### Abstract

Transformation happens globally at every stage, junction and every aspect of life. We can definitely observe our cultural systems seeking more modern ways and approaches that feeds different mindsets. Indian culture has witnessed changes because of the periodic foreign invasions and has peacefully digested its impact. To many, the quality of resilience that Indian Culture was earlier is slowly diminishing. To add to the previously mentioned, I am highlighting a case of Old Goa - Church of St. Augustine. The article opens up a debate on Cultural Transformation of a 400 years old structure.

An attempt to critically discuss on the biggest church of Goa in 16<sup>th</sup> century (1602-1938) that helped in earning a new cultural identity for the state.

Keywords: Culture, Transformation, Architecture, Identity, Goa, Church.

### Introduction:

Architecture works within the material kind of building, is the process of planning and designing. Culture is one amongst the expressions in architecture. It is the full way of life, materials, intellectual and spiritual of a given society which lies in values, beliefs, underlying assumptions and behaviours. To grasp the culture of town, you need to learn about its buildings. In one hand, architecture is the reflection of the town culture and on other hands architecture can change culture.

Table 1: The model of the relationship between culture and architecture

Architecture and Cultural	Architecture	Scope of culture
Functional	As a result of social components interaction	Sociology
Conceptual	As an artistic product that includes an end elevation of the mind	Aesthetics
Space Quality	As a matter of human's life and includes and effective on actions	Anthropology
Perceptual	As a result of mental attitude to the surrounding built environment	Psychology

Culture transformation may be defined as the influence of another's perception on individual or community behaviour. Certain situations may be reason for culture transformation. Architecture evolution of elders' achievements and their break from contemporary history led to the assembly of illegible space. We are becoming fail to ascertain a logical relationship with the last architecture because of this illegibility. Indian civilization is one of the oldest civilization within the world. To

Cultural Identities: Manifestation through ArchitecturePage

Dear School Of Engg. & Technology Sushant University Sector 55, Gurugram

Page 215

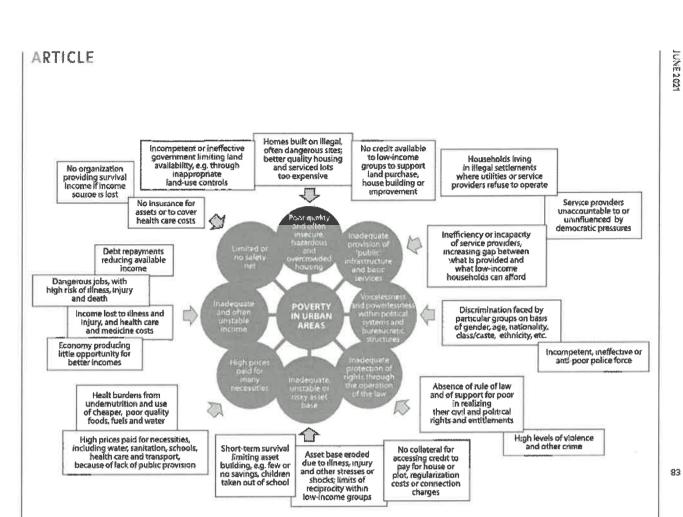


Figure 1: Aspects and impacts of urban poverty (Source: Adapted from Urban Poverty in Global South Scale by Mitlin and Satterthwaite, 2012, fig. 2c, p. 32)

# ANTYODAYA VIA INCLUSION RE-THINKING URBAN INDIA

atika

Dean School Of Engg. & Technology Sushant University Coattor 55, Gurugram



2/9/24, 2:19 PM

Transit Oriented Development and Gentrification: An Impact Review | NEW ARCH-INTERNATIONAL JOURNAL OF CONTEMPOR...

Home (https://www.the-new-arch.net/index.php/journal/index)

/ Archives (https://www.the-new-arch.net/index.php/journal/issue/archive)

/ Vol. 7 No. 4 (2020) (https://www.the-new-arch.net/index.php/journal/issue/view/26) / Articles

# Transit Oriented Development and Gentrification: An Impact Review

DPDF (https://www.the-new-arch.net/index.php/journal/article/view/259/234)

Rahat Varma, Dr. Naveen Nandal, Dr. Tejwant Singh Brar

# Abstract

The study establishes a basic relationship between Transit Oriented Development and factors that influence it, be it citizen preference, or modal shifts caused by the subtle nudging towards change, a change that consciously work towards reducing automobile dependencies in the urban fabric. Understanding the resident's needs is paramount be it proximity to public transport and walkable neighbourhoods or the established fondness towards automobile-oriented settlements, with access to highways. The divide that separates these two groups is often very narrow and thus the cities response to such issues is often unclear and thus hard to spot. Lastly the study also touches upon the phenomena of gentrification and its, close relationship with planned transit models. Concepts and interdependencies of transit and living are explored and the three models that are closely looked into are Transit- Oriented Communities; Rich Neighbourhoods and Adjacent Developments.

Issue

Vol. 7 No. 4 (2020) (https://www.the-new-arch.net/index.php/journal/issue/view/26)

Section

Articles

(cc)

(https://creativecommons.org/licenses/by-nd/4.0/)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

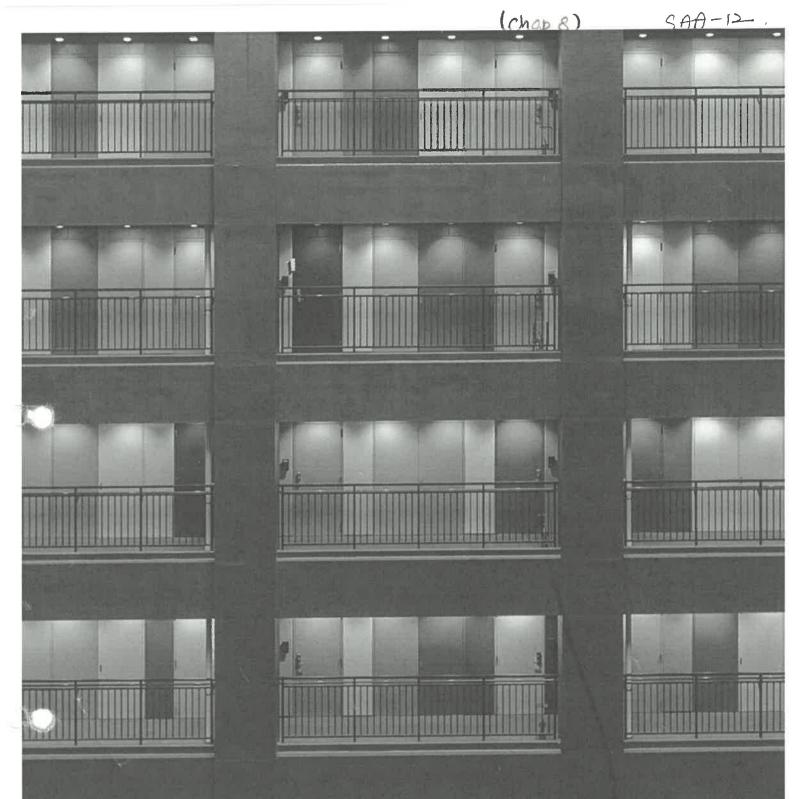
CC Attribution-NoDerivatives 4.0

Of Engg. & Technology ushant University

t : 55, Gurugram



https://www.the-new-arch.net/index.php/journal/article/view/259



# **Experiential Design** Rethinking relations between people, objects and environments

AMPS Proceedings Series 18.2

Latrice.



# AMPS PROCEEDINGS SERIES 18.2

AMPS, Florida State University 16—17 January, 2020

Experiential Design – Rethinking relations between people, objects and environments





Scheel Of Engy, & Technology Sushant University Scott :: 55, Gurugram

tile.

EDITORS: Yelena McLane and Jill Pable

SERIES EDITOR: Graham Cairns

PRODUCTION EDITOR: Eric An

 $\geq$  .

© AMPS C.I.O.

School Of Engg. & Technology Sushant University Sector 55, Gurugram

AMPS PROCEEDINGS SERIES 18-2. ISSN 2398-9467

# INTRODUCTION

# Volume 2: Wellbeing, Design and Society

In January 2020, Florida State University hosted the international AMPS conference Experiential Design – Rethinking relations between people, objects and environments. The keynote speakers were Chris Downey from Architecture for the Blind, and Angela Spangler from the International WELL Building Institute.

The conference reflected a confluence of ideas and methods derived from two discrete calls for proposals – the first we directed to designers, artists, and architects, and the second to health, wellbeing, education, and psychology professionals. Although there were many confluences between the concepts addressed by these esteemed scholars and practitioners, we have structured the conference proceedings to reflect the original proffers. This second volume emerged from the following:

The diversity of issues dealt with in the fields of psychology, health and education mean that these disciplines are, almost by definition, interdisciplinary. Environmental psychology is intrinsically linked to issues of the spaces we inhabit and the places we identify with, making it uniquely relevant to this conference. Similarly, the Public Health movement has its origins in issues directly connected to this conference: the living conditions of the 19th century urban poor.

The education sector has long been at the forefront of spatial design, with the effects of environment on learning being long studied. However, it is not only these specific spatial strands of the psychology, health and education fields that are interdisciplinary and relevant to this call: social psychology, mental health care, clinical psychology, educational psychology, geriatric medicine, nursing and occupational therapy are all examples of other relevant disciplines.

In all of these areas health, wellbeing, education and psychology professionals can, should, and do engage with the world of designed objects and environments: school buildings, residencies for the aged, commercial settings, orthopedic products, artworks, ergonomic furniture, rehabilitation products and planning law for accessibility to name but a few.

Each paper in this volume centers upon the premise of wellbeing and design. We have arranged them thematically based upon the objects or environments implicated in the wellbeing of users, vulnerable populations, and larger social groups and societies. The perspectives of psychologists, urban designers, and architectural, interior and product design scholars, and design and engineering educators combine to reveal the extent to which design can be a catalyst for change in peoples' views of environmental stewardship, history, social equity, and equality.

We thank all of the participants for their engaging contributions to the growing discourse on the manifestations and meanings of designed experiences and experiences of design

Yelena McLane and Jill Pable

Tallahassee, Florida

School Of Engg. & Technology Sushant University Cost 1155, Gurugram



# TABLE OF CONTENTS

.

gitilee. School Of Engg. & Technology Sushant University C Dirugram

-55, GV

5

<b>Chapter 1</b> PERFORMANCE ANALYSIS OF BIOMIMETIC FACADES Mahsan Mohsenin	8
Chapter 2 PHOTOVOICE AND THE DESIGN OF SCHOOLS FOR ASTHMA EQUITY: RETHINKING ARCHITECTURE AND NURSING FROM THE PERSPECTIVE OF DISABILITY STUDIES Robin Evans-Agnew, Sushil Oswal	14
<b>Chapter 3</b> INHABITING THE PUBLIC INTERIOR. AN EXPLORATION INTO THE CRITICAL ROLE OF PERSONALISATION IN IMPARTING QUALITIES TO PUBLIC LIFE. Valerie Mace	25
<b>Chapter 4</b> FRACTAL WELLBEING IN INTERIOR DESIGN Noor Danielle Murteza	36
Chapter 5 DESIGNING FUTURE MEMORIES: AN EVIDENCE-BASED SELF-HELP INTERVENTION TO PROMOTE USER WELL-BEING Jeremy D. Faulk, Clara Dewey, Oluwanifemi Oluwadairo, Carlos Aguiar, Jungkyoon Yoon	49
Chapter 6 THE RESIDUAL SPACE: EXPERIENCE-BASED METHODS Carley Rickles	59
Chapter 7 ELDERLY-FRIENDLY INTERIOR DESIGN Chandni Luhadiya	69
<b>Chapter 8</b> CHALLENGING REDUNDANCY IN INSTITUTIONS: AN ATTEMPT TO AMELIORATE STATIC LEARNING ENVIRONMENTS Ananya Sethi, Ramadass Bama Thiruvengadam	76
Chapter 9 EXPLORING THE INFLUENCE OF USER WELLNESS IN COMMERCIAL INTERIOR DESIGN Amy Huber	97
<b>Chapter 10</b> THE ROLE OF PSYCHOLOGICAL FLEX/BILITY IN THE THERAPEUTIC ENVIRONMENT. THE CASE OF THE MAGGIE'S CENTRE Caterina Frisone	112
<b>Chapter 11</b> ARCHITECTURE AND DISABILITY: A QUALITATIVE STUDY OF THE INDIVIDUAL EXPERIENCES OF PEOPLE WITH MOBILITY, VISUAL AND HEARING IMPAIRMENTS IN SPORT AND LEISURE BUILDINGS Roberta Cassi, Masashi Kajita, Olga Popovic Larsen	119
Chapter 12 QUITO OPEN CODE, BETWEEN FRAGILITY AND MODIFICATION. Paola Bracchi, Dario Giordanelli	132
Chapter 13 UNVEILING THE PRENATAL ORIGIN OF THE CHILD CAVES PHENOMENON John David Flores	140
Dean School Of Engg. & Technology Sushant University Coattar 55, Gurugram	6

k.,

Chapter 14 PRODUCT DESIGN ETHICS – THE NAUGHTY HELMET David Domermuth	148
Chapter 15 ELEMENTS OF CONTROL AND DEGREES OF FREEDOM IN THE NEW CIVIC SPACES OF THE CONTEMPORARY CITY Pedro Bento	153
<b>CHAPTER 16</b> MOVING TOWARD A MINDFUL ARCHITECTURAL DESIGN; INTEGRATIVE HOUSING; HOME, WORK, WELLNESS Isun A Kazerani	161
CHAPTER 17 THE QUALITY OF WORK ENVIRONMENTS FOR EARLY CHILDHOOD EDUCATORS' WELL-BEING: AN INTERDISCIPLINARY APPROACH Mia Kile, Natalie Ellis, Kyong-Ah Kwon, Ken Randall, Timothy Ford, Adrien Malek	171
<b>Chapter 18</b> EXPERIENCE-BASED CARTOGRAPHY: OBSERVATIONS ON THE ECOLOGY OF MENTAL HEALTH Kornelia Dimitrova, Juliette Bekkering, Torsten Schröder	182

datike



Dean School Of Engg. & Technology Susbont University BEYOND 2020 – World Sustainable Built Environment conferenceIOP PublishingIOP Conf. Series: Earth and Environmental Science 588 (2020) 022026doi:10.1088/1755-1315/588/2/022026

# Traditional healing practices in India: Intangible knowledge and its resultant socio-cultural sustainability

Chitrangda Singh<sup>1</sup>, Amrita Madan<sup>2</sup>

<sup>1</sup> Final year student, Bachelor of Architecture, Sushant School of Art and Architecture, Ansal University, Haryana, India

<sup>2</sup> Professor, Sushant School of Art and Architecture, Ansal University, Haryana, India

E-mail : chitrangdasingh1997@gmail.com

Abstract. There is an intimate relationship between our emotions and things around us. How and what we interpret from surroundings, formulates our experience of a spaces, which in turn governs the way we feel. Spatial setting has a deep impact on the practice and outcome of 'psychological and spiritual' healing. In India, there exist diverse traditional healing practices such as Ayurveda, Tibetan healing, Yunani, etc., which are the storehouses of intangible knowledge and ideas. The spaces of such practices appear to be unique and it seems that there are strong traditional ideas expressed through the physical construct of space. Such elaborate characteristics of the space enables the traditional systems to sustain in the rapidly urbanising society. The aim of this research is to explore the correlations between the spatial construct and fundamental ideas of healing as mentioned in the ancient texts of Ayurveda and Tibetan healing practice. Further, the research delves into understanding how such correlations result in sociocultural sustainability of traditional systems. Tushita Meditation Centre at Dharamshala and I-AIM Healthcare Centre at Bengaluru are taken as primary building case studies. First-hand experience of the authors and observations with respect to the spatial construct are recorded. Further, the ancient texts of the traditional practices are studied to formulate the correlations with the ideas of healing as mentioned in the ancient texts of the respective practice. By doing such a study, we not only explore how the nature of the spaces is critical to the sustenance of the values embedded in the traditional system but also how it reflects on the overall continuity of the system. The outcome of the research is a set of correlations leading to sustainability of the traditional systems and hence, the importance of the UN Sustainable development goal 11 which suggests the strengthening of efforts to safeguard and protect natural and cultural heritage in order to lead to inclusive, sustainable and resilient cities.

### 1. Introduction

'Our rich and varied cultural heritage has profound power to build our nation.'[1] In the rapidly evolving world of technology and advancement, our local, indigenous and traditional communities and practices are the 'knowledge banks' of rich cultural values, which can be harnessed in order to lead to sustainable and inclusive development. Rather than a conventional understanding of the term 'sustainability', when one refers to the value infused traditional systems as 'blueprints' for sustainability, an interesting array of approaches and methodologies are revealed. Such methodologies are only successful if various stakeholders of the society contribute towards translating the intangible knowledge associated through relevant mediums such as art, literature, built environments, technology, etc. An example of such as

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any furth the of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI. Published under licence by IOP Publishing Ltd 1

> School Of Engg. & Technology Sushant University Scatter 55, Gurugram

55



Studies in Indian Place Names (UGC Care Journal) ISSN 2394-3114 Vol. 40 Issue 10, February 2020 JTA Multidisciplinary International Conference 2020, Jamia Millia Islamia, New Delhi. Conference Dates Feb 16-18, 2020 Venue of the Conference: Dr. M.A. Ansari Auditorium Jamia Millia Islamia (A Central University), New Delhi – 110 025, India



# Improvising Vernacular Ecological Sustenance: An approach towards reviving the Sinking Cities.

Pooja Lalit Kumar

Research Scholar, Faculty of Architecture & Ekistics, Jamia Millia Islamia, New Delhi

poojakumar@ansaluniversity.edu.in

Dr. Qamar Irshad

Associate Professor, Faculty of Architecture & Ekistics, Jamia Millia Islamia, New Delhi

girshad@jmi.ac.in

### Abstract

Indian cities, along with lifestyle issues are living with the ever growing risk of Natural disasters. Development leads to urbanisation, which is a process of change from rural to urban way of life over space and time, based on naturally evolved or acquired specialization (Mabogunje, 1968). Cities in both developed and developing world have lately become increasingly prone to severe floods that cause disruptions to human population, built habitat and natural ecosystem. Over the past two decades the Indian cities have battered with a series of disastrous floods which have seriously rattled the economy and development of the country leave beside the city - making it a national phenomenon. The government agencies lack time, human, financial and technological resources, and face coordination issues. Public participation is hampered by community's lack of interest, lack of awareness, cultural barriers and lack of time. The most distressing aspect of these calamitous events is not that they keep on happening at regular intervals but the fact that often urban development and lack of empathy are chiefly responsible for aggravating the intensity of impact. It seems our cities have lost their context and connection with the roots. What is it that our cities have done to gain water in this form? Is it now a regular phenomenon? Are the cities prepared? This large and evolving trend of urban flooding poses a great challenge to us the so called urban architects in order to better understand and more effectively manage existing and future risks. The paper through different lenses looks at various areas in a city which have been inundated in the recent past and ascertains the need of an ecological resilient approach before this nightmare becomes a day to day affair. The paper further explores the possibility of exploring the role of academia in overcoming these challenges with the use of vernacular techniques which is minimal at present.

Keywords: Urban Floods, Vernacular Architecture, Public Participation, Academia, Ecological Resilience

### **1. Introduction**

Cities are an interdependent and complex system, tremendously vulnerable to fears from both natural risks caused by a growing urban population, high population density and terrorism. Half of humanity i.e. about 3.5 billion people live in cities today and by 2030, 60% of the world's population

**Article Info:** 

Page | 89

Copyright © 2019 A

Deen School Of Engg. & Technology Sushont University Sect 1: 55, Gurugram



### Pratima kiran Mandadi, Dr.Neena Singh Zutshi

Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 6, June 2021:521-538

**Research Article** 

# Correlation Of Workplace Culture With Implication Of Wellbeing In Corporate Interiors - A Case Of Hyderabad (India)

Pratima kiran Mandadi<sup>1</sup>, Dr.Neena Singh Zutshi<sup>2</sup>

### Abstract

With the rapidly changing trend of the industrial sector and competitive world, the corporate sector of Hyderabad, India, is trying to boost their economy based on the strategy from their employee's perspective, which played an inevitable role in striving credential growth and sustainability. The quality of the work is directly linked with the quality of the workplace, which demonstrates the relationship between employee and workplace. The physical design, which influenced the employee to work dedicatedly, with creativity and capability and the management of the office, also influenced individual and organizational productivity of the workplace and its work culture. To comprehensively analyze the objective of the study, the qualitative methodology implemented where the survey conducted in Hyderabad Corporate sector, and the output reveals that million value flexibility, especially in the workplace and work-life, is very prominent. In this research, 86 samples are randomly collected, and the survey is conducted in online mode to obtain the perspective of the responders who voluntarily participated in the survey. In the survey, several questionnaires were asked from the participant, and the outcome is generated based on their responses. The data revealed that interior design strategies and tactics focused on workplace flexibility could positively impact high job productivity with the enhanced satisfaction for human capital. The paper shows that interior design strategies are crucial to enhance employee engagement, paving the way to understand their work culture and values. Interior designing is correlated with the productivity of the employee there work culture, which embraces a blissful and well-being environment, resilience workplace features, ergonomic, which directly impact productivity and transform the working mentality of employees.

Dean School Of Engg. & Technology Sushont University Sector 55, Guruaram



<sup>&</sup>lt;sup>1</sup> Ph.D Scholar, SoAP, G.D.G.U.

<sup>&</sup>lt;sup>2</sup> Professor, SSAA, S.U.



Available online at www.CivileJournal.org

**Civil Engineering Journal** 

(E-ISSN: 2476-3055; ISSN: 2676-6957)

Vol. 7, No. 02, February, 2021



# Evaluating Public Services Delivery on Promoting Inclusive Growth for Inhabitants of Industrial Cities in Developing Countries

Saniya Siddiqui<sup>1</sup>, Mohammad Nadeem Akhtar<sup>2\*</sup>, Jamal K. Nejem<sup>3</sup>, Mastour Saud Alnoumasi<sup>2</sup>

<sup>1</sup>Assistant Professor, Sushant School of Art & Architecture, Sushant University, Gurgaon, India.

<sup>2</sup> Lecturer, Dept. of Civil Engineering Fahad Bin Sultan University, P.O. Box 15700, Tabuk, Saudi Arabia.

<sup>3</sup> Assistant Professor, Dept. of Civil Engineering Fahad Bin Sultan University, P.O. Box 15700, Tabuk, Saudi Arabia.

Received 01 November 2020; Revised 21 December 2020; Accepted 13 January 2021; Published 01 February 2021

### Abstract

It has been debated that effective essential public services delivery is crucial to inculcate inclusive growth in cities over the past decades. Cities continue to be central to the debate; however, the current study focuses on industrial towns. As industrial towns' development around cities attract investment and promote economic growth, the present research studies the impact of essential public services delivery on promoting inclusive growth for inhabitants of industrial towns in developing countries. Human Capabilities Dimension Approach and its parameters (Social and Physical Infrastructure) have been employed to explore the role of basic amenities in transferring growth levels across all population sections. The idea explored is studied through Mandideep Industrial Town's case study, where six parameters (Physical and socioeconomic status, water supply, sanitation, health care facilities, education facilities), and perceived inclusive growth have been considered for data collection and analysis. Indicators under each parameter are analyzed based on the 4A's-Availability, Accessibility, Awareness, and Affordability. Site selection revolved around a city reconnaissance survey and Household survey for 200 households. Aggregated analysis for the city and ward-wise comparative analysis and statistical correlation tools were used to establish a relationship between basic public services delivery and perceived inclusive growth. The research aims to study and establish a correlation between public service delivery and perceived inclusive growth by the industrial town's inhabitants. Discussions following data analysis led to recommendations for city and ward-level. The importance of efficient service delivery for increased perception of inclusive growth is established. Along with the six parameters considered for the study, physical and environmental planning emerge as crucial parameters that impact other public services for enhanced inclusive growth in industrial cities.

Keywords: Basic Public Services; Inclusive Growth; Human Capabilities Dimension Approach; Industrial Cities; Health and Education Facilities; Safe Water and Sanitation.

### **1. Introduction**

Cities have always been critical to addressing poverty and inequality. "Inclusive growth covering the poorest of poor" has been considered the Indian government's top priority. However, as per the World Economic Forum (WEF), India continues to be a low-ranking country among emerging economies on an Inclusive Development Index (IDI) [1]. Inclusive growth concept worldwide continues to have critical unresolved issues rendering it operationally problematic [2]. Despite its shortcomings, it continues to be a concept that needs further exploration. Universal access to education, health services, and equal distribution of resources can support economic development and subsequent inclusive

\* Corresponding author: nakhtar@fbsu.edu.sa

http://dx.doi.org/10.28991/cej-2021-03091648

School Of Engg. & Technology Sushant University



© 2021 by the authors. Licensee C.E.J, Tehran, Iran. This article is an open access article distributed under the and conditions of the Creative Commons Attribution (CC-BY) license (http://creativecommons.org/license/

The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/0969-9988.htm

ECAM 29,2

1016

Received 2 July 2020 Revised 19 December 2020 16 February 2021 Accepted 12 March 2021

# BDM–MDM integrated solution concept for scheduling information-driven projects

J. Uma Maheswari Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi, India Purva Mujumdar School of Art and Architecture, Sushant University, Gurgaon, India S.P. Sreenivas Padala Civil Engineering, MS Ramaiah University of Applied Sciences, Bangalore, India, and

Abhishek Gwaskoti

Architecture, Central Public Works Department, Bhopal, India

### Abstract

**Purpose** – Scheduling in information-driven design phase of construction projects is challenging due to multiple entity types (teams, components, deliverables, activities or parameters) and their dependencies/linkages. Established techniques such as dependency structure matrix (DSM), beeline diagramming method (BDM), multiple domain matrix (MDM), etc. have been independently utilized in past to model information dependencies/linkages and associated iteration. However, there has not been a holistic solution yet for scheduling multiple entity types and their relationships. Hence, an integrated solution needs to be developed that schedules information-driven projects accurately.

**Design/methodology/approach** – A case study data collection approach is utilized. With data from two projects, i.e. hostel design and highway design, a BDM–MDM integrated solution was developed and applied to the same. Feedback from experts was obtained for refinements.

**Findings** – The proposed solution is efficient for scheduling multiple entity types and their information dependencies/linkages.

**Practical implications** – The proposed integrated solution enables the project participants to schedule information-driven projects systematically. Application to two distinct design cases emphasizes that the concept is generic and can be applied to any information-driven project with multiple entity types.

**Originality/value** – The BDM–MDM integrated solution concept is investigated for scheduling multiple entity types in any information-driven projects. This study also explored the terminologies such as multiple entity types and information-driven scheduling.

**Keywords** Beeline diagramming method (BDM), Multiple domain matrix (MDM), Multiple entity types, Linkages and associated iteration, Multiple information exchanges/dependencies/linkages, Scheduling **Paper type** Research paper

## Introduction

Scheduling in design phase of construction projects is primarily based on information flow amongst multiple entity types [team, component, deliverable, activities or parameter (Senthilkumar *et al.*, 2010; Mujumdar and Maheswari, 2018)]. There exist several types of relationships amongst these entity types such as independent, dependent, semi-independent, interdependent and cycles/loops (Lindemann, 2020; Bogus *et al.*, 2006; Yassine *et al.*, 1999; Yassine, 2004; Prasad, 1996). Conventional scheduling techniques (critical path method [CPM]/programme evaluation and review technique [PERT], precedence diagramming method [PDM]) can represent independent, dependent and/or semi-independent relationships only amongst single entity type.

Dependency structure matrix (DSM) (Steward, 1981) can schedule all types of dependencies, except semi-independent and iteration amongst single entity type only.

incol Of Engg. & Technology Sushant University Sector 55, Gurugram

NY CONTRACTOR



Engineering, Construction and Architectural Management Vol. 29 No. 2, 2022 pp. 1016-1037 © Emerald Publishing Limited 0969-9988 Dol 10.1108/ECAM-07-2020-0484

# ICACCG2020 30-31 July, 2020, Ansal University, Gurgaon, India International Journal of Technical Research & Science (Special Issue) ISSN No.:2454-2024 (online)

# DAYLIGHT PERFORATION INTO THE INTERIOR SPACES OF THE VERNACULAR HAVELI OF BIKANER

Tanaya Verma<sup>1</sup>, Dr. Tejwant Singh Brar<sup>2</sup>

E-Mail Id: <sup>1</sup>tanayaverma221@gmail.com, <sup>2</sup>brartejwant@yahoo.com Sushant School of Art & Architecture, Ansal University, Gurgaon, Haryana, India

Abstract- Vernacular architecture based on bioclimatic concepts was developed and used through the centuries by many civilizations across the world. Bikaner is a non-basin settlement in the hot and dry climatic region of India and cooling is the single main agenda for habitation as the temperature is very harsh. The vernacular architecture of the Bikaner Haveli's has provided a comfortable shelter against the harsh climatic conditions of the region. Solar radiation is very harsh and the region has the maximum number of sunny days. A survey of residential haveli's, more than 100 years old was carried out in the walled town of Bikaner. The objective of the investigation was to understand the daylight penetration into the interior spaces of the haveli. And also how intelligent architecture protects the interior spaces from excessive hear gain.

Keywords: Daylight, Vernacular Architecture, Thermal Comfort.

# **1. INTRODUCTION**

As the phrase goes "Change is the only constant", we have seen the impact of the current technological advances have affected the human race the most. The limitation in naturally available material and primitive construction system constrained earlier construction development. The design of shelter and the lifestyle of people depended on the immediate surrounding. Daylight is the main source of light and energy available to mankind. Sunlight also brings in the heat along with it. The clever architectural design can help in controlling the sunlight penetration into the interior spaces with minimizing heat gain because of sunlight. The vernacular architecture provides an excellent example on hoe to harness sunlight for its advantage and also create a thermally comfortable living space.

# 2. VERNACULAR ARCHITECTURE

"Building that belong to a place, that expresses the local or regional dialect" [1]

The origin of the word 'vernacular' finds its roots in the Latin word 'vernaculus' the meaning of which is native, domestic, indigenous or that which is indigenous of the local people. Vernacular can be said as the indigenous manifestation of local climate, geography, materials, customs and traditions of the people. If we look at the works of Rudofsky, Amos Rapoport and Paul Oliver on their concepts and understanding for the vernacular they have very correctly described by Rudofsky the term vernacular in the context of the architecture and it can be called as vernacular, anonymous, indigenous or rural. Environmental behaviourist Amos Rapoport cites that architects build only about 5% of dwellings, and the rest are indigenous architecture. Works of Paul Oliver 1960 "Shelter and Society" (1969) & Ammos Rapport's "House form and Culture" (1969) studies begin to emphasize less the beauty of the vernacular types and more the environmental technological, and social contexts in which they build. Vernacular architecture responds to the region and the social structure of the place. The rich architecture of the natives is like an open book it gives us clues on the rich culture, customs and traditions, philosophy of the local people the occupation and the socio-economic standing. As we study the various vernacular styles of the world, we see the distinct variations based on the location, need and climate of the place. The planning of the dwellings reveals the social and family structure of the place. Climatic design lessons are learned from observation of the long tradition of vernacular architecture [2]. In the book "House form and Culture" (1969) by Ammos Rapport and by Paul Oliver in his book "Shelter and Society" in 1960 has talked about the vernacular dwelling are more environmentally, and in tune with the context be it in terms of social, cultural context or the landscape they are built-in. As considered in bioclimatic approach, the Human stands as the central measure in architecture, surrounded by human physical and psychological reactions to the physical (luminous & sonic), environmental (climatic), and elemental (special & animate) [3] of [3]

## **3. HAVELI ARCHITECTURE**

The courtyard typology can be observed in many parts of the world Asia, middle east, or the Meditermean, and the technology courtyard provided the natural light and ventilation to the living quarters around it. The courtyard also acted as the central hub for all the religious and cultural activities of the household. The typology has endured centuries of developmental transformation because of the contextual and behavioural change in society [4]. Parmar gave the idea that the urban courtyard form developed from the rural village house. The haveli typology was a product of the prevalent condition of the society and also became a status symbol for its owner. The haveli could be a single-storied to a double or even a four-storied structure. The Havelis in India date from as early as the 1600s to the early 20th century [5].

DOI Number: https://doi.org/10.30780/specialissue-ICACCG2020/008 Paper Id: IJTRS-ICACCG2020-008

@2017, IJTRS All Right Reserved, www.ijtrs.chi



# Vernacular Havelis of Bikaner: Indigenous Method for Thermal Comfort

# Tanaya Verma, Tejwant Singh Brar

Abstract: Vernacular architecture based on bioclimatic concepts was developed and used through the centuries by many civilizations across the world. Bikaner is a non-river basin settlement in the hot and dry climatic zone of India and cooling of indoor spaces is the single main agenda for habitation design as the temperature is very harsh throughout the year. The vernacular architecture of the Bikaner Haveli's has provided a comfortable shelter against the harsh climatic conditions of the region and has survived for many decades. Physical analysis of the Haveli's provide with substantial data on their thermally comfortable design. The indigenous approach of its inhabitants for achieving comfort in these harsh climatic conditions is an exciting study area. Acclimatization plays a vital role in the perception of thermal comfort, and the younger generation does not perceive the same situation as comfortable as their parents and the natives of the land due to behavioural change. Bikaner have many Havelis dating over 250 years old, and these are master examples of vernacular architecture built by the indigenous community in response to the geographical location, climatic condition, and emerging from their cultural needs. The objective of the research is to understand indigenous cooling systems employed by the people and how they work. The process of physiological adjustment that takes place when subjected to stressful situations. The results show that the natural and passive design systems provide a comfortable indoor environment irrespective of the outdoor climatic variation. Is it more useful to re-introduces the native ways of lifestyle practices rather than adapting to global ways of living. In the paper, an attempt to bring forth the climate responsiveness, appropriateness and the adaptive lifestyle of the inhabitants of the vernacular Havelis of Bikaner.

Keywords: Thermal Comfort, Bioclimatic, Acclimatization, Vernacular.

### I. INTRODUCTION

Vernacular architecture is the architecture of the native community, evolving out of their understanding, assessment and need for shelter in the given geographical constraints. Vernacular Architecture use locally available material for construction, using experience and traditional knowledge systems to tackle the external climate for creating a livable comfortable interior space. The whole aim is to minimize the sensation of discomfort indoors and promote healthy living. The social, economic, cultural and occupational patterns are all manifested in the environmental constraints

Revised Manuscript Received on March 2, 2020. Correspondence Author

Tanaya Verma \*Associate Professor, Sushapt School of Art & Architecture, Ansal University, Gurgaon, India,[1]+/ 99/0636888, tanayaverma@ansaluniversity.edu.in

Dr. Tejwant Brar, Professor, Department of Art Andrew Sushant School of Art & Architecture, Gurgaon, Harring, Indi

Retrieval Number: D10240394S20/2020©BEIESP DOI: 10.35940/ijitee.D1024.0394S20



Dean

of the geographical location. Shelter design, clothing styles, farming patterns and crop selection are all done with the knowledge and experience gained from hundreds of years and Transferred generation to generation as the best means to adapt the environmental factors. With the traditional knowledge practices on how adaptive ways of lifestyle can mitigate the climate or situations which are uncomfortable are of great importance for the current and future generations. The sensation of comfort is a personal feeling, and one can say if there is no discomfort, then one is in a state of comfort. Many researchers have addressed the quantitative aspect of thermal comfort, but have not considered: cultural, social and economic dimensions in the evaluation of thermal comfort.

The current government initiative for providing housing for all and in that process, building mass housing which is required fast for the growing population poses an immense challenge for the designers. With the new housing trend and globalization, it is turning our towns and cities into a concrete jungle. We observe that the houses constructed in Kerala, Assam, Simla or Bikaner all look the same. They are similar in their choice of construction material and planning style, services or employing mechanical means for achieving thermal comfort be it for heating or cooling of the interior spaces. The new construction shows no empathy to the local environment, climate or the local customs or traditions. With the advent of television and social media, the world has become a smaller palace, and physical barriers have collapsed. The flow of information has never been so fast than now. This has influenced the society in all aspects, be it the food choices, clothing styles, lifestyle, culture and traditions everything is affected by this exchange of crosscultural communication. Hopes and aspiration of the people for a better lifestyle is leading them to explore and incorporate the new technological advancements, which resulted in putting stress on the climate and energy usage for thermal comfort.

The purpose of this paper is to analyze the physiological and psychological concept of comfort and how cultural adaptation has resulted in achieving thermal comfort levels. Thermal comfort has been a topic of research for many

years, and researchers have looked at various components which can affect thermal comfort. Is thermal comfort a physical parameter which is a mathematical component. Are all the parameters of air temperature, relative humidity and School Of Enggwind velocity if achieved to a given equation will result in Sushant University perfect level of thermal comfort? Is comfort only dependent on the physical parameters or we need to study anything else also? Thermal comfort is experienced by an

individual in a space when he is acted upon by the stress of the climate, the design of the space, the

Published By: Blue Eyes Intelligence Engineering & Sciences Publication



(Chap2)

Volume 4, Issue 2 • 2021

# INTACH Journal of Heritage Studies

ichoni Of Engg. & Technology Sustant University 55, Gurugram

Heritage and Well-being

# **INTACH** Journal of Heritage Studies

Volume 4, Issue 2 • 2021

# Heritage and Well-being

School Of Engg. & Technology nt University 55, Gurugram

Indian National Trust for Art and Cultural Heritage

Aryan Books International





	Message from Member Secretary's Desk iii Editorial
1	Conservation of Heritage under Conflict: The Importance and Necessity of Community Engagement Abhilasha Sharma
2.	Cultural Ecology and Happiness, a Case Study of Western Bhutanese Settlements Amrita Madan, Yash Pratap Singh Shekhawat and Piyush Das
3.	Urban Green Spaces and Well-being: A Case of Taljai Hills of Pune Archana Gaikwad
4.	
5.	Correlating Heritage and Well-being: A Step Closer towards Sustainability Parul Zaveri
6.	Museums and Well-being Poornima Sardana
7.	
8.	Relationship of Architectural Heritage and Well-being: Case Study of Pols of Ahmedabad, India Sneha Kishnadwala
9.	Langar, the Communal Meal and its Impact on Well-being Stuti Gandhi
10.	Community, Culture and Conversation Swapna Kothari
4	The Heritage of Everyday; Lesser Known Well-being of City-life Tapan Mittal-Deshpande and Mugdha Kubade

1 N 12 14 1

2

æ,

Amrita Madan is a practising architect since 1997 having completed a Master's in Landscape Planning in 2001 and an M.Phil. (Urban Theories) in 2002 from France. She has taught architectural design since 2002, leading undergraduate and postgraduate studios at the Sushant School of Art and Architecture, India and at Versailles and Lille in France structuring course curricula and mentoring faculty teams. In her practice of over 15 years at Atelier Anonyme Design, a multidisciplinary design firm, Amrita has worked as an exhibition designer for a number of cperientials design projects.

2

Yash Pratap Singh Shekhawat is an architect, a conservation architect and an academician. He has a B.Arch. from the Aayojan School of Architecture, Jaipur and a post-graduation specializing in Architectural Conservation from the School of Planning and Architecture, New Delhi. Based in Gurugram, he runs an architectural practice called Techarch Studio. He is also visiting faculty at the Sushant School of Art and Architecture, Gurugram. His areas of research are historic landscapes, sustainable built environments and urban building documentation resulting in publications for the cities of Jaipur, Kishangarh and Bikaner, and number of conservations projects in Punjab, Himachal Pradesh, Madhya Pradesh and Rajasthan.

Piyush Das is an architect with a specialization in Architectural Conservation. He has not only been involved in various conservation. projects across the country but has also been active in the research of significant cultural landscape sites such as Mathura, Kishangarh, Bhubaneswar, Chanderi, Mchrauli, Puri, Mahanadi Delta and the coastal belt of Odisha. He is the author of Memory of a Stream - Sacred Cultural Landscape of Ekamra Kshetra, Bhubaneswar and Built from the Purana which is due to be published. He is currently Assistant Professor at the Sushant School of Art and Architecture, Ansal University.

# Cultural Ecology and Happiness, a Case Study of Western Bhutanese Settlements

Amrita Madan, Yash Pratap Singh Shekhawat and Piyush Das

School Of Engg. & Technology

Key Words: Inclusivity, safety, resilience, sustainable practices, Western Bhutanese Settlements

The idea of well-being is rarely explored when seen through the perspective of continuum of traditional knowledge systems. Knowledge creation, knowledge retention and knowledge transfer are some of the methods to evaluate the components of significant cultural ecosystems. These anthropological methods also give directions to uncover very delicate yet very strong connections between one's 'being well/happy' and the authentic dependency on the larger continued and perceived cultural ecosystem.

Complex historic regions of Bhutan showcase exemplary practices of associating their tangible and intangible inheritance (cultural & natural) with well-being, creating unique interpretations of the idea. Through an intensive primary study that is supported by philosophical underpinnings, in this paper, we explore cultural and spatial processes involved in the continuation of traditional knowledge systems; the manner and degree of exploitation of nature; the dependency and independency between culture and nature; and the sophisticated yet blurred line differences between the tangibles and intangibles. This inquiry into Bhutan, establishes how such extensive components of heritage, as evidenced in their urban centres, are directly linked with the continuing cultural practices, livelihood practices that, in turn, establishes the notion of being contended. We explore some of the settlements from the western region of Bhutan, using anthropological theories to evaluate the inclusivity, safety, resilience and sustainable practices in Western Bhutanese Settlements.



(AA-2-1

### Impact of Contemplative Spaces and Sacred Geometry on Spiritual Development

Smruti Raghani<sup>1</sup>, Tejwant Singh Brar<sup>1</sup>, Mohammad Arif Kamal<sup>2,\*</sup>

<sup>1</sup>Sushant School of Architecture, Sushant University, Gurgaon, Haryana, India <sup>2</sup>Architecture Section, Aligarh Muslim University, Aligarh, India \*Corresponding author: architectarif@gmail.com

Received May 03, 2021; Revised June 11, 2021; Accepted June 20, 2021

Abstract Spirituality is a concept that has deep meaning in the universe and is independent of time and place yet connected to architecture. It is a broad notion that touches everyone. The sense of Spirituality and its interrelation with architecture is a topic that needs research. Today's architecture requires an explanation for its effects on the spiritual growth of an individual. The term spirituality is not widely observed in today's architecture and is not used in most contemporary architecture. The past architect being aware of the spiritual growth's significance had shaped an architecture that was proportionate to that time's culture and beliefs. By using architectural elements, they had filled the objective body with spiritual beliefs. This paper presents the impact of contemplative spaces and sacred geometry on the spiritual development of a person and also it studies the relationship between spirituality and architecture. This paper also discusses how architecture and contemplative spaces accelerate the recovery rate and the individual's spiritual journey.

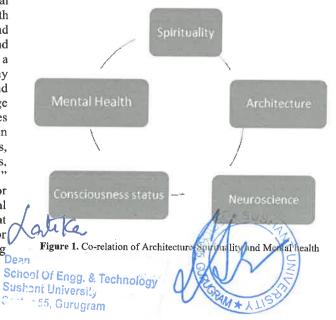
Keywords: contemplative spaces, sacred geometry, spiritual development, architecture, mental health

**Cite This Article:** Smruti Raghani, Tejwant Singh Brar, and Mohammad Arif Kamal, "Impact of Contemplative Spaces and Sacred Geometry on Spiritual Development." *American Journal of Civil Engineering and Architecture*, vol. 9, no. 2 (2021): 59-63. doi: 10.12691/ajcea-9-2-3.

### 1. Introduction

Human belief, in the unseen world and the mystical universe is the core of an individual's spiritual development [1]. Spirituality is defined in different ways by different people. It is defined as a set of values and beliefs about self and universe considering own and other's mental health. At the same time, it is the lost aspect of mental health. The spiritual entity is considered to find life's meaning, divine love and harmony, inner and mental peace, innermost power, understanding birth, and death cycle. It connects to a person's kindness, humility, and ability to forgive and encourages honesty, patience, and empathy. Being multidimensional makes spirituality a complicated concept to define and difficult to form any boundaries. Spirituality has different perceptions and meanings for every individual [2]. The Cambridge dictionary defines spirituality as "The quality that involves deep feelings and beliefs of a religious nature, rather than the physical parts of life." Collins's dictionary says, "Spiritual means relating to people's thoughts and beliefs, rather than to their bodies and physical surroundings." Whereas the Oxford dictionary says, "Relating to or affecting the human spirit or soul as opposed to material or physical things." Dr. Maya Spencer explains that Spirituality involves recognizing a feeling or sense or belief that there is something greater than me, something

more to being human than sensory experience, and that the greater whole of which we are part is cosmic or divine. Another researcher, Aldridge, in his book regarding spirituality and modern medicine, cites at least 24 definitions of spirituality. It can be stated that there are many meanings and definitions to spirituality and depending upon the perception of an individual. It will always vary. Hence, there are difficulties with the definitions of spirituality since it states the concepts of universal connection, God, etc. though it is a subjective reality, not an objective one [3].





Home (https://the-new-arch.net/index.php/journal/index)

/ Archives (https://the-new-arch.net/index.php/journal/issue/archive)

/ Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26) / Articles

# A Study on Bridging the Gap between Academia and Architecture Practice in India

PDF (https://the-new-arch.net/index.php/journal/article/view/262/237)

Ar. Hemlata Budhwar, Dr. Naveen Nandal, Dr. Tejwant Singh Brar

# Abstract

ArchitectureEducationisthoughttobecrucialinthecreationandshapingofbetterspacesthrough the discipline. However, due to rapid Technological changes, Architecture Education has found it difficulttokeepupwiththeProfession.Asaconsequence,thereisasignificantdifferencebetween theory and reality. The rapid speed of Technological change necessitates well-managed and realistic aspects of the Curriculum structure. This paper looks at the current state of Architecture EducationinIndiaandtheTechnologicalchangesthatareneededtoreducethegapbetweentheory and practice.

Issue

Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26)

Section

Articles

(https://creativecommons.org/licenses/by-nd/4.0/)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

CC Attribution-NoDerivatives 4.0



Dean School Of Engg. & Technology Sushant University Conf. 155, Gurugram

SHH-23

International Journal of Advanced Research in Engineering and Technology (IJARET) Volume 12, Issue 3, March 2021, pp. 766-786, Article ID: IJARET\_12\_03\_071 Available online at http://www.iaeme.com/IJARET/issues.asp?JType=IJARET&VType=12&IType=3 ISSN Print: 0976-6480 and ISSN Online: 0976-6499 DOI: 10.34218/IJARET.12.3.2021.071

© IAEME Publication Scopus Indexed

# CATENARY BASED THIN SHELL: BIO-INSPIRED FORM AND STRUCTURE

### Atul Setya

School of Architecture, Lingayas Vidyapeeth, Nachauli, Jasana Road, Faridabad, Haryana, India

### Dr. Tejwant Brar

Ansal University, Department of Architecture, Golf Course Road, Huda, Sushant Lok-2, Sector 55, Gurugram, Haryana, India

Nitti Negi

School of Architecture, Galgotias University, Yamuna express way plot no.-17A, Greater Noida, India

### Vidhi Agarwal

School of Architecture, Galgotias University, Yamuna express way plot no.-17A, Greater Noida, India

### ABSTRACT

Â.

Human being always tries to make his own signature or presence by developing shelters and settlements. In his first attempt they just learn from nature and use its simpler form of complex nature structural system. They use to understand this complex system by attempt of defining it through mathematical and geometrical tools. Through these attempts they are getting closure to nature structural system. They also learn stability and variability in natural structures are because of potential energy inside the structures.

Biomimicry leads to imitation of living nature that is highly interdisciplinary and involves understanding the functions, structures and principles of various objects in nature that lead to inspired design, adaptation and derivation from living nature.

This paper will focus the evolution of bioinspired design and how it manifests in built-environment through different forms and structures in evolved from nature.

The study has intended to show new approaches to have new era of architecture, by taking inspiration from nature in different perspectives.

Key words: Nature, Inspiration, Forms, Structure, Catenary.

atila



http://www.iaeme.com/IJARET/index.asp

766 ushant University

5AA) - 24

International Journal of Advanced Research in Engineering and Technology (IJARET) Volume 12, Issue 3, March 2021, pp.520-563 Article ID: IJARET\_12\_03\_049 Available online at http://www.iaeme.com/IJARET/issues.asp?JType=IJARET&VType=12&IType=3 ISSN Print: 0976-6480 and ISSN Online: 0976-6499 DOI: 10.34218/IJARET.12.3.2021.049

© IAEME Publication Scopus Indexed

## CATENARY BASED FERRO CEMENT SHELL: EVOLUTION OF STRUCTURAL SYSTEM

### Atul Setya

School of Architecture, Galgotias University, Yamuna express way plot no 17A, Greater Noida, India

### Dr Tejwant Brar

Ansal University, Department of Architecture, Golf Course Road, Huda, Sushant Lok 2, Sector 55, Gurugram, Haryana 122003, India

### Abhishek K Srivastava

School of Architecture, Galgotias University, Yamuna express way plot no 17A, Greater Noida, India

### ABSTRACT

From the beginning of living history, human wants to create or separate from nature by making subset environment to achieve their different goals or comfort. These goals may be define as protection from nature and other living creatures, enhancing comfort and masking/hiding valuables. These attempts are known as architectural designs and structural innovations, here architectural design is physical art and act of resolving the conflict and his environment and structural innovation are the product of architectural design process with respect to resistance to nature and other threats. In this paper we will discuss evolution of structural systems through historical continuity, regional and specific site conditions, societal mentality and technological advancement.

Key words: Structural system, Nature, Climate-change, Evolution, Materials, Geometry.

**Cite this Article:** Atul Setya, Tejwant Brar and Abhishek K Srivastava, Catenary Based Ferro Cement Shell: Evolution of Structural System, *International Journal of Advanced Research in Engineering and Technology (IJARET)*, 12(3), 2021, pp. 520-563. http://www.iaeme.com/IJARET/issues.asp?JType=IJARET&VType=12&IType=3

### **1. INTRODUCTION**

Structure is an essential requirement in the process of forming the architectural final product "the building" and also in the development of space in architecture. Imagination of built form without proper structural system is just idea which cannot be uncertailized. A significant

http://www.iaeme.com/IJARET/index.asp



editor@iaeme.comEngg. & Technology Sushant University Sector 55, Gurugram

Review

### Exploration of prefabricated building system in housing construction

Neha Gupta<sup>1</sup>, Mohammad Arif Kamal <sup>2,\*</sup>, Tejwant Singh Brar<sup>1</sup>

1 Shushant School of Art & Architecture, Ansal University, Gurgaon, India.

2 Architecture Section, Aligarh Muslim University, Aligarh, India.
 \* Cor responding Author: <u>architectarif@gmail.com</u>

#### Received: 31-12-2020

Accepted: 04-02-2021

**Abstract.** The main purpose of this paper is to examine the development and current status of prefabrication techniques and their application in building construction and why its use is still limited in the housing sector in India and why prefabrication is not being used so far to provide affordable housing to all. Prefabrication is the practice of assembling components of a structure in factories, and then transporting the complete assemblies or sub-assemblies to the construction site where the structure is to be located. The important aspect is how much of a potential difference it can establish so that appropriate development can be implemented. This paper reviews the current prefabrication system scenario for housing in India. The paper begins with a brief introduction about different types of prefabrication system. Subsequent topics address the need of prefabrication and ethical dilemma of technology transfer for prefabricated building system in India. In this paper, a qualitative descriptive evaluation research method has been used. The research methodology comprises of case studies, visual observation and data collection. Finally, two case studies around the world have been presented to validate and illustrate the various modern trends and application of design and construction methods of prefabricated building system in housing.

Key words: Prefabrication, building, construction system, housing, India.

### **1. Introduction**

The Prefabrication is defined as the assembly of buildings or their components at a place other than the building site. It is often referred by new term Modern Methods of Construction (MMC) in an order to reflect technical improvements in prefabrication, encompassing a range of on and off-site construction methods. The term 'modern methods of construction' covers a wide range of products, including everything from individual building components to entire factory-built structures and modules. The recently available are volumetric elements, such as fully fitted bathrooms or kitchens. The hotel sector has embraced these elements on a large scale. Emergence of a lot of factory-made cladding solutions using everything from traditional bricks to modern composites can be seen (Arieff and Burkhart, 2002).

The use of prefabrication can be useful to achieve results for the society's needs because the fast changing environment, industrialization, residential need and many other factors of transportation like bridges, towers, railways calls for fast settlement and requirement for buildings, offices and industries, hence prefabrication can be the solution for fast construction. The quality of construction will be much higher when components of housing are manufactured in a stable environment such as factory. This is especially true in India where, prefabrication had already become synonymous with modern and western construction methods. Materials are used more efficiently, safe from climatic damage, and can be reused. Because of these benefits, a general consensus in India is to move towards prefabricated building systems in housing. In this fast growing population country, it is necessary to have more residential with lesser cost and lesser time. Cost reduction can be made by several ways and one such way is to use prefabrication. To reduce the overall cost and greatly to reduce the construction time,

ISSN 2353-0057, EISSN : 2600-6936

Dean School Of Engg. & Technology Sushant University Sectur 55, Gurugram



# **Exploration of Catenary Based Ferrocement Shell Structures: Form, Design and Architectural Interventions**

### Mohammad Arif Kamal<sup>1,\*</sup>, Atul Setya<sup>2</sup>, Tejwant Singh Brar<sup>3</sup>

<sup>1</sup>Architecture Section, Aligarh Muslim University, Aligarh, India <sup>2</sup>School of Architecture and Design, Galgotias University, Greater Noida, India <sup>3</sup>Shushant School of Art and Architecture, Ansal University, Gurgaon, India

**Abstract** The structure or a building is primarily defined by its form and material. The Catenary is a form defined by hanging chain which has been used over centuries to build arches, vaults etc by architects and engineers. A unique insight into this very innovative form has been provided by history as well as by present day construction techniques. Ferrocement has a long lineage from its discovery in the year 1848 A.D. to present times. The material, ferrocement today exists as a sustainable and ecofriendly material acting as a challenge and research area for designers. In this paper, a qualitative evaluation research method is used. The research methodology comprises of case studies, visual observation and data collection. This research presents history, properties and application of catenary shells and ferrocement structures. In this paper the basic concepts of catenary based ferrocement shell has been studied. The paper also emphasizes the reason for catenary shells as a 'form' and ferrocement as a 'material' combined together could provide economically viable and sustainable solutions to building structures. The study of thin shell structures is also validated and analyzed with five case studies around the world paper in this research paper.

Keywords Catenary, Ferrocement, Shell, Structures, Design, Architectural Concepts

G

### **1. Introduction**

Catenary is a form of a non- rigid supporting element. The basic concept of selecting a non-rigid, flexible element is that it conveys only axial, tensile forces and when inverted, the thrust line so produced is idealized form of rigid arch (Figure 1) which when loaded by dead weight (uniform distributed load) is free from bending moments and stressed by axial compression only. Catenaries are so common and familiar that we scarcely notice them but they are found everywhere in nature, capillaries in plants, bones, cells, spider webs etc and in man-made structures like suspension bridges, anchor lines, transmission lines etc. The relationship between a catenary curve and line of support was first recognized in 1675 by Robert Hooke and its equation was derived by Leibniz, Huygens and Johann Bernoulli in 1691. Apart from catenary research in the field of construction, extensive research has been done the field of Rail Transport, Mathematics, Medicine and Ocean engineering [1] [2] [3] [4].

Catenaries in buildings were extensively used in gothic era to make stable arches and vaults but it was Architect Antoni

architectarif@gmail.com (Mohammad Arif Kamal) Received: Aug. 5, 2020; Accepted: Aug. 27, 2020; Published: Sø

Published online at http://journal.sapub.org/arch

Gaudi (1852-1926) who used inverted chain models to make impressive organic style buildings (Figure 2). These were inspired from nature and was a part of early modern movement [5] [6].

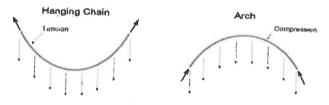


Figure 1. Hanging chain load flow diagram



gure 2. Catenary roof architecture of Casa Batlló by Antonio Gaudi

Dear School Of Engg. & Technology Sushant University Sector 55, Gurugram

<sup>\*</sup> Corresponding author:

Home > Architecture > Design >	Architectural Engineering > Architec	tural
Education	_	
Article		
Traditional Building Knowledge: ( Education in India	Contemporary Relevance for Archite	cture
January 2020 · The International January 2020 · 14(2):89-102	Journal of Design Education 14(2):8	9-102
DOI:10.18848/2325-128X/CGP/v	14i02/89-102	
Authors:		
Navin Piplani The University of York	Tejwant Singh Brar	
Request full-text		
O To read the full-text of this re the authors.	search, you can request a copy dire	ctly from
Citations (5)		
Discover the world's resea	irch	
<ul> <li>25+ million members</li> </ul>		
<ul> <li>160+ million p blication</li> </ul>		
pages 2.3+ billion citations	Join for free	
Spol	nsored videos	
•		INT
	٨	SAL
	Notita.	Sal UKIV
	Dean	SET .
	School Of Engg. & Technol	ogy
	Sushant University Sector 55, Gurugram	-0, 60

Request full-text PDF

No full-text available

To read the fulltext of this research, you can request a copy

# Reconnecting the City to its Riverfront: A Case of Kolkata

#### **RAJORSHI BANERJEE**

Masters of Urban Design, Sushant University, Gurugram

NIDHI DANDONA Associate Professor, Sushant University, Gurugram

SURUCHI MODI Associate Professor, Sushant University, Gurugram

### **SHIVANI SAXENA**

Environment Planner, National Mission for Clean Ganga, Ministy of Jal Shakti, Gol

### Abstract

Kolkata, one of the major metropolitan cities in India, owns a great and heroic past, bearing its unique heritage and culture, owes its creation to its strategic location along the east bank of the river Hooghly, a distributary of the river Ganges. The banks of the river, once the lifeline of the people, remained bustling with different activities. They have become deserted areas, dotted with shabby old structures, disconnected with the city, and devoid of erstwhile scenic views. In the recent past, the riverfront has become the backyard of the city, derelict of any desired activity leading to escalating environmental and urban issues. The river-edge precincts and its neighbourhoods have died out in terms of their social association with the river. It is evident that the city has lost the social eminence of its riverfront because of the indifferent behaviour towards its revival. A discussion in response to the social issues of an urban river has been elaborated within the paper. This research paper explored the principles of building a framework of developing tools for redefining the value of an urban riverfront through strengthening its cultural and social bonds with the city.

Keywords: Degrading Urban Landscape, Riverfront Development, Social Recognition, Cultural Exposure, Heritage Restoration

School Of Engg. & Technology Sushant University Cector 55, Gurugram



# Awareness of the Various Investment Options Available for Tax Planning

Pankhuri Agarwal<sup>1</sup>, Professor (Dr.) Vipin Jain<sup>2</sup> and Dr. Surabhi Goel<sup>3</sup>

<sup>1</sup>Research Scholar, TMIMT, Teerthanker Mahaveer University, Moradabad (U.P.)

<sup>2</sup>Principal, TMIMT, Teerthanker Mahaveer University, Moradabad (U.P.)

<sup>3</sup>Assistant Professor, Ansal University, Gurugram (Haryana)

Abstract: Tax planning is not only a means of reducing tax liability but also a measure for taking maximum benefit of all the deduction exemption reliefs allowed under income tax provisions. The tax structure of country India is highly complicated which reduces the purchasing power of the individual to a high limit so in that case tax planning is the most suitable method as the best part of it is that come under the legal compliance and benefit in two ways i.e. right investment and reduced tax liability. In the current scenario women's role in the society is changing at a great level as they are not only becoming financial independent but also playing a major role in the financial decision making of family so it is very important for today's women's for having awareness about all tax planning measures. The aim of this paper is to study the awareness level among working women. It also studied about the various measures of tax planning and their investment pattern and preferences adopted by Indian women tax payers. The study conducted in the city Moradabad which is situated in the state Uttar Pradesh.

Keywords: Tax Planning, Financially Independent Women, Investment Preferences.

### Article History

Received: 13/10/2020; Accepted: 15/11/2020 Corresponding author: Pankhuri Agarwal

### Introduction:-

From the certain ages in India almost all the important decisions of a women life are taken by her brother, father or husband including the decisions relating to finance. However, in the current scenario the women's are stepping out from the boundaries and making an independent career for themselves. The women are not only climbing the professional ladder at an increasing rate but also acquiring the required financial knowledge so that they can be able to manage their finances with their own, but for managing the finances independently and efficiently it's very necessary to have a correct financial knowledge. To be financially independent besides of





School Option, Sushant niversit, Cector 55, Gurugram

### A comparison of Post-Merger Financial and Human Resource Impact on Indian Banking Industry between 2001-2018

Surabhi Goyal

School of Business, Sushant University erstwhile Ansal University Gurugram, Haryana, India E-mail: connecting2surabhi@gmail.com

### Shruti Gupta

Army Institute of Management & Technology Greater Noida, Uttar Pradesh, India E-mail: shrutigupta1677@gmail.com

[Abstract]. Performance of Indian Banking system has improved manifolds since the past two decades. Major and repetitive corporate restructuring was being followed throughout the world. Most of the mergers failed due to mismanagement of the post-merger scenario. This paper gives an insight into the post-merger scenario of Indian Banking system between 2001 and 2018. The impact was studied from both Finance and HR perspective using Data Envelopment Analysis (DEA) and Content analysis wherein 13 cases including both public and private banks have been considered. Results have shown that the HR scenario of the post-merger banking sector has been more successfully tackled than the financial scenario. In this study, based on literature reviewed, certain input and output performance variables were identified. After analyzing different factors playing a vital role in merger of public and private banks, an attempt is made to understand the criteria to be kept in mind for future bank mergers.

[Keywords]Banking, Content analysis, DEA analysis, Performance, Finance, Human Resource

### Introduction

Indian Banking system is known to be one of the most robust systems in the world. The phenomenal growth of the Indian banking industry has changed its profile, with a growing emphasis on human involvement. Many commercial banks offer a fairly wide variety of items, including checking accounts, loans, credit cards, debit cards, depository services, investment advice, bill payments, ATMs, telephone banking, online banking and mobile banking, and other transactional services. It's rooted in the Vedic Period, but it wasn't well organised. Since the 20th century, it has become the "Life Blood" of trade and commerce.

### Corporate Restructuring of Indian Banks

During the 90s, with the introduction of New Economic Policy, many new international banks and financial institutions entered Indian Banking system. As a result, Indian banks have undergone significant transformations, such as regulatory reforms, massive growth in risk management financial instruments, the advent of e-commerce and online banking, etc. (Atma, Bhavani, 2017). Due to this the performance of old school banks declined due to stringent policies, which later forced RBI to ask banks to merge willingly or forcefully with others. Although the first merger occurred in 1921 when the Imperial Bank was founded. New Generation's tech-savvy banks, such as HDFC Bank, ICICI Bank, Oriental Bank of Commerce, IndusInd Bank and



Deen School Of Engs Riechtion Sushant University Sector 55, Gurugram

### Rise In The Stress And Job Dissatisfaction Level Among The Workforce Post Merger With Reference To Bank Of Baroda Merger

### Antima Gulia

Research Scholar, Sushant University, Gurugram Email: Antimagulia.Phd19@Sushantuniversity.Edu.In, Dr. Surabhi Goyal

Assistant Professor, Sushant University, Gurugram Email: Surabhigoyal@Sunushantuniversity.Edu.In

### Abstract

Merger And Acquisition Bring Large Numbers Of Critical And Imperative Changes. The Banking Industry Has In The Last Couple Of Years Seen Revolutionizing And Phenomenal Changes, Which Are Brought About In Lieu To Grow And Expand. The Sbi Merger With Its Associates Was One Such Example (1<sup>st</sup> April 2017). In 2018 Government Came Up With The Plan To Merge Bank Of Baroda, Dena Bank, And Vijay Bank, Which Was Eventually Sanctioned And Approved By All Three In January 2019 Making It The Country's Third-Largest Lender. During Both, The Mergers Country Faced Agitation And Resistance Against The Government's Decision, Which Proves To Be The Reason For Stress And Anger Among The Banking Workforce Across The Nation. The Biggest Challenge For The Management Is Now Regarding The Human Resource This Study Aims To Determine The Employee's Perception Towards The Job Satisfaction Level Post-Merger. The Research Methodology Adopted Is Descriptive In Nature And Depends On Secondary Resources. The Study Found Out That A High Degree Of Integration Is Required As The Banks Have Different Cultures, Which Leads To A Risk Of Cultural Clashes. The Results Also Revealed Several Factors, Which Were Responsible For The Stress And Dissatisfaction Level, Which Include Poor Communication, Insecurity, Uncertainty, And Fear Of Dislocation.

Keywords: Merger And Acquisition, Bank Merger, Job Dissatisfaction, Human Resource, Employee Stress

### Introduction

With An Outlook To The Success And Gain Of Their Businesses, Mergers Have Put Down All Their Focal Point On Economic And Political Unreliability And Uncertainty, While Shutting One's Eye Towards Employee Morale And Wellbeing During The Course Of Transformation And Integration. The Human Workforce (Human Capital) Is Often Neglected And Left Out During And After A Merger. Rarely Any Initiatives Have Been Taken By The Authorities To Assess And Weigh The Result Of The Bank's Merger And Acquisition On The Workforce And Staff Of The Bank. Mergers And Acquisitions Usually Have A Gloomy And Adverse Impact On Employee Behavior Developing Biased Practices, Job Dissatisfaction, Absenteeism, Poor Morale, And Low Motivation. Several Frameworks Have Been Studied By The Researchers To Understand The Reaction Of The Workforce

Website: www.efflatounia.com

365 Dean School Of Englishing Steelup 1001 , Sushant University Cector 55, Gurugram Efflatounia ISSN: 1110-8703 Pages: 390 – 403 Volume: 5 Issue 2

### Impact Of Demographic Variables On Job Satisfaction (A Study Of Bank Merger)

### Dr. Surabhi Goyal

Assistant Professor, Sushant University, Antima Gulia Research Scholar, Sushant University, Gurugram

### Abstract

The Purpose-The Following Study Aims To Measure The Job Satisfaction Among Banking Professionals Based On Demographic Variables Such As Age, Gender, Qualification, And Tenure, Etc.

A Methodology-Structured Questionnaire Was Used For The Data Collection From The Respondents. Employees Of Vijaya Bank, Dena Bank Were Taken Into Consideration For The Survey. The Sample Size Of 60 Employees Was Taken For The Study. Further Independent T-Test, Annova Was Applied For The Analysis Of Data Gathered With The Help Of Spss.

**Findings**-The Results Revealed That There Does Not Exist Any Significant Difference Among Job Satisfaction And Qualification And Gender, Also There Is A Significant Difference Among The Job Satisfaction And The Age And Tenure Of Employees

**Research Limitations-** The Major Limitation Is That The Results Of The Study Are Quite Limited Due To The Use Of Convenience Sampling And A Small Sample Size. Also, The Variables Are Restricted To Demographics Only, Which Does Not Generalize The Results.

Keywords-Job Satisfaction, Demographic Variables, Banks, Merger Impact

#### Introduction

Human Resource Is The Most Crucial And Most Inevitable Asset For Any Organization. It Is Considered The Most Important Requirement For The Overall Development Of The Firm As Well As The Nation. But In Today's Dynamic And Ever-Changing Environment The Firm Faces A Lot Many Challenges In Retaining And Keeping Employees Satisfied. (Rodriguez, 2008) There Are Several Studies Undertaken By The Researcher So Far To Connect The Job Satisfaction And The Engagement Of The Employees. The Opinion Of The Employees Towards The Organization Links Their Performance And Productivity As Well. The Most Efficient And Effective Force That Drives The Performance And Productivity Of The Employees Is Their Job Satisfaction. The Management Needs To Take

Website: www.efflatounia.com



### "Covid-19 and Stock Market Behavior – An Event Study of BRIC Countries"

### Dr. Kanika Sachdeva<sup>1</sup> & Dr. P. Sivakumar<sup>2</sup>

<sup>1</sup> Associate Professor, School of Business, Sushant University, Gurugram. Email: <u>kanika.mba88@gmail.com</u>
 <sup>2</sup> Director, I Business Institute, Greater Noida. Email: <u>shiva28775@gmail.com</u>

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

#### Abstract

The purpose of this research is to estimate the influence of COVID-19 epidemic on the behavior of stock markets in BRIC nations. The effects of infectious disease are important, and they have had a direct effect on financial markets around the world. Our sample is made up of BRIC country indices. The market model event methodology approach was used to conduct the analysis. The event window is considered as 72 days after the announcement of Novel COVID-19 as human transmitted disease in the global press, and estimation window is considered as -150 days from the occurrence of the event date. During the 72-day event window, six sub-event windows have recorded negative CARs. According to the results of this report, from day 0 to day 60 the cumulative average abnormal return (hereafter referred as CAAR) ranges between -0.85 % to -7.28 %, which is result of amplified stress in the financial markets caused by a rise in the counts of COVID-19 infected cases in BRIC nations. CAAR ranges between -7.28 % to -0.10 % from day 60 to day 72 suggests stock market recovery following a significant correction in the closing prices of indices among the selected nations due to COVID-19.

Keyword: Covid-19, BRIC Countries, Event Study, Stock Market, Pandemic, Indices

#### Introduction

In the literature, there are many observational bits of evidence regarding financial market reactions to important systematic events. Few latest researches analyse the effect of global incidents like the Severe acute respiratory syndrome (SARS) pandemic ailment epidemic (Chen et al., 2007, 2018; Loh, 2006), usual tragedies (Caporale et al., 2019; Tavor & Teitler-Regev, 2019; Wang & Kutan, 2013), national press (Li, 2018; Ormos & Vázsonyi, 2011), business actions (Maitra & Dey, 2012; Ranju & Mallikarjunappa, 2019; Seal & Matharu, 2018), and political activities (Beaulieu et al., 2006) on stock market.

Dean School Of ElC Sushant University

Sector 55, Gurugram

Efflatounia ISSN: 1110-8703 Pages: 303 – 315 Volume: 5 Issue 2

### Role of macro-economic factors in Stock Market Volatility: Evidence from India, Russia and South Africa.

Kanika Sachdeva<sup>1</sup>

Meenakshi Dhingra<sup>2\*</sup>

Naveen Nandal<sup>3</sup>

\*Corresponding Author

#### Abstract

The relevance of stock market across the globe has armoured the faith that finance has a crucial role towards the economic development. It is widely renowned that well-structured capital market enables the smooth flow of cash between the domestic and international market. However, there has been a turbulent rise and fall in the stock prices in past few years. This stock price volatility is one of the concerns that every market is facing, and this area has got lot of attention from many researchers and professional portfolio managers. The present research proposes to assess the impact of macroeconomic factors including interest rate, money supply, exchange rate, and inflation on the stock price volatility in India, South Africa and Russia. Time series data of Nifty 50 has been used to evaluate the role of macro-economic variables contributing towards the volatility. ADF (Augmented Dickey Fuller) test have be employed for testing the stationarity of data. Furthermore, Johansen co-integration test was employed for testing the integration among the selected variables and the results highlighted the absence of integration. The results of regression analysis concluded that interest rate and inflation are found to be most influential variables for the volatility in the stock markets across the three nations. The results of present study have numerous implications for the policy makers, traders of India, South Africa and Russia. Therefore, the current study proposes few suggestions for the policymakers and economists based on the results for assessing the volatility and hedging themselves against risk in the coming years.

Keywords: stock market, volatility, interest rate, macro-economic variables, exchange rate, inflation, money supply.

#### Introduction

Around the world, the significance of long-term capital in development process cannot be repudiated and one of the biggest sources of generating long term capital for the organisations is capital market. It is widely renowned that well-structured capital market enables the smooth flow of cash between the domestic and international market. Capital market offers a platform where shares of companies are issued and traded through exchanges. It provides a public platform for trading in the shares at an agreed price. An effective capital market, as per the EMH theory established by Fama (1970), is one in which stock prices adjust swiftly with the availability of latest knowledge (Maysami *et al.*, 2004). Numerous researchers have discovered a connection amid global economic changes and the macroeconomic variables. It is also well depicted through these studies that changes in stock market index are extremely responsive to shifts in the economy's fundamentals, as well as changes in expectations about

<sup>1</sup>Associate Professor, School of Business, Sushant University, Gurugram. Email: kanika.mba88@gmail.com. <sup>2</sup>Assistant Professor, School of Business, Sushant University, Gurugram. Email:

meenakshiphd2016@gmail.com.

Website: www.efflatounia.com

Dean School Of Long Sushant University Cootrig 55, Gurugram

<sup>&</sup>lt;sup>3</sup>Assistant Professor, School of Business, Sushant University, Gurugram

Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 7, Month 2021: 130-146

### Skill Gaps as a Stumbling Block to Economic Development: A Study of Trilateral Perspective

Ms. Shikha Agnihotri, Research Scholar, Amity University, Noida Dr. Puja Sareen, Associate Professor, Amity University, Noida Dr. P. Sivakumar, Director, I B Institute, Greater Noida Dr. Kanika Sachdeva, Associate Professor, Sushant University, Gurugram

### Abstract:

To explore one of the constraints to economic development, this study aims to identify skill gaps in management students on the basis of various employability skills. This paper also seeks to examine the difference in perception of student, faculty and HR professionals regarding employability skills. Having cross-sectional research design, this study focuses on trilateral perspective of three respondent groups on seven employability skills using a self-administered questionnaire with 34 items. Reliability and validity of the proposed scale was established with cronbach's alpha, convergent and discriminant validity. Descriptive and inferential statistics was used to analyze the data through Kruskal-Wallis test and DSCF (multi group analysis). The finding of this research shows a considerable difference in the perception of student, faculty and HR respondents. The study provides practical utility to student, faculty, HR recruiters, policy makers and career counselors. This is a comprehensive study having triangular approach with established psychometric properties of scale and multi group analysis for skill gap measurement.

Keywords: Skill gaps, Employability, Kruskal-Wallis test, Multi group analysis, Skill importance and Skill competence.

### Introduction:

Human capital of a nation is the base of its economic development and growth. As alarmed by the then president-Mr. Pranab Mukherjee, 'The Indian economy today needs to generate 115 million non-farm jobs over the next decade to gainfully employ its workforce and reap its demographic dividend'. This situation is called 'Great Indian Talent Conundrum' leading to 'Demographic disaster' instead of 'Reaping Demographic Dividend' (Venkatraman, 2017). Stating the early intervention of Harbinson (1973), Rastogi and Gaikwad (2017)in their study mentioned that 'Human resources constitute the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic, and political organizations, and carry forward national development. Clearly a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else'. Contribution of Indian millennial in economic development is significant. Post liberalization, Indian economy was barraged with

School Of E St. Cretion Cor Sushant University Dector 55, Gurugram

### EFFLATOUNIA - Multidisciplinary Journal

Register Login

MENU

Vol. 5 No. 2 (2021)

ARTICLES

# Empowering leadership and job performance: A study of Indian banks

PDF

Meenakshi Dhingra , Sandeep Kumar , Abas Mohammed Alter , Subhash C. Kundu

Dublished 2021-07-24

### Abstract

The current study purports to establish the linkage between empowering leadership behavior and employee job performance in the banking sector. To test the proposed hypotheses of the study, data have been taken from 168 participants working in various banks in India. Regression analysis showed positive relationship between empowering leadership and job performance. Three factors of empowering leadership, i.e. providing support, enhancing participation, and trust in employees are also positively and significantly related to employee job performance. No relationship has been found of gender, corporate work experience, age of the employee with job performance. The study extends several suggestions regarding leadership to Indian banks.

PDF

Quick Links Editorial Board Instruction for Authors Archives About Us

Privacy Statement Peer Review Policy

Announcements

Call for Papers

Paper submission Last date: 31st July 2021

**Review: 3** Weeks

Dean School Of Engy, & Change Sushant University Coatt: 55, Gurugram



### EFFLATOUNIA - Multidisciplinary Journal

Register Login

MENU

Vol. 5 No. 2 (2021)

ARTICLES

### Impact of work related motivation and stress on performance: A review

PDF

Meenakshi Dhingra , Samridhi Gupta

Published 2021-07-24 - Updated on 2021-07-24

### Versions

- 2021-07-24 (2)
- <u>2021-07-24 (1)</u>

### Abstract

Work related motivation and stress are the reaction that occurs in accordance to the working environment, sometimes from the work given or the reward given. They affect the performance in the organization. Work related stress can be said as a growing aspect in today's environment with many responsibilities and struggles to fulfill them. The motivation level of the employees can be termed as yet another beneficiary to the growth of an organization. In today's scenario both the aspects go hand in hand. With increasing motivation and decreasing stress the employee's find themselves more associated to the organization. The paper reviews the aspects of motivation and stress and how they can affect the performances of the employees. The concepts have been lately of a great interest with the researchers and the managers.

PDF

Quick Links Editorial Board Instruction for Authors Archites About Us

Dean School Of m Sushant University Ceat : 55, Gurugram



1-11-20

Privacy Statement Peer Review Policy

Announcements

Call for Papers

Paper submission Last date: 31st July. 2021

Efflatounia ISSN: 1110-8703 Pages: 316 - 328 Volume: 5 Issue 2

## A review on financial inclusion: A multidimensional concept

Meenakshi Dhingra<sup>1</sup>, Rohtash<sup>2</sup>\*, Monika Bisla<sup>3</sup> and Kavita Berwal<sup>4</sup>

\*Corresponding Author

#### Abstract

For the comprehensive development of the economy, financial inclusion assumes a significant role. It is assessed that all around the world over billion 2.5 individuals have been barred from admittance to financial inclusion out of which 33% individuals are Indians. The recent ways to deal with financial inclusion is following the UN activities that extensively portrayed billion the principle objectives of comprehensive account as admittance to the scope of financial services and products together with financial savings, credit, coverage, remittance and different banking / payment offerings to every 'bankable' families and companies at an inexpensive fee. The accessibility to financial offerings and products in country regions are critical for economic development because these services would empower the numerous rustic families to provide financial support towards their basic living expenses. The economic development is reliant on development of rustic market within the nation. Consequently more prominent monetary consideration in these portions is essential.

Keywords: Financial inclusion, bank penetration, access, usage, financial services.

### Introduction

In modern economic development finance is considered as a very powerful means of diffusing monetary opportunities and combating scarcity. Easy and broader admittance towards finance provides an elevation to the welfare status of both the final customers as well as the manufacturers. Finance provides enabling environment for the weaker section to optimally use their capabilities and provides various arenas to showcase the same. Financial instruments as a complex set of facilities such as savings, credit and insurance, defends from the unanticipated fluctuations. Based on the recent year's experiences, different nations highlighted that finance plays a very vital role in the overall journey of economic development. In the initial discussions, (Schumpeter, 1911) claimed that the role and functions performed by finance are indispensable for technological advancement and development of economy. Numerous studies observed that the financially weaker section of the society need monetary services to manage their livelihoods and lives which are very diversified, complex and feeble, and thus these people they expect their financial services to be more reliable, malleable, persistent and easy to handle (Morduch and Rutherford, 2003).

Assistant Professor, School of Business, Sushant University, Gurugram, Haryana (India). Email: meenakshiphd2016@gmail.com

Website: www.efflatounia.com

Dean Schoole 90 Sush universit Cootor 55, Gurugram

Research Scholar, HSB, Guru Jambheshwar University of Science and Technology, Hisar, Haryana. Email:rohtashbhall89@gmail.com.

Research Scholar, HSB, Guru Jambheshwar University of Science and Technology, Hisar, Haryana. Email:monikabisla08@gmail.com.

Research scholar HSB, Guru Jambheshwar University of Science and Technology, Hisar, Haryana. Email:kavitaberwal1111@gmail.com.

PSYCHOLOGY AND EDUCATION (2021) 58(5), ISSN 1553 - 6939 Article Received: 22th November, 2020; Article Revised: 26th March, 2021; Article Accepted: 26th

# Effect of teachers' emotional intelligence and personality on teaching effectiveness (Gender based)

Dr. Meenakshi Dhingra<sup>1\*</sup>

Samridhi Gupta<sup>2</sup>

\*Corresponding Author

### Abstract

The current study will aim at understanding the effects of personality and emotional intelligence on the teaching effectiveness of teachers in NCR. This quantitative study was conducted by collecting primary data using different tests developed by different researchers. As teachers play a very important role in nurturing the best to the world. Every country wants to attain the best of education system which shall not be possible without the presence of a teacher. There are many traits that affect the teaching of which personality and emotional intelligence are a part. They both characterize how a teacher would behave and get the best out of the students and in what manner. Both traits play their own differential roles in teaching effectiveness. However, we could observe that emotional intelligence amongst the teachers played a little dynamic role in the effectiveness of their teachings due to various factors.

Keywords: Personality, teaching effectiveness, emotional intelligence, teachers, teaching pedagogy.

www.psychologyandeducation.

Dean School Sushant Ocoto: 55, Gurugram

<sup>&</sup>lt;sup>1</sup>Assistant Professor, Sushant University, Gurugram, Haryana, Mobile: 8199922701, Email: meenakshidhingra@sushantuniversity.edu.in

<sup>&</sup>lt;sup>2</sup>Research Scholar, Sushant University, Gurugram, Haryana, Mobile: 9868875756, E-mail:samridhigupta.phd20@sushantuniversity.edu.in

Vol.11 No.2 (2020), 675-686 Research Article

### Factors Impacting the Usage of E-Wallets in National Capital Region

Meenakshi Dhingra<sup>1</sup>

Kanika Sachdeva<sup>2</sup>

Manisha Machan<sup>3</sup>

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

#### Abstract

There has been a noticeable spike in cashless transactions in recent years due to the advancements of financial technologies, new government initiatives and the nationwide unprecedented situation. Taking the mentioned circumstances into consideration, the current research is carried out to identify the various factors encouraging the people to use the e-wallets. Moreover, this research addresses the various purposes for which people use e-wallets and the major challenges they face while using the services of e-wallets. The primary data were collected from 285 respondents belonging to National Capital Region (NCR) of India. Out of the total respondents, 221 use e-wallets and 64 were non users. The collected data were analysed using multiple statistical tools including descriptive statistics, shapiro-wilk test of normality and Garrett rank analysis. The outcomes of the study highlighted that the facility of using e-wallets from anywhere is the most appealing reason for adopting the use of e-wallets and it is not at all treated as status symbol for the individuals, therefore status symbol has no role in determining the use of ewallet. It is also found that the e-wallets are most preferred for mobile recharge, however it is least preferred for toll payments and fuel charges. Moreover, the study has stressed upon the fact that the frauds that happen with most of the people is the key issue that the individuals have regarding usage of e-wallets. Furthermore, the analysis conducted on the 64 non-users of e-wallets highlighted that the main reasons for not using e-wallets were their habits of making cash payments and security concerns. The outcome of this study has multiple implications for the upliftment and enhancement of e-wallet services in India. Therefore, this study offers few suggestions based on the results for the development of e-wallet service providers in the coming years.

Keywords: e-wallet, digital payment, cashless, digitalization, national capital region, security concerns.

### Introduction

Digital technological innovations have transformed the process of buying and selling commodities in India. People are using these digital wallets to buy a candy as well as to transfer money from one account to other (Malik *et al.*, 2020). Digital India, an initiative of Government of India emphasis on making technology a core tool for financial transactions (Avitesh and Nagpal, 2017). E-commerce is one of the instance that has increasingly helped consumers migrate from buying directly in brick mortar stores to purchase from online stores. The buying patterns of customers has changed a lot with the evolution of e-commerce. Tella (2012) described e-payment as paperless mode of transactions. E-wallet is one of the form of electronic payment

<sup>1</sup> Assistant Professor, School of Business, Sushant University, Gurugram. Email: meenakshiphd2016@gmail.com.

<sup>&</sup>lt;sup>3</sup> Teaching Associate, School of Business, Sushant University, Gurugram. Email: manisha.machan87@gmail.com.



<sup>&</sup>lt;sup>2</sup> Associate Professor, School of Business, Sushant University, Gurugram. Email: kanika.mba88@gmail.com.

5013-24

Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 500 - 506 Received 24 October 2020; Accepted 15 December 2020

### Indian Response to Pandemic: A Journey from 1918 Pandemic to Covid-2019

Jagroop Singh<sup>1</sup>, Gunjan A Rana<sup>1</sup>, Kirti Mankotia<sup>1</sup>, Naveen Nandal<sup>1</sup>

<sup>1</sup>Sushant University, Gurugram (Haryana), India.

### Abstract

Uncertainty is always hard to predict and estimate. It is not only a challenge to individuals but to the businesses and the governments as well. Often we prepare ourselves to tackle these uncertainties and many times tackle the uncertain conditions with outside support. However, the most challenging situation arise when all have to be dealt at once. This is what has been experienced during Covid -19. If we search through the archival records, an event with similar spread and impact can be traced during 1918 pandemic, termed as Spanish flu. Although the Spanish flu and its impact are under reported, the lessons learnt from the pandemic Spanish Flu can guide us on a way to tackle Covid-19 in a better way.

Keywords: 1918 Pandemic; Covid-2019 ; Lockdown; Unlock.

### Introduction

On the Huanan seafood market in Wuhan, China, SARSCoV2 appears to have made the leap from animals to people. Attempts to identify probable intermediate hosts, on the other hand, appear to have been neglected in Wuhan, and the exact route of transmission must be determined as soon as possible(Nandal, Nandal, & Anuradha, 2020).

Covid-19 has put humankind in unprecedented situation. The world is facing public health crisis and economic downturn. The situation seems alarming for India due to its large population and limited medical facilities. Indeed, timely lockdown decision by Government of India has successfully reduced the fatality rate across nation under the prevailing conditions. However, relaxations given to revive the economy has increased the threat of community spread. This becomes evident from the active cases reaching 90,95,908 as on 22 November 2020. Government, researchers and practitioners are exploring every possible solution to rescue us from this "New normal" and take us back to the times of socializing and on the path of 5 trillion economies. However, the situation has constrained us to look into archival records for lessons to tackle this challenge. From the books of history, Spanish Flu in 1918 seems a relevant period/event to be explored. The virus is known as 'Spanish Flu' as only Spain (a neutral country in World War I) allowed its newspapers to public the national death toll.

http://annalsofrscb.ro



Dean School Of Sushant Ur Ocoto: 55, Gurugram

### International Journal of Modern Agriculture, Volume 10, No.1, 2021 ISSN: 2305 - 7246

### Perception of Online Learning Among College Students: A Systematic

NishaNandal, Research Scholar, Sushant University, Gurugram

Dr.Naveen Nandal, Assistant Professor, Sushant University, Gurugram\*

Ms. NeetuJora, Assistant Professor, Sushant University, Gurugram

### Abstract:

The epidemic of Covid 19 in the world affects most of the countries. The majority of countries are affected by a lack of social movement among the people. The economic factors of the population affected the worst. In India, the lockdown period whole economic factors are stumbled due to Closure of all economic Factors. The service sector mainly the Education system remained closed for a few Month. After the relaxation of the lockdown by the government, the education system has planned its teaching by transfer from the conventional system to digital learning that is online learning. But the Online learning has to Create a number of drawbacks in the outreach of education to the students. This paper has revealed the perception of the student among the online learning which the student has studied their online courses and attending their class.

Keywords: Covid 19, Conventional, Economic, Education, Online Learning.

### INTRODUCTION

The COVID 19 has disrupted the lifestyle of people all over the world. The pandemic has already, and rapidly, been catastrophic to the global economy(Nandal, Nandal, & Anuradha, 2020).Education is intended to make one's life more civilised, cultured, and democratic(Nandal, Nandal, & Kataria, A Secondary School Study Of Family Environment, 2021).The education in the world and also in India have changed their system of education to an online system due to pandemics of disease. The Online system called online learning is classes are conducted through the online mode using the internet. However, online learning is just one type of "distance learning" - the umbrella term for any learning that takes place across distance and not in a traditional classroom. Online education is the internet supported platform the teacher and student are interact using the various platform like Google meet, Zoom and go to a meeting. The teachers taking the classes on this platform to the student. Apart

ant Ur 55, Gurugran

### Investigating Digital Transactions in the Interest of a Sustainable Economy

Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram

Ms. NishaNandal, Research Scholar, Sushant University, Gurugram\*

Dr. KirtiMankotia, Assistant Professor, Sushant University, Gurugram

Ms. NeetuJora, Assistant Professor, Sushant University, Gurugram

\*Corresponding Author E mail: Nishanandal@yahoo.com

### **Abstract**

An automatic online operation that helps to transfer money between two entities is known as cashless transaction. Digital transactions are also known as cashless transactions as no paper formalities are required to complete a transaction. E-commerce, signing online contracts for business, buying online tickets for movies through smartphones comes under digital transactions. Transacting digitally has become easy, convenient and quick for people. Benefits of these cashless transactions are still ignored by many people because they still are not able to use these digital devices properly, or they are happy using cash for transactions. 200 consumers were surveyed using questionnaire.

### **Introduction**

Cashless economy is the economy which is not based on any form of physical money like notes and coins. In this kind of economy transactions are done on electronic channels like debit, credit cards, electronic clearances and system of payments in India like NEFT, RTGS, IMPS. In these kind of economy cash flow does not exist. Indian economy is now also pushing people to go for online cashless transactions and have launched UPI i.e. Unified Payment Interface. Various modes of cashless payments are mobile wallets, plastic money, net banking, etc. mobile phones now have virtual wallets known as mobile wallets. To make payments through online offline modes cash can be stored in mobiles. On mobile apps can be downloaded through which these wallets which are offered by service providers can be accessed. Net banking, debit, credit cards are used so that money can be transferred in the online wallets. Under plastic money comes cards like debit card, credit and prepaid. Banks later issue them physically or virtually. Net banking is used to recharge them and then to make purchase online they are used. Prepaid cards can be used to give someone as gift also so that they can make purchase of their own wish. Primary purpose of using these cards is money withdrawals from ATMs. Online payments and when shopping is done at merchant outlets these cards can be swiped for purchasing. Net banking is a type where

8 Technology School UNScol Sushant University Sector 55, Gurugram

Search	Q Log in Join
IS LOYALTY PROGRAM AS A MARKETING	<b>д</b>
D Pages 4 ⑦ Identified Q&As 1 ♀ Solutions available ③ Total views 63	
New York University • MKTG-UB • MKTG-UB MISC • sam2sam • 4/19/2021	
View full document	
View full document	

Q Search this document

#### **Journal of Critical Reviews**

ISSN-2394-5125

Vol 7, Issue 6, 2020 **Review Article** 

### IS LOYALTY PROGRAM AS A MARKETING TOOL EFFECTIVE?

### Ms. Nisha Nandal<sup>1</sup>, Dr. Naveen Nandal<sup>2</sup>, Dr. Ritika Malik<sup>3</sup>

<sup>1</sup>Research scholar. Ansal University, Gurugram <sup>2</sup>Assistant Professor, Ansal University, Gurugram <sup>3</sup>Management Consultant and Visiting Professor

Received: 15.02.2020

Revised: 14.03.2020

Accepted: 25.04.2020

#### Abstract

Loyalty programs are an ubiquitous instrument of customer relationship management. Complexity of modern business requires managers to strive for innovative strategies to acquire and retain customers in any product market field. As acquiring new customers is getting costlier day by day, business organizations have offered loyalty programmes to retain & reward existing customers and maintain relationships. One of the best ways to keep customers coming back for more is by establishing an effective loyalty or rewards program. Loyal customers, it is said, are worth striving for. They spread positive word-of mouth, reduce defection rates, and amplify the purchase frequency, to name just a few examples. But what can be done to induce that loyalty? Can loyalty schemes help us to do so? In this paper, we try to determine whether loyalty cards issued by stores have an impact on customer loyalty. The aim of this research is to enhance our understanding of loyalty program effectiveness.

Key Words: Loyalty, Complexity, program.

© 2019 by Advance Scientific Research. This is an open-access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/) DOI:

### INTRODUCTIOn rg/10.31838/jcr.07.06.188

A loyalty program is a promoting framework initiated by a business that rewards acquiring conduct accordingly expanding the client's inclination to remain faithful to the organization. A loyalty program may offer accommodation store credit prizes or some other advantage that would allure the faithfulness of a client. Customer engagement Organizations all through the country are presently using loyalty programs more regularly than any other time in recent memory. These associations comprehend the significance of holding existing clients and execute a framework coordinated particularly at building client loyalty. Of course, similar to all other showcasing endeavours an all-around created dependability program requires assets that may presently be assigned towards different attempts. Customer Loyalty programme - a very powerful strategy Which has been accepted and implemented by businesses big and small.

Harvana

#### **Benefits of Customer Loyalty Programme**

- Increase in Customer Retention,
- Increase in Customer Lifetime Value
- Improved client Relation .
- Improved company reputation .
- Great 'Customer Win back' strategy to bring back lost customers.



Vol.11 No.2 (2020), 755-763 Research Article

### **Employees' Struggles During Mergers and Acquisitions**

### Naveen Nandal<sup>1</sup>

Nisha Nandal<sup>1</sup>

<sup>1</sup> Assistant Professor, School of Business, Sushant University, Gurugram <sup>1</sup> Research Scholar, School of Business, Sushant University, Gurugram

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

#### Abstract

Merger and Acquisition is the most effective ways to accelerate the growth implementation plan of companies. All industries have been using M&A as an aggressive strategy for growth. Merger and acquisition in is not a new concept and burst in M&A has given further space to companies to look for integration for their growth, market coverage or any other strategic requirement. In today's globalized economy, competitiveness and competitive advantages have become the buzzwords, for corporate around the world. Corporate restructuring has gained considerable importance all over the world because of intense competition, globalization and technological changes and in this context mergers and acquisitions (M&A) are being increasingly used the world over, for improving competitiveness of companies through gaining greater market share, broadening the portfolio to reduce business risk, for entering new markets and geographies, and capitalizing on economies of scale etc. Mergers are important corporate strategy actions that, among other things, aid the firm in external growth and provide it competitive advantage. This area has spawned a vast amount of literature over the past half a century, especially in the developed economies of the world. India too has been seeing a growth in the number of mergers over the past one-and-a-half decades since economic liberalization and financial reforms were introduced in 1991.

Keywords- Merger & Acquisition, Stress, Emotional impact, HR, Culture, Communication

### Introduction

The decision to invest in a new asset would mean internal expansion for the firm. The new asset would generate returns raising the value of the corporation. Mergers offer an additional means of expansion, which is external, i.e. the productive operation is not within the corporation itself. For firms with limited investment opportunities, mergers can provide new areas for expansion. In addition to this benefit, the combination of two or more firms can offer several other advantages to each of the corporations such as operating economies, risk reduction and tax advantage. Today mergers, acquisitions and other types of strategic alliances are on the agenda of most industrial





Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3185-3191 http://ilkogretim-online.org doi: 10.17051/ilkonline.2020.03.735484

### An Empirical Study of Covid on Employment in India

Naveen Nandal Assistant Professor, Sushant University, Gurugram Nisha Nandal Research Scholar, Sushant University, Gurugram Meenakshi Dhingra Assistant Professor, Sushant University, Gurugram Kanika Sachdeva Associate Professor, Sushant University, Gurugram

### Abstract

Covid-19 has affected the employment sector all over the world including India. India was already going through a slow economic growth and that was even lowered by the pandemic situation of Covid-19. There is an increase in the level of unemployment and the people were going through huge financial crisis as they are forced to work with salary cuts, many of them have even lost their loss. This long standing economic recession at global and national level is leading the world towards unemployment, under employment and working poverty as well which is declining the population's income and the profit of the enterprises. A sample of 213 people from the different working sectors were surveyed to know the effect of Covid-19 in the employment in India and also how they are affected by Covid-19. Mean and t test was applied to get the appropriate results. The study concludes that there is a significant effect of Covid-19 on the employment sector of India.

KEYWORDS: Covid - 19, Employment, Unemployment, Economy, Lockdown, Recession, Job.

#### Introduction

In India, the occupational structure and the poverty is not that well equipped that it can go through the situation of self-isolation, social distancing, and lockdown during Covid19 pandemic. Investors fear the spread of the Coronavirus will destroy economic growth and government action may not be enough to stop the decline (Nandal, Nandal, & Anuradha, 2020) The employment in the organized and the unorganized sectors are experiencing a huge loss and it was predicted by ILO (International Labor Organization) that in India there will a job loss of almost 40 crores and it will be more than 200 crores all over the world. The economic condition of the country is so critical that it seems to be sinking with huge employment loss. The impact of Covid-19 is too disastrous that it has forced the migrant workers to rush back to their native places as they had lost their jobs and they do not have enough money for their food and shelter as well. The population of the migrant workers is so huge that they are contributing to unemployment graph of the nation to a great extent. They are out of their jobs, running out of food due to financial crisis and majority of them have no shelter as well. On the other hand, the extended lockdown situation has leaded the country towards great economic depression and scenario of massive unemployment where the population is facing job losses and salary cuts in the organized and unorganized sector both.

Not only in India there is a huge effect of Covid-19 pandemic on the employment all over the globe. People are suffering with huge financial crisis and phase of unemployment. In their study Coibion et al. (2020a) found that the United State is facing much severe situation of job loss and unemployment as it was thought to be by their governing bodies and this can be judged by analyzing the increase in unemployment insurance claims and it was expected that it gives the low coverage rate for unemployment insurance regimes in this country. They had also calculated the severe fall in the rate of labor participation for longer period of time that goes together with increase in workers that were discouraged as they had stopped searching for

### 3185 |

### An Empirical Study of Covid on Employment in India

Dean School Sushant 55 Gurugram

### International Journal of Management (IJM)

Volume 11, Issue 5, May 2020, pp. 838-845, Article ID: IJM\_11\_05\_076 Available online at http://www.iaeme.com/ijm/issues.asp?JType=IJM&VType=11&IType=5 Journal Impact Factor (2020): 10.1471 (Calculated by GISI) www.jifactor.com ISSN Print: 0976-6502 and ISSN Online: 0976-6510 DOI: 10.34218/IJM.11.5.2020.076

© IAEME Publication

Scopus Indexed

# **REVIEW ON INDIA'S BABY CARE MARKET**

### Nisha Nandal

Research Scholar. Ansal University, Gurugram, India

### Dr. Ritika Malik

Management Consultant and Visiting Professor, India

### Dr. Naveen Nandal

Assistant Professor, Ansal University, Gurugram, India \*Corresponding Author Email address:naveennandal22@yahoo.com

### ABSTRACT

Now a days market is more shopper oriented and all activities of business rotate around the Customers in order to satisfy them by fulfilling their needs via effective service. The quality products of baby are found to be expensive and companies are always looking to develop the most cutting edge products. The main concern of the parents is to have best products for their child in order to keep safe and sound. Parents just not but the product easily by believing on the advertisement, they do research on the Internet by viewing product websites, consumer reports, blogs etc. and then make a decision, but the one which suits him the best. Increasing level of income, availability of better products and rising awareness have meaningfully altered the child care products industry landscape. In field of baby care product, India is found to be most preferred destination for marketers and manufacturers.

Key words: Baby Market, Health & Safety, Product, Quality, Child Care.

Cite this Article: Nisha Nandal, Dr. Ritika Malik and Dr. Naveen Nandal, Review on India's Baby Care Market. International Journal of Management, 11 (5), 2020, pp. 838-845.

http://www.iaeme.com/IJM/issues.asp?JType=IJM&VType=11&IType=5

### **1. INTRODUCTION**

The segment which is rising at a fast pace in India is Baby care market. The usage & amount of child care products has almost double in India in last few years. The factors which are nurturing the progress of the segment are vast population of India, increasing birth rate & literacy rate, enhanced purchasing power and urbanisation of the rural population. Parents now a day no more get appealed by the fancy advertisement, they make their purchasing decisions after investigating on Internet, taking reference from friends and reading customer reviews etc. New parents are also tremendously concerned about their child's safety. It is very

http://www.iaeme.com/IJM/index.asp



Dean School Of Su editor@iteme.com Gurugram

### The Role of Organizational Citizenship Behavior on Employee Engagement and Organizational Effectiveness

### Dr. Naveen Nandal,

Assistant Professor, Sushant University, Gurugram

### Nisha Nandal,

### Research Scholar, Sushant University, Gurugram\*

#### ABSTRACT

We may simply accomplish and support the effectiveness of the company by boosting employee participation without sacrificing job capability. The connection between employee engagement, OCB, and organizational success may be examined using OCB literature. According to an ex post facto survey, there is a correlation between OCB, employee engagement, and organizational success. The combined evaluation looks at the segments that establish informal OCB-employee connections, as well as organizational success. We can see that in order to enhance effectiveness, a high degree of OCB is required, which is made possible by the prospects of engaged personnel. The only way to assess effectiveness is to have a high degree of employee engagement through HR's function. It is much easier to achieve organizational success when employees have a pleasant and positive work environment. The idea of OCB plays a significant part in effectiveness, and it is seen as a good precursor to performance and effectiveness. This study focuses on workers that are occupied with their jobs and have characteristics that help to establish a pleasant work environment, which leads to organizational effectiveness.

Key Words: Employees, Employee Engagement, Organizational Effectiveness, Citizenship Behaviour, Organization, Organizational Citizenship Behavior.

### **INTRODUCTION**

The most effective way to boost organizational effectiveness is to boost efficiency and encourage employees to work at their best even when things aren't going well. The organization keeps a close watch on how committed and attached a person is to their work, which is critical for the organization's performance. It has been established that a company desires a high degree of employee participation in their job. As a result, a company will always put out considerable effort in order to achieve effectiveness. Employee engagement, which is acknowledged by leaders and managers throughout the world, is the most essential component that has a significant impact on organizational success (Wetch, 2011). During the work objective and plan of organization, engagement comprises the dynamic employment of psychic, syllogistic, and conduct energy (Andrew& Sofian 2011). Only through the joint efforts of engaged workers can a company attain success and effectiveness (Bakker 2011). It has been determined that OCB gathers just those behaviors that are necessary for the smooth operation of social machinery and to build an intellectual framework that is generally regarded as censorious and beneficial (Wei at al, 2010). There is a need to improve the present notion of a friendly relationship between precursor and OCB outcomes. We can see

Website: www.efflatounia.com

Dean Low School Of Sushant Universi Colt :: 55, Gurugram

European Economic Letters ISSN 2323-5233 Vol 13, Issue 1 (2023) http://eelet.org.uk

### A Product Innovation Measure for Indian Automobile Industry: Scale Development and Validation

### <sup>1</sup>Ms. Nisha Nandal, <sup>2</sup>Dr. Atul Kumar Agarwal, <sup>3</sup>Dr. Naveen Nandal

<sup>1</sup>Research Scholar, Sushant University <sup>2</sup>Professor, Sushant University <sup>3</sup>Assistant Professor, Sushant University

#### Abstract

The main agenda behind this research is to develop an empirically validated scale so that it is easier to measure the perception of personal vehicle users in respect of product innovation they are seeking in Indian Automobile Industry. Design/methodology/approach: A 36 item questionnaire on product innovation in Automobile Industry was developed and tested for reliability and validity using both exploratory and confirmatory factor analyses. SPSS 19 and AMOS 20 were used for exploratory and confirmatory factor analysis. The data was collected from personal vehicle users of the selected brands in Delhi NCR. Findings: The study identified eight factors namely Product uniqueness, Product design, Autonomy, Novelty, Product newness, Technology, Green product & Continuous updating as the key dimensions of product innovation in Indian Automobile industry. Originality/value: This scale can be a great help for the industry to set up new benchmarks in the product innovation from a user's perspective, focussing more on innovating, and framing policies & practices regarding product innovation. Since different dimensions have been found in this research each dimension can be taken as yardstick for the overall enhancement in the quality of Automobile sector.

#### Introduction

In the post liberalization period, automobile industry has grown faster than any other industry in India which results in the rising of middle class income and increased demand of personalized vehicles. Automobile industry played significant role in maintain the India's economy. Because of the reforms and the presence of Indian producers like assemblers and component manufactures into the global value chain , the inflow of FDI and equity participation by foreign firm become possible in this segment. The reason for the huge sale of automobile is the swelling of middle class. There are two reasons why there is increase in sale, first the path for the growth combines the increasing per capita income and inequality and secondly, oligopolies control the imperfect nature of market.

One of the important factor for the strong growth of economy is the increasing purchasing power of the Indian middle class over a past few years and major auto manufacturers have attracted to Indian market. There are many factors responsible for the attraction towards the Indian domestic market for instance existence of trained manpower, exchange rate linked by the market. On one hand, there is a growth of Indian market and on the other hand, weakening of auto sector market in EU, USA and Japan which become responsible for the flow of capital to the auto industry. The most significant highlight of Indian manufacturing sector is resulted in the various choices of Indian consumers and productivity level get increased by almost 20 percent (IBEF, 2018).

It is the year of 1898 when first car seen on the Indian roads(Sarwade, 2015). Since 1898, the Indian automobile industry has been progressing as a result it reached to its present status. By production wise, it revealed outstanding performance and wrote a new history in the production of automobiles. It progressed rapidly and has been progressing since 1898 and got strength. There is 7.1% share of automobile industry in India's Gross Domestic Product(Philip & V, 2020). Cars and others products of automobile industry of India were rolling on the roads of the other nations. With the annual production of over 3.9 million units, India is considered as the second largest and the fastest growing industry after the nation named as China(Kanupriya & Kumar, 2018). The production of cars of India is faster than China. This is how we can observe that Indian automobile industry progressed rapidly than other nations. In this competition, the nation like US is counted after India in the sector automobile. We can see the laborious work of our nation towards this sector, numerous steps were taken to hold good position and got second rank after China. This Indian automobile industry played significant role in the Gross Domestic Product. Cars manufactured by India is considered as best cars which have been rolling on the roads of the other nations. India got the sixth rank in the passenger cars and commercial vehicle in the world bit the best this is there is a great improvement in the export sector.

The automobile industry in India is world's 4th largest manufacturer of cars and 7th largest manufacturer of commercial vehicles in 2017. Indian automotive industry (including component manufacturing) is superted to reach 16.16-18.18

Dean 152 School Of Sushant Universit

P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2021.27.01.344

### Correlation Between Resilience and Academic Achievement of Higher Secondary Scheduled Caste Students

### Dr. Naveen Nandal

Assistant Professor, Sushant University, Gurugram

### Nisha Nandal

Research Scholar, Sushant University, Gurugram\*

### Dr.Milind,

Professor & Dean, Sushant University, Gurugram

**Abstract:** The study aims to find out the correlation between resilience and academic achievement of higher secondary scheduled caste students. The sample selected for the Present study consists of 652 higher secondary scheduled caste students studying in government, government-aided and private schools from Rohtak, Hissar and Sonipat districts of Haryana, India, the survey method used in the study in simple random sampling. For measuring, tool used the Resilience Scale in the year 2018 developed by investigator and the percentage of marks scored in their annual examination has been taken for the study. The data consists the background variables gender, major subject, type, nature and locality of the school, father's and mother's education, father's and mother's occupation and monthly income of the family for the calculation. The data collected is analyzed using 't' test and Pearson product moment co-efficient statistical techniques. The finding shows that i) there is significant difference in stability and resilience of higher secondary scheduled caste students with reference due to their gender. ii) there is significant relationship between the dimensions of resilience and gender of higher secondary scheduled caste students and iii) there is no significant positive correlation between resilience and academic achievement of higher secondary scheduled caste students.

Keywords: Resilience of Scheduled Caste Students, Annual Achievement Score.

\*Corresponding Author E mail: Nishanandal@yahoo.com

### INTRODUCTION

Resilience refers to the capacity of human beings to survive and thrive in the face of adversity. It refers to the capacity that some young adults have to overcome difficult circumstances and go on to lead healthy, successful lives. It also involves being able to recover from difficulties or change to function as well as before and then move forward many refer to this as "bouncing back" from difficulties or challenges. It consists of a cluster of personality characteristics which implies a positive outlook on life and about self, flexibility in thoughts and in social relations, focused,

School Of C Sushant U



# A Secondary School Study Of Family Environment

Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram NishaNandal, Research Scholar, Sushant University, Gurugram\* Dr.AarushiKataria, Assistant Professor, BVIMR, Delhi \*Corresponding Author E mail: Nishanandal@yahoo.com

### ABSTRACT

Training is a phenomenon that has existed since the dawn of time. From cradle to grave, education is a never-ending operation. Education is intended to make one's life more civilised, cultured, and democratic. It prepares a person to successfully face all challenges in various aspects of life, as well as to live a peaceful and well-adjusted life.

KEYWORDS: Education, Problems, Environment, Adjustment.

### **INTRODUCTION**

Man has a unique ability to be conscious of himself and to comprehend himself. He also has the distinct advantage of being a member of a formal society. Both of these circumstances raise concerns about interpersonal relationships. There are concerns about man's psychological well-being. Originally, the idea of change was biological, and it was concerned with survival adaptation to the physical world. Of course, a person's physical environment is a top priority, but he still has to deal with the social stresses and demands of socialisation that come with living in close quarters with others. There are also demands from a person's internal nature; physiological needs such as hunger, thirst, sleep, sex, elimination, and psychological needs such as need for belongingness, need for self-esteem, need for self-actualisation, need for acceptance and social approval, and need for freedom have an effect on a person's functioning and adjustment. The adjustment process is

complicated because a person's relationship with one demand can interfere with another's requirement. Conflicts pose unique challenges in terms of transition, as satisfying one need while neglecting others cannot provide complete fulfilment. Failure to satisfy a strong need or respond to a strong external demand, on the other hand, could result in painful stress. These tensions can wreak havoc on one's psychological well-being, cause physical symptoms, and lead to erratic behaviour.Professionals today look for alternatives to manage the expectation from both work and life (Mankotia & Jai, 2019)

### ADJUSTMENT

### **DEFINITIONS OF ADJUSTMENT**

"What is adjustment?" is the first thing that comes to mind as we think about it. The word "adjustment" literally means "arrangement" or "settlement." This means that someone who can arrange or settle himself in a new setting is well adjusted.

www.psychologyandeduca on.ne dol of Business Ansal University Sector-55. non Haryana

### "IMPACT OF PRODUCT INNOVATION ON THE FINANCIAL **PERFORMANCE OF THE SELECTED ORGANIZATIONS: A STUDY IN INDIAN CONTEXT**"

#### Dr. Naveen Nandal,

Assistant Professor, Sushant University, Gurugram

### Dr. Aarushi Kataria,

Assistant Professor, Bharati Vidyapeeth University, New Delhi

#### Nisha Nandal,

Research Scholar, Ansal University, Gurugram

#### Ms. Neetu Jora,

Assistant Professor, Sushant University, Gurugram

#### **ABSTRACT:**

The purpose of this research is to analyze the determinants of product innovation and its impact on the financial performance of the organizations. Specifically, the study examines the impact of intelligence generation, intelligence dissemination, productprocess innovation, marketing support of the product, quality, Dependability/ Delivery, Technology selection, Flexibility on the financial performance of the automobile companies. The models of product innovation provided the theoretical framework for the research. The model of product-process innovation provides the basis for further research. The first concept explains the link between organizations surroundings and its innovation targets (Utterback JM 1974, 1975) (Miller & Friesen, 1982)(Milling, 1996) whereas the second concept explains the connection between firm's performance level i.e. innovative performance, financial performance, organizational performance and marketing performance and its innovation types i.e. product innovation, process innovation, organizational innovation and marketing innovation (Abernathy & Townseed, 1975) (Abernathy & Utterback, June/July 1978) (Gunday, et al., 2011). From these concepts evolved this study i.e. to evaluate the impact of product innovation on the financial performance of the organizations.

Article Received: 18 October 2020, Revised: 3 November 2020, Accepted: 24 December 2020

### **INTRODUCTION**

During modern decades increasing ecological concerns have become a well-built encouragement to creative thinking. Ecological system will exert huge weight on production industries, which will augment in the upcoming time, enabling a more surviving globe for coming generation. The automobile industry is one of several industries causing ecological pollution where cars have a important impact on all stages of the life cycle; manufacturing, use, reusing and dumping (Orsato and Wells, 2007). This business also continues to cultivate. The number of cars in worldwide use will amplify in close future, mainly due to growing command in budding countries. As an instance, the amount of cars sold in China has

www.psychologyandeducation.netchool Of

Dean

Sushent Ui

outs.

hoology

enlarged by over 25% per annum in the past ten years, building China the world's biggest car marketplace. In 2012, the international car fleet conceded the one billion score. As a result of the increasing car market, the automotive industry records for 27% of CO2 releases in the world (WWF, 2013). Automakers have also shown an escalating awareness of the ecological impact of their products as environmental rules and market demands for ecologically less disparaging cars have augmented. The centre on reducing CO2 has become a well-built driver in the growth of not only less ecologically vicious cars, such as Electric Vehicles (EV) and Hybrid Electric Vehicles (HEV), but also of mass-reduction way-



https://cibg.org.au/

P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2021.27.01.343

### A Study on Corporate Demand from Business Management Graduates

Dr. Naveen Nandal Assistant Professor, Sushant University, Gurugram Nisha Nandal Research Scholar, Sushant University, Gurugram\* Dr.Milind, Professor & Dean, Sushant University, Gurugram

Abstract: This study was an attempt to understand the key reasons why management graduate students are failing in getting the better placements. From the last five years the placements of the management graduates has drastically reduced and some of the research studies has shown that the decline in the placements of the some of the tier two b-schools are just because of the reasons that they are not able to meet the requirement of the corporates so this study is an attempt to understand the various skills sets demanded by the industry and what are the keys skills that the students has to be trained in the colleges to make them corporate ready. This study was conducted with the help of the research questionnaire which helped in collecting the data from 697 students and 92 recruiters of the various companies who visits the business schools for the campus recruitment. The study was significant to understand the key skills demanded by the industy.

**Keywords:** Management, Companies, Recruiters, Skills, Placements \*Corresponding Author E mail: Nishanandal@yahoo.com

### **INTRODUCTION:**

In the recent economic conditions all over the globe- "Management" as a field of education and course has acquired new different dimensions. Management is an emerging and the exciting field which is having a greater impact on the business operations and functions of management of various corporates. The field of Management and management is truly dynamic in nature. New method and models are regularly being introduced into the management education in order to improve the efficiency, quality, productivity as well as the effectiveness of any organization. Higher education is in recognized as a fastest growing service industry and, as such, is placing greater emphasis on meeting the needs and expectations of its participating customers, that is, the students(Nandal & Nandal, 2019). All the corporate houses and their departments does use the Management techniques, methodologies to resolve the various problems that might arise in the business and also to make the strategies for the offensive

Dean School of 512 Stubers, Sushant Unive

Register Login

# International Journal of Advanced Science and Technology

Home	Editorial Board	Journal Topics	Archives	About the Journal	Submissions
		Privacy Stat	tement Co	ontact	
				Search	

Home / Archives / Vol. 29 No. 4s (2020): Vol 29 No 4s (2020) (Special Issue) / Articles

# Women Social Entrepreneurs: A growing trend in Indian Economy

Nisha Nandal,Dr. Naveen Nandal,Dr Aarushi

### Abstract

As compared to the earlier times where women work is limited to their household activities only, now

women have been recognized as playing a critical role in the society, acting as a change agent & innovators. but still because of their lower status & mentality of the society, their entrepreneurial ability

& talent is not properly tapped. If tapped properly by providing equal opportunities & status, the country will be on another level. Social entrepreneurship is a great combination of Social Service and Entrepreneurship. Social Entrepreneurs have more responsibility towards well-being of Society rather

than earning profits. The main aim of this paper is to find out the status of Women social Entrepreneur

in India, challenges faced by women social entrepreneurs and strategic measures recommended

School Sushant Universit

Cliff 755, Gurugram

PDF

### How to Cite

Nisha Nandal,Dr. Naveen Nandal,Dr Aarushi. (2020). Women Social Entrepreneurs: A growing trend in Indian Economy. International Journal of Advanced Science and Technology, 29(4s), 2246 - 2253. Retrieved from http://sersc.org/journals/index.php/IJAST/article/view/8429



### Employee Job satisfaction of the IT Sector in Delhi-NCR- During Pandemic

NishaNandal, Research Scholar, Sushant University, Gurugram

Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram

Dr.Milind, Professor & Dean, Sushant University, Gurugram

### Abstract

Due to lockdown, ensuring employee satisfaction has become one of the most important priorities for human resource managers and professionals in companies during the COVID19 pandemic. During this difficult time, organisations are actively developing new and effective ways to engage and satisfy their workers. The Information Technology sector is critical to a country's economic growth. Employee work satisfaction is key to a company's growth. It is a crucial component of any organisation. Job satisfaction is one of the important factors that has attracted the attention of both managers and academics. Various studies have been conducted to assess work satisfaction, but few studies have been conducted to assess employee satisfaction during pandemics. Employee job satisfaction is an important factor in achieving and maintaining desired productivity goals. Prior to the pandemic, virtual work was not a common option for all organisations, but it has now become a modern and unparalleled norm in several ways.

#### Introduction

Pandemic is one of the terms that described 2020; it simply means "affecting all." Coronavirus has changed our lives in every way. The planet in the year 2020 is uncharted territory. Each of us will recall how the world changed and life came to a halt in all corners of the globe during these extraordinary times. The final seconds of 2019 were ushered in on December 31, 2019, with a lot of optimism and expectations about how the coming year will be better than the previous one. Nobody could have predicted that a global pandemic would derail all of their hopes and dreams.No one knew how long the novel coronavirus would survive or how lethal its effects would be when it arrived on the world's doorstep. Several countries around the world have been affected by the virus because of its infectious existence.

The pandemic created an extraordinary situation that dramatically altered our fast-paced and mundane lives. With so many restrictions in place to combat the virus, gatherings of a large number of people were discouraged as well. It would be an understatement to conclude that the novel coronavirus (COVID-19) pandemic has changed the world. The virus has upended people's lives all over the world in less than a year since it first appeared — and just over 6 months since monitoring started in the United States.

The pandemic has changed how we live, learn, and communicate, as social distancing guidelines have led to a more virtual life, both personally and professionally. Containing the spread of coronavirus disease 2019 (COVID19) has been an international priority since the World Health Organization declared the outbreak a pandemic on March 11, 2020. (Huang et al., 2020; Paules, Marston, & Fauci, 2020; Wang, Wang, et al., 2020) Organizations are being

www.psychologyandeducation.net

Dean School 6 Sushant Universit, Cost 1:55, Gurugram



Abstract:

March – April 2020 ISSN: 0193-4120 Page No. 9478 - 9484

## Green Marketing in India

Nisha Nandal, Research scholar. Ansal University, Gurugram Dr. Naveen Nandal, Assistant Professor, Ansal University, Gurugram Dr. Ritika malik, Assistant Professor, BVIMR, New Delhi

Article Info Volume 83 Page Number: 9478 - 9484 Publication Issue: March - April 2020

Article History ArticleReceived: 24 July 2019 Revised: 12 September 2019 Accepted: 15 February 2020 Publication: 11 April 2020

#### **INTRODUCTION: -**

Green Marketing is the marketing of those products & services which are environmentally friendly. 'In involves making changes in product, changes in the process of production, changing packaging and modifying advertising'. Greenhouse Gas, Emission of Pollutants & Global Warming is the central problem which everyone is facing today, the awareness level of same is increasing and leads the marketers to brand and rebrands their products towards their global problem. Green Marketing affects all aspects of Economy, it not just protect the environment but also create new market and job opportunities. "The American Marketing Association (AMA) defines Green Marketing as the marketing of products that are presumed to be environmentally safe".

## The American Marketing Association (AMA) definition

(Retailing definition) Green marketing means marketing of those products that are presumed to be environmentally safe.

(Social Marketing definition) The marketing development of those products which are designed

As we all know that pollution level is increasing day by day and there is a need to take some action against it. Now a day's consumer are also aware about the Environment condition & want to buy those products which are less harmful to the society and also want to connect with the Organization using Green Marketing. This results in a trend of green marketing used by the Companies as one of the strategies implemented to gain profit and protect the environment. Green marketing is used for environment friendly products that are considered to be green like low power consuming electrical appliances, organic foods, lead free paints, recyclable paper, and phosphate free detergents. This paper helps us in imparting knowledge about the Effects of Green Marketing on Consumer behaviour & Satisfaction and Environmental safety, its impact in Textile and Automobile industry.

to minimize negative effects on the environment or to improve its quality.

(Environmental definition) The efforts taken by the Organizations to produce, package, promote and reclaim products in a manner that is responsive to ecological concerns.

#### **Evolution of Green Marketing**

Green marketing is the term that was first discussed in a seminar on "Ecological Marketing" organized by American Marketing Association (AMA) in 1975 and took its place in marketing terminology.

According to Peattie (2001), the evolution of green marketing has three phases. First Phase was termed as "**Ecological**" Green Marketing. In this period all the marketing activities were concerned to help environmental problems and to provide remedies to those problems.

Second Phase was "Environmental" Green Marketing. The focus was shifted to clean technology that involves the designing of innovative products that take care of pollution and waste issues.

Third phase was "Sustainable" Green Marketing. It came into existence in late 1990 and early 2000. It was concerned with developing the products

Published by: The Mattingly Publishing Co., Inc

## **SBIAD**

The Relationship **Between Efficacy** And Work Family **Conflict- A Study** Among Doctor Is **From Private** Hospitals In Delhi Ncr

Dergi: İlköğretim Online

Kirti Mankotia Yazar: Naveen Nandal Gunjan, A. Rana Jyoti Ahluwalia

10.17051/ilkonline.2020.03.735479 0 DOI:

#### 🖹 Özet:

å

Professionals today look for alternatives to manage the expectation from both work and life. The pressure to retain jobs for a decent livelihood means long hours heavy work load and extended work weekends. Add to this the family demands of dependent supervision and care, household chores and want for family leisure time and self-care leads to a very natural and invincible overlap between the two cores of work and life often leading conflicting to



### International Journal of Management (IJM)

Volume 11, Issue 7, July 2020, pp. 358-370, Article ID: IJM\_11\_07\_035 Available online at http://www.iaeme.com/IJM/issues.asp?JType=IJM&VType=11&IType=7 ISSN Print: 0976-6502 and ISSN Online: 0976-6510 DOI: 10.34218/IJM.11.7.2020.035

© IAEME Publication Scopus Indexed

## ANALYSIS OF DIGITAL WALLETS FOR SUSTAINABILITY: A COMPARATIVE ANALYSIS BETWEEN RETAILERS AND CUSTOMERS

#### Dr. Ritika Malik

Management Consultant and Faculty, Bharti Vidhyapeeth Institute of Management and Research, Paschim Vihar, New Delhi, Affiliated to Bharti Vidhyapeeth Deemed University, New Delhi, India

#### Dr. Aarushi Kataria

Assistant Professor, Bharati Vidyapeeth University, New Delhi, India

#### Dr. Naveen Nandal\*

Assistant Professor, Ansal University, Gurugram, India \*Corresponding Author E mail: Naveennandal22@ansaluniversity.edu.in

#### ABSTRACT

Digitalization has made a new but substantial entry in the Indian market; which was considered to be unorganized and traditional in many aspects. Over the years, due to better networks, stakeholder's acceptance and Government initiative, there is a new framework is evolving for digital payments under organized wallets backed by up Government as well as private players. No denying fact that due to this intervention, various linkages to the sustainability is arising, which is the utmost need in the Indian context. In this paper 100 consumers (50 Digital Wallet users and 50 Non Digital wallet users) and 50 retailers (25 Digital Wallet Acceptor and 25 Non 25 Digital Wallet Acceptor) will be surveyed using a structure questionnaire. Using SPSS, their responses were analyzed and a model will be proposed in order to establish and determine the various interlinking's among the digitalization, wallets and sustainability in Indian context using Mann Whitney U Test and Kruskal-Wallis test (H test). This paper has implication for future digital marketing strategists, policy makers and research enthusiasts of the similar area. This paper will be a convergence of digitalization and sustainability in Indian context.

Key words: Digital wallet, Digitalization, Consumers, Government, Retailers



Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 625 - 635 Received 24 October 2020; Accepted 15 December 2020

## Impact of Employee's Performance during COVID-19

Mrs. Anushka Shokeen, Research scholar association of Sushant University Dr. Naveen Nandal, Assistant Professor association of Sushant University

#### ABSTRACT

The main focus of this research paper is on how COVID-19 has influenced people's lifestyles, working habits, job satisfaction, employee efficiency, and behavior. Leadership is a leader's method of persuading subordinates with specific traits to achieve the desired goals. Any organization's success is dependent on its ability to lead. The leadership tactics employed in establishing conditions that allow the people they lead to become aware of the necessity to carry out their aims is one of the aspects that determine a leader's effectiveness. In other words, a leader's performance is determined by his ability to manage and apply his leadership style in light of the events and conditions of the company. During COVID-19, the most significant effect was on employee performance. The needs of the organization must be satisfied by leaders. It also affects the employee's day-to-day life, which must be cooperative with the job. Employee roles are critical in the workplace because they must adapt to the attitudes of managers and leaders during this pandemic period. However, in order to receive an appraisal or other reward from the company, employees must be perfect in their behavior and how they do their jobs.

Keywords: COVID-19, Employee's Performance, Job Satisfaction, Employee's Behaviour, Leadership.

#### **INTRODUCTION**

The COVID-19 pandemic in India is part of the global coronavirus disease pandemic of 2019 (COVID-19), which is caused by coronavirus 2 that causes extreme acute respiratory syndrome (SARS-CoV-2). On December 31, 2019, Chinese authorities informed the World Health Organization (WHO) about an outbreak of an unknown respiratory disease. On January 30, 2020, the WHO declared the outbreak of COVID-19 as a public health emergency of international concern. Cases extended quickly from the city of Wuhan to other parts of China and, since then, to the whole world (World Health Organization, 2020a). Since December 31, 2019, when the first case was reported to the WHO by Chinese authorities, close to 30 million cases have been confirmed in 216 countries, with more than 930,000 deaths (World Health Organization, 2020b).

At the start of 2020, it seemed as if the planet had been hit by a new disease. Nobody knows what the Covid-19 is or how it got here. It appears that a dark box has returned from the depths of history. Beyond medicine, epidemiology, and economics, psychological principles, like leadership, are critical to resolving this grave danger (Kniffin et al., 2020). How does this situation impact people's everyday lives, such as wearing masks and bringing a sanitizer bottle with them? It makes significant changes in the stock market, economics, financial instability, the atmosphere, education, food retailing, investment banking, and many other areas where unforeseen situations may arise in the future. It results in significant changes in organizational behavior, holiday entitlement, welfare, educational methods, and so forth.

http://annalsofrscb.roushontUniversity

Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 436 - 441 Received 24 October 2020; Accepted 15 December 2020

## Handloom Industry-A Study on Impact of International Marketing **Strategy for Customer Retention**

## Rasmi Aravindan<sup>1</sup> and Dr. Naveen Nandal<sup>2</sup>

1. Research Scholar, Department of Management, Sushant University 2. Faculty, Department of Management, Sushant University

#### Abstract

Handloom enterprise is the biggest handicraft enterprise in India. It's miles the second one biggest source of rural employment after agriculture. Handlooms, a traditional wear in India has lost its significance slowly with the appearance of low and alluring synthetic fabric. Make in India campaign is taking an initiative to sell handloom industry in domestic and international degree. America, UK, Germany and France are some of the pinnacle ten countries to in which the Indian handloom merchandise exported. The Indian authorities launched handloom emblem to ensure its distinctiveness, flexibility of manufacturing, openness to innovations, adaptability. The industry is a high labor and coffee capital intensive and sustainable in nature. Studies displaying that this enterprise affords over 6.5 million employments directly and indirectly. There are quite a few papers, journals, websites and articles are posted and reviewed to understand the applicable records and describing the records, development and scope of the enterprise in global market Keywords: Customer Retention, Handloom industry, weavers, Marketing Strategies, Exports

#### Introduction

The sector is an assembly factor of various cultures, traditions and most significantly people. While coming to style or apparel shifting from one Country to other country, the shade layout and tastes are extraordinary and there are new rules and customs to examine. It's miles the most vital element that is required to product sustainability in an aggressive marketplace (alveary, 2007). Client retention is the pastime that a vendor undertakes to reduce client defections. It's far all about attracting the proper patron, getting them to buy often and in better portions and to deliver you even extra clients. Customer retention may be the reflect photograph of consumer defection. Consumer retention, without a doubt described, is the potential for a business enterprise to hold its present clients. The truth is that the clothing / style is difficult and maximum aggressive marketplace, however the frequency of buying is higher than another product. Our extensive goal is to find out the barriers and problems of the handloom industry to reach in global clients and to hold the home clients. Customers will have precise expectations from handloom industry. These expectancies must usually be happy by means of the handlooms (For & Effectiveness, n.d.).

http://annalsofrscb.ro

Dean-Sushant School of Business Ansal/University Sector-55, Gurgaon Haryana

436

Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 606 - 615 Received 24 October 2020; Accepted 15 December 2020

## 498A IPC- A Shield to Protect Women or a Weapon to Harass Men

Bhupinder<sup>1</sup>, Research Scholar, Sushant University, Gurugram Dr. Naveen Nandal<sup>2</sup>, Assistant Professor, Sushant University, Gurugram

#### ABSTRACT

"YatraNaryastuPujyante, RamanteTatraDevata" is a very famous saying in Sanskrit. The meaning of which is "God live in places, where women are worshipped and divinity blossoms there". A woman is considered as "Ardhangini" in the Hindu marriage, which is a sacred institution. Wife is one half and husband is another half. These two halves make an eternal being completed. In ancient times a woman was given significant and equal status as of a man. However, in some period of time the position of woman has been changed. Even history shows that a husband plays a superior role than that of a wife as he is considered as the "Karta" of the house. Gradually the situation has become worse and women is subjected to various atrocities. The demon of Dowry is one of them. Wife is seen as a means to get wealth and in case those unlawful demands are not fulfilled; violence is done with her. Sometimes it reaches to such a brutal level that she finds no way other than committing suicide. It became the need of the hour to make some laws to prevent such kind of inhumanity against woman. Thus, Dowry Prohibition Act and in addition an amendment has been introduced in IPC in the form of section 498A in 1983. The purpose was clearly to prevent the evil of cruelty against women. But a shield which was provided to protect women against the violence done to her by her husband and in-laws, has been converted into a weapon to be used by woman against her husband and in-laws. The issue exists on both sides, one is that the women who are unaware about their rights are unable to use section 498A to safeguard their rights and the other is that the women who are much aware and have mala-fide intentions, they misuse this section to harm the husband and his family to settle her personal scores against them. This paper aims at finding some useful suggestions so that the purpose with which section 498A was inserted can be fulfilled.

#### **INTRODUCTION**

Section 498A of the Indian Penal Code deals with any kind of cruelty done on a married woman by her husband or her in-laws regarding unlawful demands of dowry. The violence done can be with woman herself or any person related to her. The consequences of which led to the imprisonment which may extend to 3 years and fine. *Explanation*. —For the purposes of this section, "cruelty means"—

- (a) any wilful conduct which is of such a nature as is likely to drive the woman to commit suicide or to cause grave injury or danger to life, limb or health (whether mental or physical) of the woman; or
- (b) harassment of the woman where such harassment is with a viewstol doctoring her or any person related to her to meet any unlawful demand for an property or Valuablen

http://annalsofrscb.ro

Haryana

Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 459 - 473 Received 24 October 2020; Accepted 15 December 2020

### **Teaching English Online during COVID-19: Tradition versus Individual Talent**

Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram

Dr.Rajendra Kumar Dash, Associate Professor, GMRIT, JNT University Kakinada, Andhra Pradesh

#### Abstract:

English teachers, all over the world, have always preferred face-to-face mode of teaching to online teaching. With the advent of the Covid 19, however, a reversal has taken place. As the medium becomes the message in online teaching, the major challenges for the traditional Indian English teachers surfaced: (1) Neo phobia, (2) Technophobia, (3) Internet connectivity, (4) Materials preparation, (5) Lack of visibility of class as a whole at a time, (6) Monitoring, (7) Non-cooperation from some students, Overdependence on Paralanguage, (9) Innovation with pedagogical tools, and (10) Assessment. This study used telephonic survey and convenient sampling method focused on a questionnaire that was designed to elicit data. Data was collected from 300 respondents from 100 Engineering colleges spread across five Indian states of India--Andhra Pradesh, Telengana, Karnataka, Tamil Nadu, and Kerala. The final data for study takes into consideration 100 faculty members based on region (each state 20 participants and urban and rural), age group (fresher: 1-3 years, mid-career: 4-9 years, seniors:10 years and above), gender (50male, 50 female), teaching experience, etc. This study finds that the English faculty in Engineering colleges have adequately adapted to teaching English beyond the classroom although the young and female teachers are ahead of senior and male teachers. It is concluded that the journey of teaching English online has gone from anxiety to comfortable to excitement phase during the Covid-19 period.

Keywords: Covid-19, Digital teaching, Engineering college, Teaching English, Teaching English online

#### **1. Introduction**

With the belief that prevention is better than cure for Covid-19, India declared lockdown of schools and colleges on 24 March 2020 which is in force at the time of writing this article. Digital teaching or online teaching remained the only alternative to the traditional face-to-face teaching. Engineering colleges adopted teaching online. Consequently, online teaching emerged to be an



School Of Business Sushaht University Sec-55, Gurugram Haryana

http://annalsofrscb.ro

459

### A Lesson on Production Structural Changes and Sector-Wise Performance among Indian States

Meenakshi Dhingra<sup>1</sup>

Satbir Singh<sup>2</sup>\*

Naveen Nandal<sup>3</sup>

\*Corresponding Author

#### Abstract

Main focus of the present study is to investigate the overall performance of different sector of Indian states during the post reforms period. It is found that the production structure of Punjab, U.P. and Bihar had remained transitional during 2015 to 2020 as in these economies the contribution of service sector is higher than agriculture share and agriculture share is higher than their industry contribution. It indicates these states are legged behind in their industrial production. But there are eleven states such as Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan and T.N. which have entered into modern stage of transformation as revealed by sectoral share in the period 2015-20. It means these states are enjoying better services and more industrial production. W.B., A.P. and M.P. fall under transitional stage. It may be pointed out that first five ranks are mainly occupied by the states such as Punjab, Haryana, A.P., U.P. and W.B. these states had common feature of their dominance are in agriculture production, and developed agriculture sector. The states like Maharashtra, Gujarat, Chhattisgarh, Karnataka, A.P. and Haryana are the achiever of top rank in industrial advancement comparison other remaining states. Two states namely Haryana and A.P. were identified for better performance in both agriculture and industry sector. In case of service sector most dominating states were Maharashtra, T.N., Karnataka, Goa, and A.P. It needs to be highlighted that Maharashtra state stands for 1st place in both industry and service sector performance.

Keywords: Composite index, sector performance, structural changes, economic development.

Sector

Harvan

5

Gurgaon

http://annaisofrscb.r

474

<sup>&</sup>lt;sup>1</sup> Assistant Professor, Sushant University, Gurugram, Haryana (India), Mobile: 8199922701, Email:meenakshiphd2016@gmail.com

<sup>&</sup>lt;sup>2</sup> PGT-Economics, Government Girl's Senior Secondary School, Koth Kalan, Hisar, Haryana. Email: nainsatbir@gmail.com

<sup>&</sup>lt;sup>3</sup> Assistant Professor, Sushant University, Gurugram, Haryana (India), Deabile mail: naveennandal@sushantuniversity.edu.in ool of Business Ansal diversity

Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 392 - 426 Received 24 October 2020; Accepted 15 December 2020

### Housing for the Elderly

### Ar. ZebaBaig<sup>1</sup>, Dr. Naveen Nandal<sup>2</sup>

<sup>1</sup> Research Scholar, School of Art & Architecture, Sushant University, Gurgaon, Haryana

<sup>2</sup> Assistant Professor, Sushant University, Gurgaon, Haryana

#### ABSTRACT

"India is aging with very high speed than before thought and is anticipated to have nearly 20% population of the world's 60 years and more than 60 by 2050 with the largest number of older adults in the world," Prasun Chatterjee, Department of Geriatrics, All India Institute of Medical Sciences (AIIMS) stated. One of the most talks over global phenomena in the current century is Population aging. Countries that are more populated such as India have many people now aged 60 years or more. This paper is focusing on the literature review of the physiological characteristics & challenges of the elderly, principles of design, standards and norms of elderly housing in India and case studies across the world.

#### **KEYWORDS**

Elderly Housing, ageing population, Insecurity, Safety, Healthcare, House Design, Publicprivate partnership, Ageing in place, Public Housing, Social Enterprise, Gerontology, Activities of Daily Living (ADLs), Adult Day Care, Assisted Living, Continuing Care Retirement Communities (CCRs), Hospice Care, Independent Living, Nursing Home, Universal Design

#### BACKGROUND

Older people were 7.7% of the total population, on the census 2001report, in census 2011 which rose to 8.14%. The estimate for population in 60 years in next upcoming four censuses is: 133.32 million (2021), 178.59 (2031), 236.01 million (2041) and 300.96 million (2051). The rise in number of the elderly population are the outcome of changing fertility and mortality regimes over the last 40-50 years (Ministry of Health and Family Welfare, 2011) & (Central Statistics Office, New Delhi, 2011).

INDEX	2001	2011	2021	2031	2041	2051
60 and above			-			
Number ( in millions)	77	96	133	170	0.00	
Percentage to the total population	7.5	8.2	9.9	179	236	301
Sex ratio (male per 1000 females)	1028	1034		11.9	14.5	17.3
70 and above	1020	1034	1004	964	1008	1007
Number ( in millions)	29	36	51	72		1.1.1
Percentage to the total population	2.9	3.1	01	73	98	132
Sex ratio (male per 1000 females)	991	966	3.8	4.8	6	7.6
80 and above	551	900	970	930	891	954
Number ( in millions)	8	9	11	16		
Percentage to the total population		-	11	16	23	32
Sex ratio (male per 1000 females)	0.5	0.7	0.8	1	1.4	1.8
Sex ratio (male per 1000 females)	1051	884	866	843	774	732

Table 1- Number, Population and sex ratio of the elderly, 2001-2051 "(Source- The Centre for Enquiry into Health and Albed Themes (CEHATA Support School of Business

h p://annalsofrscb.ro

Ansav University Sector-55, Gurgaon Haryana 392 Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 625 - 635 Received 24 October 2020; Accepted 15 December 2020

## **Impact of Employee's Performance during COVID-19**

Mrs. Anushka Shokeen,Research scholar association of Sushant University Dr. Naveen Nandal, Assistant Professor association of Sushant University

#### ABSTRACT

The main focus of this research paper is on how COVID-19 has influenced people's lifestyles, working habits, job satisfaction, employee efficiency, and behavior. Leadership is a leader's method of persuading subordinates with specific traits to achieve the desired goals. Any organization's success is dependent on its ability to lead. The leadership tactics employed in establishing conditions that allow the people they lead to become aware of the necessity to carry out their aims is one of the aspects that determine a leader's effectiveness. In other words, a leader's performance is determined by his ability to manage and apply his leadership style in light of the events and conditions of the company. During COVID-19, the most significant effect was on employee performance. The needs of the organization must be satisfied by leaders. It also affects the employee's day-to-day life, which must be cooperative with the job. Employee roles are critical in the workplace because they must adapt to the attitudes of managers and leaders during this pandemic period. However, in order to receive an appraisal or other reward from the company, employees must be perfect in their behavior and how they do their jobs.

Keywords: COVID-19, Employee's Performance, Job Satisfaction, Employee's Behaviour, Leadership.

#### **INTRODUCTION**

The COVID-19 pandemic in India is part of the global coronavirus disease pandemic of 2019 (COVID-19), which is caused by coronavirus 2 that causes extreme acute respiratory syndrome (SARS-CoV-2). On December 31, 2019, Chinese authorities informed the World Health Organization (WHO) about an outbreak of an unknown respiratory disease. On January 30, 2020, the WHO declared the outbreak of COVID-19 as a public health emergency of international concern. Cases extended quickly from the city of Wuhan to other parts of China and, since then, to the whole world (World Health Organization, 2020a). Since December 31, 2019, when the first case was reported to the WHO by Chinese authorities, close to 30 million cases have been confirmed in 216 countries, with more than 930,000 deaths (World Health Organization, 2020b).

At the start of 2020, it seemed as if the planet had been hit by a new disease. Nobody knows what the Covid-19 is or how it got here. It appears that a dark box has returned from the depths of history. Beyond medicine, epidemiology, and economics, psychological principles, like leadership, are critical to resolving this grave danger (Kniffin et al., 2020). How does this situation impact people's everyday lives, such as wearing masks and bringing a sanitizer bottle with them? It makes significant changes in the stock market, economics, financial instability, the atmosphere, education, food retailing, investment banking, and many other areas where unforeseen situations may arise in the future. It results in significant changes in organizational behavior, holiday entitlement, welfare, educational methods, and so forth.

http://annalsofrscb.ro

Dean-Syshant School of Business Ansal University Sector-35, Gurgaon Haryana Annals of R.S.C.B., ISSN: 1583-6258, Vol. 24, Issue 2, 2020, Pages. 449 - 458 Received 24 October 2020; Accepted 15 December 2020

### Impact of Household Income on Investors Attitude towards Crypto Currency

Dr Naveen Nandal, Assistant Professor, Sushant University, Gurugram Ms. Neetu Jora, Assistant Professor, Sushant University, Gurugram\* \*Corresponding Author email: neetujora@sushantuniversity.edu.in

#### Abstract

The goal of this study was to look into and understand how investors' attitudes regarding cryptocurrencies change as their income rises. The questionnaire was created to gather information on cryptocurrency investors' expertise, experience, trust, and other investing criteria. This study will be useful to forthcoming or existing bitcoin businesses in estimating their future viability based on revenue. The study also sought to identify variations in household income in the areas of cryptocurrency knowledge, investment, mining, and payment. The goal of the study was to analyze the data and come to a conclusion on male and female attitudes about bitcoin depending on their capabilities. The data revealed that there are variations in how people feel about crypto currencies.

#### Introduction

Cryptocurrency is the name given to a system that uses cryptography to allow the secure transfer and exchange of digital tokens in a distributed and decentralized manner. These tokens can be traded at market rates for fiat currencies. The first cryptocurrency was Bitcoin, which began trading in January 2009. Since then, many other cryptocurrencies have been created employing the same innovations that Bitcoin introduced, but changing some of the specific parameters of their governing algorithms. The two major innovations that Bitcoin introduced, and which made cryptocurrencies possible, were solutions to two long-standing problems in computer science: the double-spending problem and the Byzantine Generals Problem. A cryptocurrency (or crypto currency) is a digital asset designed to work as a medium of exchange that uses cryptography to secure its transactions, to control the creation of additional units, and to verify the transfer of assets. Cryptocurrency is referred as most secure way of payment transfers and a very risky for investment purpose, but it's always said higher the risk, higher the return. Enormous price fluctuations attracted many individuals to invest in the most popular cryptocurrencies to profit from the enormous price growth. Many investment experts warn against inflating cryptocurrency price bubbles and also against investing in the initial coin offerings (ICOs) of new cryptocurrencies. Many national authorities worldwide often constrict the possibilities of crypto currency usage by laws or regulations to prevent their possible negative impacts, such as money laundering, terrorism financing, and others. Similarly, many banks often do not offer services attached to cryptocurrencies.

A block chain, originally block chain, is a continuously growing list of records called blocksess which are linked and secured using cryptography. Each block typically contains ant University

http://annalsofrscb.ro



449

Sec-55, Gurugram Hanyam

- / Archives (https://the-new-arch.net/index.php/journal/issue/archive)
- / Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26) / Articles

## Towards A Sustainable Habitat in India

□ PDF (https://the-new-arch.net/index.php/journal/article/view/264/239)

Kankan Sood Kataria,Dr. Naveen Nandal

## Abstract

Sustainable Habitat is the need of many countries world over. In India, the problem is much starker with an estimated housing shortage of around 18 million houses, with 99% of this in the economically weaker sections of society. This paper sets out the concept of sustainable habitat, relevance in India; the institutions and agencies responsible for formulating and implementing sustainable habitat policies; government initiatives, changing trends in development sector; some good practices on Sustainable habitat from India.

#### **Research Methodology**

The methodology applied is explorative in nature. The data is collected using secondary sources. Various reports, and studies have been referred to, in the present research. The sources from where the data has been collected is listed below:

- · Research papers on the related topic
- Web resources related to the topic

Dean-Sushant School of Business Ansal University Sector-65, Gurgaon

Other Published material related to the topic ryana



#### **Objectives of the Study**

- Achieve clarity and understanding about the concept, core principles and indicators of sustainable habitat
- Appreciate the application of the concept in the housing sector
- Document Key Initiatives Undertaken in India towards Sustainable Habitat

## Bio Solar Terrace: A Review on Benefits of Photovoltaic Green Roof

Avitesh<sup>a</sup>, Dr. Tejwant Singh Brar<sup>b</sup>

Research Scholar, School of Art & Architecture, Sushant University, Gurugram, India
 b- Professor, School of Art & Architecture, Sushant University, Gurugram, India

#### Abstract

Terrace Garden and Photovoltaic rooftop systems are both considered as sustainable solutions for buildings as both are energy efficient & helps in reducing carbon emissions. These two systems are pretty different in framework and application and this is difficult to say which one is better as both are appropriate. Putting both at the same time will be beneficial to maximize the output of power of PV system through evaporate cooling and roof vegetation. There are many challenges to adopt both the technologies in combination because of the lack of experimental studies. This study is a formal review of the published studies (experimental and simulation) on the advantages of green roof and Photovoltaic system. This review is a detailed review on the benefits of PV vegetated roof and how this solution will help to improve energy output of PV-green roofs and CO2 emission reduction with long term benefits of PV-GR. The investigation of this paper will be an overview of the utility of bio solar terrace for the buildings during the operational phase and how worth it will be for the environment.

Keywords: Photovoltaic Green Roof, benefits, CO2 emission, sustainable solution, energy efficiency.

#### Contents:

- 1. Introduction
- 2. Methodology
- 3. Literature Review
- 4. PV Green Roof
- 5. Benefits of PV Green Roof
  - 5.1 Benefits of Photovoltaic green roof during its operational stage
  - 5.2 Benefits for energy output of PV panels
  - 5.3 CO2 emission reduction
  - 5.4 Long term benefits for PV-GR integration
  - 5.5 Benefits in dust removing and cleaning the surface of panel
- 5.6 Other benefits
- 6. Future Directions
- 7. Conclusion

References.....



81 | Page

## **Critical Review of Coastal Area Planning in India**

Harneet Kaur Assistant Professor, Sushant University, Gurugram Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram

#### Abstract

The paper aims to describe the ground realities of coastal area planning in India. Indian peninsular being reach in coastal resources still there is a technical and knowledge gap in harnessing the coastal resource to its optimum utilisation. The concept of blue economy and its utilisation is still to be developed in India where as in global scenario the countries like New Zealand is far ahead to us in creating the database and utilising the coastal area to its full potential. India needs to critically analyse the gaps in the process and implementation of coastal area planning as it will help our economy to flourish and to achieve sustainable development goal no 14. This paper will describe the potential changes and best practices to be adopted for enhancing capabilities of Indian coastal line through effective coastal area planning.

Key Words:Blue Economy, Coastal area, Coastal Management, Exclusive economic Zones, Geographical information system, Satellite data, sustainable Development.

#### Introduction

Coastal Planning is an essential need in countries having vast coastline and rich ecosystems with extensive exclusive economic zones. Coastal planning plays a vital role in inducing resilient and sustainable development in such countries.

Sustainable development goal no 14 which aim to sustainably manage and protect marine and coastal ecosystem from pollution (UNDP, n.d.). Hereby to achieve this goal adoption of adequate and potential coastal planning as a combat tool is necessary for countries like India and New Zealand.

India being a peninsular country covered with Bay of Bengal, Arabian sea and Indian ocean have a coastline of 7516.6 Km including Island of Lakshadweep and Andaman and Nicobar. On the other hand New Zealand is an Island country and is having 15000km of coastline which is twice the size of Indian coastline. New Zealand also has twice the size of exclusive economic zone in comparison to Indian exclusive economic zone.

Both the countries are working extensively on coastal planning and management but there approach and technique is different. The main purpose of comparing both the scenarios is to find out the best practise suitable for attaining sustainable development in the coastal and marine areas in India through adopting efficient and Integrated Coastal Planning and management approach.

#### Aim

"To understand the gap in Indian Coastal area planning and management in India and to adopt the best practices for achieving sustainable development goal number 14 for coastal and marine areas".

Dean-Syshapt School of Business Ansal ( Gurgaon Haryana

138 | Page

/ Archives (https://the-new-arch.net/index.php/journal/issue/archive)

/ Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26) / Articles

## A Study on Bridging the Gap between Academia and Architecture Practice in India

PDF (https://the-new-arch.net/index.php/journal/article/view/262/237)

Ar. Hemlata Budhwar, Dr. Naveen Nandal, Dr. Tejwant Singh Brar

## Abstract

ArchitectureEducationisthoughttobecrucialinthecreationandshapingofbetterspacesthrough the discipline. due to rapid Technological changes, Architecture Education has found difficulttokeepupwiththeProfession.Asaconsequence,thereisasignificantdifferencebetween it reality. The rapid speed of Technological change necessitates well-managed and realistic aspects of the theory and Curriculum structure. This paper looks at the current state of EducationinIndiaandtheTechnologicalchangesthatareneededtoreducethegapbetweentheory and practice. Architecture

Issue

Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26)

Section

Articles

(https://creativecommons.org/licenses/by-nd/4.0/)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

CC Attribution-NoDerivatives 4.0

Dean-Sushant School of Business Ansal University Sector-55, Gurgaon Haryana



/ Archives (https://the-new-arch.net/index.php/journal/issue/archive)

/ Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26) / Articles

## Typology of Houses and Social Stratification in Old City Aligarh – A Case Study of Bani Israilan

PDF (https://the-new-arch.net/index.php/journal/article/view/258/233)

Zeeshan Ahmad Ansari, Dr. Naveen Nandal

## Abstract

Social stratification has an impact on typology of houses and the technology globally. This study aims to explore the old Aligarh city during 1947-1991, in terms of types of house development and the public space around them between post-independence till the beginning of globalization. The research is focused on exploring the houses, those are still inhabitable condition, enlist and categories them on the basis of built-up area, occupation of dwellers, income, and social structure. Visual surveys and case studies were performed to understand the typology of the houses, common public spaces used around the year, construction material, architectural elements, and construction technology used in mohalla Bani israilan, as it was the only neighborhood fulfilling the prerequisites for research. The study concludes that the economic conditions and social stratification is well reflected in the typology of these houses through habitable spaces, building materials and construction technology used.

	he-new-arch.net/index.php/journal/issue/view/26) Dean-Sushant School of Business	
Section	Ansal University Sector-55, Gurgaon	
rticles	Haryana OR-55, GUR	A NOL

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

CC Attribution-NoDerivatives 4.0

- / Archives (https://the-new-arch.net/index.php/journal/issue/archive)
- / Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26) / Articles

## Review: Function of Green Landscape to Mitigate Urban Heat Island

PDF (https://the-new-arch.net/index.php/journal/article/view/256/231)

Jain Richa, Nandal Naveen

## Abstract

The Urban heat island (UHI) iswhere urban areas experience warmer air temperature than their surroundings rural area, we experienced this from so many years but now it has increased in large amount over some years due to increase in population, change of land use pattern, building orientation, facade, material, loss of vegetation etc are the causes of UHI. It also has an effect on the human health and leads to increase the energy demand which contribute to the heating of our urban environment. This review paperemphasises the importance of reducingUHI measure through green landscape which are beneficial to human health and environment too. There are many otheralternate strategies for future study and various mitigation strategies.

Issue

Vol. 7 No. 4 (2020) (https://the-new-arch.net/index.php/journal/issue/view/26)

Section

Articles

Dean Sushant School of Business Ansal University Sector-55, Gurgaon Haryana



(https://creativecommons.org/licenses/by-nd/4.0/)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

CC Attribution-NoDerivatives 4.0

Vol.11 No.2 (2020), 720-725

Research Article

## Digital Marketing: Paid Internet Advertising and Its Revenue Model

#### Ms. Anukriti Agarwal,

Scholar (Spring 2021), School of Business Ph.D. Program, Sushant University, Gurugram (Haryana)

#### Dr. Naveen Nandal,

Assistant Professor, School of Business, Sushant University, Gurugram (Haryana)

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

#### Abstract

This review paper has explored literature review of 18 research papers and review papers to understand the various types of digital marketing techniques and the existing literature on their performance indicators which are used to develop a revenue model. The research shows the rise of digital media and has helped understand various aspects of customer engagement, which is helping the brands improve their marketing strategies, increase their presence and revenue in the market. The past decade has seen the rise of digital marketing strategies, but there is still a lot of research scope to identify models to measure the effectiveness of each strategy and identify an optimal level of investment in digital marketing techniques. Another area of research that is currently catching the attention of the business houses is the increasing involvement of government regulations and policies to govern the e-commerce segment, social media marketing and even the fintech world of cryptocurrency.

#### Keywords

Digital Marketing, Social Media Marketing, return on Investment, Search Engine Advertising, Display

#### Introduction

The second decade of the 20th century saw the rise of internet and a new channel of marketing emerged that is the digital platform. This platform today is being used not only to sell products and services but also used to communicate with the target audience at large. The communication can include various campaigns, displaying information about products/ services, showcasing visual images of the products, capturing post-purchase behavior of the users and optimizing the distribution channels. A latest report of Statista published in January 2021, 59.5% of the world population has access to internet out of which 92.6% have access to internet via their mobile devices. These statistics are evidence that the platform of digital marketing has been penetrated to almost 60% of the world population and has become mainstream. (Herbig & Hale, 1997) The web platform has helped the brands reach millions of potential customers in a short duration of time, some of the forerunners in this were GE, IBM, Procter & Gamble, Kraft and Ford who were the first ones to registered their domain names on the world wide web. (Gould & Nazarian, 2018) The digital marketing platform strongly influences the individual's sphere of mind, before the era of online marketing the impact of advertisement was minimal with limited reach.

Ansal University Sector 55, Gurgaon Haryana



### Investigating Scope and Challenges in Cloud Based E-Learning System

<sup>1</sup>Shefali Arora, (Research Scholar at Sushant University), <sup>2</sup>Dr. Naveen Nandal E-mail :- <sup>1</sup>shefalibatheja@gmail.com, <sup>2</sup>naveennandal@sushantuniversity.edu.in

Article History: Received: 13 March 2020; Accepted: 05 August 2020; Published online: 28 August 2020

#### Abstract

Now a day, cloud computing and e-learning is rising speedily and plays a very huge and powerful role in the field of education and learning. Because of this smart phone users can perform their task easily and with effective manner with paying less cost by utilizing the cloud-based applications offered by the cloud service providers. Cloud computing in educational field is going beyond classrooms as an essential service. The higher education, distance education, online education etc. uses the services of cloud computing for the flexibility available for the students. Because e-Learning systems are open, distributed and interconnected, then security becomes an important challenge in order to ensure that interested, and authorised, actors only have access to the right information at the appropriate time. Security issues is one of the biggest concerns that has been affecting the growth of cloud computing. Although there exist some complications with data privacy. This data protection continues to affect the market. Users need to understand the risk of data breaches in the cloud environment. This paper reveals the prevalence of internal cyber-attack as well as a lack of proper IT policies and procedures in e-Learning systems, in light of their standard architecture and their specific security requirements.

Keywords: Cloud computing, Security, E-learning system, Performance.

#### [1] INTRODUCTION

Research has made an effort in order to provide better security with high performance in favor of cloud computing environment for distance education. Performance has been increased by reducing size of data by applying content replacement mechanism where large words have been replaced by small words. In order to increase security cryptography technique has been employed. In the technology of cloud computing, transmission of data is done on regular basis. This data is transmitted by means of Internet. Due to this, it becomes necessary to keep data safety factor in mind in the background of cloud. The cloud-based education systems [1] are frequently used by students, teachers, and professionals. The research work provides better quality services by increasing the performance and security for cloud-based distance education system.

#### 1.1 Cloud computing

Cloud Computing gives services over network which may be public or private. Cloud is available at remote location. It could be utilized in wide area network as well as in local area network. Virtual private network could also make use of cloud computing. Lot of application like e-mail and web dependent conferencing are implemented with the help of technology provided in cloud. Cloud computing has offered platform independency. It becomes possible because there is no need to configure any client system. Everyone knows the fact that mobile applications are frequently used in offices. Such applications are shared with cloud computing. A number of facilities are formulating the cloud computing more available and easier to access for operator. Demand of cloud services is increasing day by day because cloud applications are used on regular basis. All of this indicates that protection of data becomes computiory



P-55, G



Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3156-3162 http://ilkogretim-online.org

doi: 10.17051/ilkonline.2020.03.735480

## Impact Of GST On Compliance Requirements Of Msmes

Amarjit Singh, Research scholar, Sushant University, Gurugram Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram

#### **Abstract:**

Micro, Small and Medium Enterprises (MSMEs) plays a vital in the economic progress of India, the implementation of Goods and Services Tax (GST) has had an immense impact on their functioning in the market. Some enterprises found it helpful, however, majority felt problems in adopting it. For existing enterprises, GST simplified the tax structure, unified the market thereby improving operational efficiencies of MSMEs. In the earlier regime, the unorganized MSMEs were growing faster than the organized ones, as they were having lower compliance burdens With GST in effect, it has made the taxation system transparent thus bringing all entities at par, with reference to tax compliance burden. This paper assesses issues and compliance challenges experienced by MSMEs in the GST regime.

#### Key Words: GST, MSMEs, Compliance

#### Introduction:

Goods and Services Tax (GST) was introduced in India with effect from 1st July 2017. It was hailed as the biggest tax reform of independent India. GST subsumed most of existing indirect taxes, and created country wide uniformity of indirect tax incidence in India. Implementation of GST was result of political consensus built over two decades and was enabled by constitutional amendment passed by parliament, as well as, various state assemblies in India. Under GST amendment states gave away their exclusive powers to tax goods sold within respective states, and revenue from such transactions are being shared between union government and state governments. Similarly, union government gave away its exclusive right to tax services and under GST regime tax revenue from services are also being shared between union and state governments. One of the stated objectives of GST is to ease indirect tax compliance.

The different sectors of economy had different impact of GST on the them, this paper is dedicated to understand impact of GST implementation on compliance requirements of MSMEs.

Composite criteria defining MSMEs, applicable to both manufacturing and services providing enterprises, with effect from 01-July-2020 is under:

Classificatio n	Micro	Small	Medium
Investment in P&M and Equipment	Not more than INR 1 Crore	Not more than INR 10 Crore	Not more than INR 50 Crore
Turnover	Not more than INR 5 Crore	Not more than INR 50 Crore	Not more than INR 250 Crore

(Source: Union Ministry of Micro, Small & Medium Enterprises, Press Release dated 03-June-2020)

#### **Review of Literature**

Mukhopabhyay (2015) asserted that GST will benefit manufactures and traders, GST will benefit the manufactures, as they will not have to pay entry tax, there will have access to common market and central excise tariff will be eliminated. The abolition of entry tax will enable easy movement of goods transport. The GST regime will result in one uniform tax which will make rate of duties same all over India.

Phukan (2015) concluded that GST would do well for the economy in multiple ways, one of the major points is reduction of the tax burdens for manufactures, as well as for various other sectors in the economy. GST will facilitate to build a corruption free tax administration. Tax will be levied and collected at single point, rather than at different points of manufacturing to consumption. Consumers will benefit with see a prices reduction, and lower prices will enable more consumption.

Goel (2015) concluded that GST would be the next logical step towards widespread indirect tax reforms in India. It is aimed at being comprehensive for most goods and services, the government proposed the GST rate to be at 27 percent, however our finance minister Mr. Arun Jaitley proposed that the rate is too

3156 | Amarjit Singh

Ansal University

Sector Haryana

55, Gurgaon

Impact Of CST On Compliance Requirements Of **Msmes** Dean Sushant School of Business

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3163-3167 http://ilkogretim-online.org

doi: 10.17051/ilkonline.2020.03.735481

## Return Seasonality In Indian Stock Market

Amit Kumar Agrawal, Research Scholar, Sushant University (Erstwhile Ansal University) Dr. Naveen Nandal, Assistant Professor, Sushant University (Erstwhile Ansal University)

#### Abstract

The effect of seasonality is well seen in case of production and sales. For example, the increase in sales of rain coat during rainy season. Seasonality is a concept in which the event undergoes predictable and frequent changes during the calendar year. Investors invest in different classes of assets in anticipation of getting good amount of return. This return can be dependent on the factor of seasonality since we have witnessed the increase in return during particular events like Festival session, Budget Announcement, Financial Data announcement and many more.

This paper helps us in disseminating information about the effects of seasonality on the return earned in the Indian stock market and give idea whether an investor can earn abnormal returns by taking the advantage of the knowledge of seasonality factor.

**Keywords:** Seasonality, Anomalies, Calendar Effect, Announcement Effect, Market Efficiency, Abnormal Return, GARCH Model, Multivariate Analysis.

#### Introduction

There are many asset classes where an investor can invest and earn a good amount of return from that particular asset class. Every investor wants a good amount of return from the assets where s/he is investing. It is a general known fact that if an investor would like to earn higher return, s/he should be ready for higher risk. We can clearly see here that Return is a dependent variable and risk is an independent variable. Besides Risk, there are many other factors on which return can be dependent. One of these factors is Seasonality.

The demand of sweets increases in the festival session like Holi, Diwali etc. and it leads to the increase demand of sugar. This is one of the example of the seasonal variations. We all are well aware about this kind of seasonal variation. In many research papers, it was found that stock market returns exhibit the seasonality. In general sense, we can say that it is a kind of pattern, variation or fluctuation which is due to particular events like change in financial year etc. In specific sense, the data shifts frequently and predictably during the year in Seasonality. Any predictable fluctuation or pattern that recurs or repeats over a one-year period is referred to as seasonal. It is one of the properties of time series.

When assessing stock returns from a fundamental standpoint and since seasonality can have a huge impact on an investor's earnings and portfolio, it is critical to consider its effects. A business that generates more income during those seasons is more likely to make substantial profits during certain seasons and significant losses during others. If this isn't considered, an investor can decide to buy or sell securities based on current operations alone, ignoring the seasonal change that occurs as part of the company's seasonal business cycle.

The stock returns follow a predictable pattern at a particular time of the day or a particular day of the week or a particular week of the month. Seasonality in stock returns, on the other hand, contradicts a key finance theory. All stocks are fairly priced, according to the Efficient Market Hypothesis (EMH), and excessive returns cannot be achieved by searching for undervalued stocks. Future stock prices, on the other hand, follow a random walk pattern and cannot be predicted. The presence of seasonality in stock returns violates the market efficiency principle because the prices of equity are no longer random and can be forecasted based on past trends. This allows market traders to devise strategies related to trading that could result in extra ordinary gains based on historical patterns. Various researches explained the existence of seasonal component. They are called calendar anomalies (effects).

3163 | Amit Kumar Agrawal

Return Seasonality In Indian Stock







Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3142-3149 http://ilkogretim-online.org

doi: 10.17051/ilkonline.2020.03.735478

## Urban Synthesis: A Case Of Data Driven Practices In Urban Design

- Samruddhi Bhalerao <sup>1</sup>, Dr Naveen Nandal<sup>2</sup>, Dr Tejwant Singh Brar<sup>3</sup>
- <sup>1</sup> Assistant Professor, Sushant University, Gurugram
- <sup>2</sup> Assistant Professor, Sushant University, Gurugram
- <sup>3</sup> Professor, Sushant University, Gurugram

#### Abstract:

Urban areas or Cities are home to world's majority of population. There are no cross roads to the intense use of technology by humans for the smallest or the tiniest job in the everyday life. While unknowingly creating tons of data which could reasonably benefit themselves while negotiating with the space in the long run. Considering the recent trends and its human benevolence, use of technologies to demonstrate case specific urban issues and their investigation persist to be the newer avenue of research. The aim of this research paper addresses the deep understanding of the nexus between negotiation of humans in the urban realm and the digital technology. The idea here is to elaborate with the trending digital technology of data creation, data synthesis and data analysis.

Keywords: Urban Analytics, Urban Synthesis, Technology, Big Data, Urban Realm

#### **1. Introduction**

The synthesis of the urban sphere and the technology is the newer trend to the human realm. There have been very petite ideation and research being done where both these domains come together for a prospective better tomorrow. 'Urban Synthesis' as the word suggests, is the fusion or blend of human interaction with the urban realm and the lifestyle which in a way comprehends to the way of living which includes the technology in the minutest of the everyday activities. There has been an extensive urge to this fusion of research where we closely look at the betterment of the human society using technology without compromising the ecology and the environment. Having understood the basis of the human-computer interaction, it's important to recognize their future together and not as individual entities. Man has always been a producer of large quantities of data most often without knowledge but this has led to some technological heavy innovations. The research, discusses few of such ideations and technology led innovations and their future in the urban realm and urban design practices.

Technology advances at a breakneck pace. Technology is constantly improving, whether it's self-driving vehicles, robotics, or heavy autonomous devices. Both of these solutions, however, depend heavily on data, which has become the new oil for companies of all sizes and kinds, as well as sophisticated analytics technologies to analyze the data. Since big data is so important in driving digital change, data analytics helps leaders to interpret their data and gain actionable insights. While, in the new age times of the digital world, data are generated at high speed from various sources and the fast transition the digital technology has led to growth of big data(Gupta & Nimbre, 2019). Big data analytics has fascinated passionate interest from all academia and industry lately for its effort to excerpt knowledge, information and intelligence form big data. Big data and cloud computing, two of the most important trends that are defining the new emerging analytical tools (Chawda & Thakur, 2016).

The Users are producing massive quantities of data, but it isn't just humans. More items and computers are linked to the internet as a result of the Internet of Things (IoT), allowing companies to collect data on user use habits and product results. The rise of machine learning has resulted in still more details. Although big data has come a long way, its utility is just starting. (What is Big Data?, n.d.). Cloud computing has opened up many more opportunities for big data. To evaluate a portion of data, programmers may easily create ad hoc clusters, which provides fully scalable scalability. With their ability to view large volumes of data in a way that makes analytics quick and detailed, graph databases are also becoming more relevant.

31/12 | Communicated to 1

S142   Sann uddni Bhalerao	Urban Syn Design	thesis: A Case Of Data Driven Practices In Urban
		School Of Business Sushant University Sec-55, Gurugram Haryans

SASTE

## Impact of CHRO/CPO led best practices through HR department on SME Business Growth in India: A Literature Review

Mr. Debashish Das, Ph.D. Scholar Sushant University, Gurugram (Haryana) Dr. Naveen Nandal, Assistant Professor, Sushant University, Gurugram (Haryana)

Abstract: In the new normal it is well established that the greatest asset for business is people. Organizations may have plant and machinery, ideas, finance, technology but human capital makes the difference. Whereas large organizations have understood the criticality of this aspect Small and Medium Enterprises (SME) are still warming up to the idea. Some SME have HR department and use it effectively to implement people practices and run the organization professionally, whereas others make it as a simple transactional and administration focused function only to implement directions provided. In the process the strength and rigor of better people practices which the HR department can deliver is compromised. This study aims to identify the impact which a CHRO/CPO and the HR department can make in SME organizations to grow the business professionally. Key Words: HR in SME, SMEHR, CHRO in SME

#### Introduction

#### India vision of GDP by 2030 of \$5 Trillion:

India has witnessed tremendous vigour and vibrancy in its economic growth in the last decade. The current vision of making India a 5 trillion USD GDP economy will propel India to status of a developed economy and may give the status of an economic super power. Indirect taxes through services have a significant contribution towards this agenda. The key factor in this growth would be the various businesses which contribute to the economy. Indian SME has a very and critical role to play in this growth story and vision of Indian economy by 2030.

## Indian SME role in growth of Indian GDP, definition, types:

Indian SME eco system is a unique eco system and perhaps a unique model to study. the classification of SME in India is defined by Ministry of Small and medium Enterprises(MSME).

The classifications are:

School Of Business Sushap: University Sec-56, Gurugram Haryana 9521



## Sage Journals

Industry and Higher Education

Impact Factor: **1.7** 5-Year Impact Factor: **1.7** 

-	Previous issue ume 35 Issue 3, June 2021	$\underline{Next} \xrightarrow{issue} \ominus$
View	issue contents 🗸 🗸	View additional files $~~$ $\sim$
	Select all	Export selected citations
		147–149 PDF / EPUB
View	points	
	Restricted access Research article First published September 3	30, 2020 pp. 150–
B	ehnam Pourdeyhimi Sushart University review abstract ~	<u>ll portion of university</u> Privacy

		9	Open A	cess	Research	article	First publi	shed Septe	mber	11, 2020	pp.	188–2	00
		<u>What</u> secto	<u>t can rese</u> o <u>r</u>	<u>arch orga</u>	nizations l	earn from	<u>their spin-c</u>	off compan	iles? Si	<u>case st</u>	udies in	<u>the wa</u>	iter
			ens K Hes ew abstra	·	aro Moore	en, Emmy	Bergsma		•	,			
									ſ	PĮ	DF / EPUB		Ł
(			Restricted 210	access	Resear	ch article	First pu	blished Se	ptemb	er 2, 202	20 p	p. 201–	-
		ducut	<u>d greater</u> tion 				<u>for a sociol</u>	ogical und	erstan	<u>ding of I</u>	<u>Philippine</u>	<u>e highe</u>	<u>er</u>
			<u>v abstract</u>		ique Niño I	<sup>9</sup> . Leviste							
										GET	ACCESS	6	
	] [	} 0	pen Acce	ss Re	search arti	cle Fi	rst publishe	ed July 30, 2	2020	pp. 2	11–222		
			rative mu a Ekunday				<u>ty surveying</u> non Olusola			<u>ectives</u>			
			<u>abstract</u>			, JOIO		a Babatund	le				
						Dea Cchool Sustar Sec-25,	Øf Business It University Gurugram F	š		PDF /	EPUB	$\downarrow$	
	0		stricted a		Research		First publi	shed Augu			pp. 223	-232	
	Mee	enaks	ffecting p hi Dhingra rract へ		<u>and hiring</u> hash C Kur		: A study of	students' r	<u>oercep</u>	<u>tions</u>			
							ATTS NS	* 3500				Privad	cy

### Abstract

This paper assesses students' perceptions concerning the level of campus placement activities of their higher education institution (HEI) and determines the order of importance of various factors, as perceived by students, relating to employers' selection ...

	GET ACCESS
	Restricted access Research article First published October 7, 2020 pp. 233–243
	<u>Contribution of academics to university–industry knowledge exchange: A study of open innovation in Sri Lankan universities</u>
	IMS Weerasinghe,HH Dedunu
	Preview abstract 🗸
	GET ACCESS
2	Restricted access       Research article       First published July 27, 2020       pp. 244–251         SMEs and HEIs: Observations from Brunei Darussalam and Germany       Jana Heilmaier       , Mayyer Ling         Preview abstract       ✓
	Dean Cohool Of Business GET ACCESS P Sustant University Sec-55, Gurugram Harts
Cas	se Study
	Open Access     Case Report     First published October 1, 2020     pp. 252–263
	Mentoring PhD students working in industry: Using hermeneutics as a critical approach to the experience Privacy

### Shahnaz Husain - A Successful Indian Woman Entrepreneur

Dr. Aarushi Kataria, Assistant Professor, Bharati Vidyapeeth University, New Delhi

Dr. Naveen Nandal, Assistant Professor, Ansal University, Gurugram\*

Dr. Ritika Malik, Management Consultant and Visiting Professor

Email address:naveennandal22@yahoo.com or naveennandal@ansaluniversity.edu.in

#### Introduction

Shahnaz Husain, Founder, Chairperson & Managing Director of the Shahnaz Husain Group of Companies, the prominent Indian female entrepreneur best known for her herbal cosmetics, particularly skin care products. She is making a constant effort to beautify the skin of people with her beauty products. She has been continuously striving hard to slow down the aging process and nourish the skin of people and thus make them look younger than their age. Well, we are talking about none other than the ruler of the beauty world, Shahnaz Husain.

She captured the markets around the world and now she wants to conquer space. In an innovative move, Shahnaz Husain has started work on formulations that astronauts could carry with them in their extraterrestrial sojourns to protect their skin from the ravages of space travel and slow down the ageing process. She has sent National Aeronautics and Space Administration (NASA) free samples of her moisturizers, hoping that they will be used on space expeditions. Shahnaz Husain is one of India's most successful women entrepreneurs. Her company, Shahnaz Husain Herbals is one of the largest manufacturers of herbal products in the world Today, Shahnaz Husain heads the largest organization of its kind in the world, with over 400 franchise ventures worldwide and over 375 formulations for skin, hair and body care. Her journey, from one herbal salon to a worldwide chain of franchise ventures, is one of unprecedented success. The Group has seen a good growth rate in the 25 years that it has been in business.

Says Shahnaz, "I used to make the products at night, filled them in jars myself. I wrote out the labels by hand and stuck them on the jars. It did not deter me at all. My relentless determination and iron will saw me through those days." Today, the Shahnaz Husain Group

has four factories. A number of awards, both national and international have been conferred on Shahnaz Husain. Recently, during the month of September 2012, she achieved the unique distinction of being honoured with THREE prestigious international awards in London, in one month including the "Outstanding Ayurvedic Innovation Award" in the British Parliament . Shahnaz also received the World's Greatest Woman Entrepreneur Award from Success, the U.S. based Business Magazine. She

ISSN: 2005-4289 IJDRBC Copyright ©2020 SERSC Dean-Sushant School of Business Ansal University Sector-56, Gurgaon Haryana



88

- / Archives (https://www.the-new-arch.net/index.php/journal/issue/archive)
- / Vol. 7 No. 4 (2020) (https://www.the-new-arch.net/index.php/journal/issue/view/26) / Articles

# Taxonomy of the Affective Domain and Developments in Axiology

DF (https://www.the-new-arch.net/index.php/journal/article/view/257/232)

Sachin Datt

## Abstract

Taxonomy of educational objectives were divided into taxonomy of cognitive domain, affective domain and psychomotor domain by Benjamin Bloom and his associates (Bloom,et. al. 1956). However, only the taxonomy of cognitive domain, also known as the Bloom's taxonomy, has gained popularity among educational administrations throughout the world (Gable,1986). Several Accreditation agencies require an educational program to align their curriculum to Bloom's taxonomy ( cognitive domain ) for ranking and grading of curriculum aspects of educational programs at school and university level. However, the graduate attributes outlined by Educational administrationsnot only make cognitive aspects as part of learning objectives, but also affective and psychomotor aspects, since cognition, affect and psychomotor development complete all aspects of a person's growth process (Tyler, R. W., 1973). This paper is an attempt to identify issues with the current state of taxonomy of the affective domain and how developments in the field of axiology provides a promise for constructing better (usable) taxonomies of affective domain and how development in defining affect based educational objectives for school and university curriculum.

Issue

Vol. 7 No. 4 (2020) (https://www.the-new-arch.net/index.php/journal/issue/view/26)

Section

Articles

Of Engg. 8. Technology

© () ©

(https://creativecommons.org/licenses/by-nd/4.0/)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License (https://creativecommons.org/licenses/by-nd/4.0/).

CC Attribution-NoDerivatives 4.0

ISSN: 2349-8889 Volume-8, Issue-5 (September 2021)

https://doi.org/10.31033/ijrasb.8.5.1

## **Therapeutic Interior & its Effects on Patients**

Anjali Marwah School of Design, Sushant University, Gurugram, INDIA

Corresponding Author: amarwah69@gmail.com

#### ABSTRACT

The interior of the room is influenced by user perceptions of psychological security, closeness, selfdisclosure, the ability to form therapeutic connections, and the feeling of the Persons in the environment. Poor treatment spatial design may increase emotions of otherness, hinder agency development, restrict communication, and result in poor service user outcomes and experiences. In this paper, we have discussed the influence of interior design of clinic or home space on therapeutic process. Architectural elements are the generally permanent components of an environment in which a clinic or the house is located such as the physical design, design, size and form of the furniture, closets or other equipment, and the materials used in its construction. Low lighting may have a pleasant and calming impact on an individual's perceived attraction and customer selfdisclosure. The findings show that the interior design of the counselling room may have an impact on communication and other human interactions. The environment of the room may also influence communication. Sommer (1969) found that the discussion of female geriatric participants rose in a pleasant or socio-fugal setting, including flowers, magazines, vase and others. From a practical point of view, knowing environmental variables in advice like lighting effects enables advisors more effectively to undertake therapy. We see counselling contexts as overlapping areas, as do other scholars. The connection between environmental and clinical psychology should be made clear to counsellors, clinicians, psychiatrists and their organisations. They are more conscious of environmental effects throughout their treatment sessions.

Keywords- Interior design, Architecture, Therapeutic Interior

#### I. INTRODUCTION

Indoor environments - the personal and public spaces in which we spend a significant amount of time have an impact on our well-being. Sally Augustin, a doctorate scholar in applied environmental and design psychology and design creator with science, founded Design with Science, an international consulting firm that believes that a place should help us to accomplish specific objectives. We also acknowledge manad architectural design and execution are closely related to have an impact on mood, consciousness, and behaviour gram

A therapeutic environment is distinguished by its softness, distinctiveness, and orderliness.

Graham et al. (2015) asserted that the house is an excellent psychological research topic, and their findings were supported by other researchers. "Houses are essential real-world environments where fundamental psychological processes occur on a daily basis." During this time, processes like as connection formation and identity formation (both within and beyond cultures), emotion management, and growth take place. As a result, Graham and colleagues conducted an online poll to compile a list of the atmospheres that individuals would want to establish in their "dream home." The poll's results backed up their claim. The study asked participants to select two settings from a list of 29 rooms in each of their home's 18 distinct rooms. According to Graham et al. (2015), the top three atmospheres for all of the rooms, from the most popular to the least popular, were pleasant, organised, and relaxed. Graham and colleagues claim that "the atmospheric distributions differed significantly in all rooms." However, although respondents' preferences were taken into account while selecting the mood, the selections tended to fit the purpose of the rooms. For example, more than half of the respondents indicated that they wanted to establish a welcoming atmosphere at their entrance.

Graham et al. (2015) faced many limitations in their research since the poll was performed in a Western (i.e., white, Euro/America centre) household, which restricted the results. Travis, one of the study's authors, also had architectural clients who responded to survey questions. Despite the fact that the research focused on a hypothetical ideal house, the respondents had the financial means to buy and build a new home for themselves. Making a list of settings, as suggested by the research, is beneficial for thinking on the ideal ambience of a therapeutic location, which is particularly beneficial for home therapists.

Tony Torrice, a recently deceased interior designer specialising in therapeutic designs for children and the handicapped, suggested the connection between unconscious healing and colours associated with hindu chakras (defined as energy centres in the body that power different major organs and systems). Chakras are poor health and mental health problem. The architecture which correspond to the tody regions afflicted by organ of a counselling room, in particular, has been shown to package of frozen miled leggies, these colours have

This work is under Creative Commons Attribution-NonCommercial-Notest aires 4.0 International License.

GLR

## Emotional Aspect of Product Design: An overview

#### Taral Harish Shah

University - Sushant University, Gurugram, Haryana, 122003, India



Many professors and researchers have recently worked on design and emotion. Many studies, strategies, and theories have been developed to better understand the relationship between design and emotion, and how to successfully employ emotion to design. Different perspectives exist on what emotional design is and how emotion is used in design. Some designers utilise it to convey messages and emotions to people, while others see it as a sort of interaction with an object. Others see emotional design as a way to better portray the consumer's identity and personality through their purchases. Some first research was done on the links between design, emotion, and human responses. Emotionalize design is a term used to describe how emotions play a vital part in design. The relationships between these words, their particular responsibilities, and how they interact in the overall picture of design and emotion are unknown to scholars. This study will help us better understand how human-centered design interacts with three types of human-centered design: emotion design, emotive design, and emotionalize design. It will examine their connections in new light. Introduce and summarise these ideas. A novel way of distinguishing them will be described.

### 1. Introduction and background

Products have been discovered to elicit emotion from customers, and that plays a big role in their overall contentment and success. For designers, creating products that cause certain emotions in the consumer, in order to influence their purchasing decisions, is extremely significant(Wiecek et al., 2018). Companies that focused on connecting with consumers' subtle demands have achieved success by anticipating the customers' needs. Regardless, while working on a cross-disciplinary team, each member's varied worldviews will almost certainly create conflicts over priorities when handling consumer demands. Products which don't elicit the expected feelings will arise due to this practice.

An example of this is new product development, which may be hindered by substantial discrepancy between user behaviour intentions and product attributes derived from disparate sources, like social media platforms (such as Twitter and Facebook). Because of how quickly user preferences and emotional states can change, businesses try to make sure that the new products they sell match customers' expectations. This helps keep the company ahead of the competition (Mallin& de Carvalho, 2015). In this situation, people have really high expectations, and extensive product adoption will be required to fulfil those expectations in a quick, inexpensive, and convenient way. SM platforms exhibit the expectations of users through their collective communication systems (Alalwan et al., 2017). One way to understand how customers feel about new product launches is to examine these communication systems (Meiselman, 2015). Businesses must continuously keep tabs on the smotions effort on the substantication out their customers' needs, businesses can boost their overall capacities, lower the

ISSN - 2229-3620 APPROVED UGC CARE VVS



SHODH SANCHAR BULLETIN Vol. 10, Issue 40, October-December, 2020

Page Nos. 124-129

AN INTERNATIONAL BILINGUAL PEER REVIEWED REFEREED RESEARCH JOURNAL

#### UNDERSTANDING THE IMPACT OF HOSPITAL MEAL ORDERING SYSTEM ON PATIENT MEAL CONSUMPTION IN PRIVATE HOSPITALS AROUND THE GLOBE. In Mr. Saurav Chhabra\* Prof. Dr. Garima Parkash\*\*

### ABSTRACT

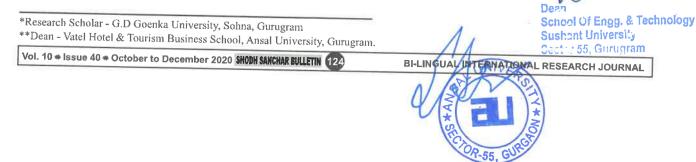
Malnutrition in patients admitted at private hospitals can be combatted with the help of nourished meals, which in turn will increase the meal consumption rate and aids in speedy Patient's speedy recovery. Most hospitals in India especially private hospitals have a fixed cyclic menu for general ward patients and offer very limited meal choices as they focus more on patient's treatment and medical procedures rather than provision of meals and most important providing meals based on patient's preferences and likings. The result is lower meal consumption rate in private hospitals of Delhi. A positive shift has been seen lately in the hospital Administration, with the increase in the amount of research on the role of nutritional food and its positive impact on patient's overall well-being and recovery. Hospitals now give equal emphasis (if not more) to the Meal Production, Variety and delivery system. The Research provides an insight to the role of Patient Centric meal ordering system in improving patient's meal intake. The aim of the research is to list down an Alternate way i.e. through Room service type meal ordering system where the patient's have a flexibility to choose food items of their choice taking into consideration their Health status and medical restrictions. With the Concept of E-Menus followed by most of the known private hospitals outside India. A shift in the thought process of Hospital administration is the need of the hour. Collaborative innovative methods are required to improve patient's nutritional Intake besides set meals addressed as so-called balanced meals or therapeutic meals that lacks in Texture, Eye appeal and other meal related attributes.

Keywords: Nutritional, Cyclic, Collaborative, Consumption, Administration

#### Introduction

Optimal nutritional management and proper patient care becomes very important to avoid clinical issues in patients. Use of advance technology specially in hospitals outside India such as electronic medical records, electronic medication management, and other Wellbeing organizations, institutions & Medicinal information technology and advancements have played a key role in improving patient wellbeing, Food Hygiene, safety and clinical decision making in hospitals. (Prgomet et al, 2017 & Georgiou et al, 2011). One of the serious issues hospitals face today is Malnutrition. It is often associated with prolong hospital stay, readmissions, increased hospital infection and even higher mortality rates (Correia & Waitzberg, 2003). Electronic meal ordering systems (EMO) benefits the patient by enhancing efficiency of food service, monitoring of nutritional content, including fluid intake for individual patient and hence helps in identifying malnutrition in patients (Conrick, 2011 & Skouroliakou et al, 2009). **Review of Literature** 

Presence of chronic disease may impact patient's dietary intake (Pennington, 1998 and Akner & Cederholm, 2001). This may be further influenced by interruptions in meal timings (porter at al, 2015). Furthermore poor consumption can also result from the



ISSI	N - 2229-3620
UGC	CARE LISTED JOURNAL
(SID)	



SHODH SANCHAR Bulletin January-March, 2021 Vol. 11, Issue 41 Page Nos. 36-42

AN INTERNATIONAL BILINGUAL PEER REVIEWED REFEREED RESEARCH JOURNAL

## "CLEANLINESS THEATRE"- A SYSTEMATIC APPROACH TO INDISPENSABLE HOTEL HOUSEKEEPING IN INDIA. Chandana Paul\*\*

### ABSTRACT

Cleanliness & hygiene theatre is the need of time & happen to be a systematic view towards safe, hygienic & sanitised housekeeping. The five star hotels in the country have already started working on the concept of Cleanliness Theatre as the pandemic has brought about revolutionary changes in the domain of cleaning & sanitation protocols for instilling great amount of confidence amongst the customers. The recent Pandemic has created the opportunity to housekeeping community to think out-of-the-box & implement such concept towards making housekeeping an indispensable department. Guests in the post-pandemic era will be more concerned and careful and will suspect anything that could be a potential health hazard & this concept actually provides the sense of safety to everyone related to the industry.

Keywords : Cleanliness Theatre, Housekeeping, sanitation, indispensable cleaning.

#### 1. Introduction

Irrespective of the dimensions that COVID-19 scenario may have taken, we're trying to be optimistic and are certain that the businesses would be restored and the situation would, sooner or later, get back to a state if normalcy. Be that as it may, the apprehension instilled in humans' minds concerning this pandemic, it is assumed, would linger for a longer time as a part and parcel of a collective social anxiety.

This implies that the newly ordained hygiene parameters at Hotels and service establishments would, in all likelihood, continue to be in perpetuity, notwithstanding the cost involved in putting them into practice. People at large would nearly continue to uphold a heightened sensitivity for hygiene and cleaning practices in public areas or at any imaginable space which is likely to be frequented by guests. Eventually it is these guests only who are going to be the Ambassadors of Goodwill and would stand to be the real judges of a service establishment, whether explicitly or implicitly. Compared to the level of consumer satisfaction in the past, the ignorance or disrespect of SOPs in sanitization in the current times would be detrimental and give rise to terrible opinions to such an extent that even continuance of the star-rating of hotels could be at a risk. We all are aware of the potency of on-line reviews, which are the primary media influencers and serve as powerful mirrors, reflecting thereby the very professionalism and guest-orientation in hotels.

The current circumstances would influence the hospitality to, apart from sharpening its focus on updating and upgrading the contemporary standards of hygiene and sanitation, also put into practice the implementation of methods helpful in deterring the possible upsurge and the spread of the pandemic

#### 1.1 Cleanliness Theatre

Cleanliness theatre is the systematic way forward to instil & provide the guest with confidence of indispensable housekeeping. This leads us to the concept of 'cleanliness Theatre' which is primarily based upon the

\*Assistant Professor - Sushant University, Gurgaon \*\*Assistant Professor - Sushant University, Gurgaon Vol. 11 \* Issue 41 \* January to March 2021 SHODH SANCHAR BULLETIN 36 GET 55, GUBI-LINGUAL INTERNATIONAL RESEARCH JOURNAL



## ACADEMICIANS' PERCEPTION ON THE APPROPRIATENESS OF CURRICULUM TOWARDS EMPLOYABILITY OF HOTEL MANAGEMENT GRADUATES OF DELHI NCR INSTITUTES

<sup>1</sup>Dr. Ayan Basak, <sup>2</sup>Subir Kr Malakar, <sup>3</sup>Dr. Hemant Kr Singh, <sup>4</sup>Deepak Thakur

<sup>1</sup>Assistant Professor, <sup>2</sup>Associate Professor, <sup>3</sup>Assistant Professor, <sup>4</sup>Assistant Professor <sup>1</sup>Amity School of Hospitality, <sup>1</sup>AUUP, Noida, Uttar Pradesh, India

Abstract: In this study the prime dimension of employability of hotel management graduates i.e. appropriateness of Curriculum has been conversed. In order to clearly identify the importance and validity of the curriculum, Descriptive Analysis, Exploratory Factor Analysis and Difference Analysis was done on the underlying factors, influencing the perception of Faculty members towards employability prospects of degree courses in hospitality. A Review Questionnaire was constructed and been sent to 120 Faculty members having more than five years of experience from 3 IHMs and 12 Universities of Delhi NCR, to collect the Data. We have found that factors, influencing the perception of Faculty members towards employability prospects of degree courses in hospitality are: Objectivity of the curriculum, Practical Relevance of the curriculum, Future Entrepreneurial Orientation of the curriculum, Students Expectations from the curriculum, Work experience and location of academicians.

Index Terms - Employability, Hotel Management, Curriculum, Faculty

#### INTRODUCTION

In the revolution of new millennium, emphasis on hospitality sector business has been strained drastically. A few elements can be represented the increasing prominence in hospitality business, like, new novelty and improvements in technology, clients' various needs, additional choice available in support of customers, soaring rivalries among different sectors of hospitality. Thusly, it has turned out to be all the more difficult to remain along the altering preferences of customer wants& desires. Hotel business being the focal point of the hospitality sector business is encountering indistinguishable difficulties like others in keeping up gifted and qualified workforce to adapt to the present difficulties and take into account of changing necessities of the present clients.

As a connected stream, hotel management schooling has a nearby and solid association with hospitality business, and need to teach their understudies by staying up to date with the present business style and patterns (Goodman and Sprague, 1991). Notwithstanding, shortage of capable as well as focused working team is always been a continuous concern in the hospitality sector business. Budding importance of hospitality sector specialists and a lack of talented and focused work force could be converted to, developing a immaculate hotel education curriculum to perfectly fulfil the demand of hotel industry demand of skilled and knowledgeable working team for the current scenario and as well as for the future.

#### **Purpose of Study**

The motivation behind this study is to survey and break down how current hotel management programs enable in understudy to plan for his/her future vocation in the hospitality business by assessing the hotel management curriculum including theore ical module and practical training. As it were, the examination plans to discover how the hotel management educational modules (doo understudies' readiness from their points of view. More specifically, taking into account that this is a research work of limited scope, the study aims to determine how the current hospitality curriculum at the School of Hotel Management in Delhi NCR contributes to students' preparedness.

School Of Engg, & Technology Sushant University Sector 55, Gurugram

IJRAR21A1090 International Journal of Research and Analytical Reviews (IJRAR) www.iirar.org 821

## **INDUSTRY EXPERTS' INSIGHT ON SELECTION CRITERIA TOWARDS EMPLOYABILITY OF** HOTEL MANAGEMENT GRADUATES OF **DELHI NCR INSTITUTES**

<sup>1</sup>Dr. Ayan Basak, <sup>2</sup>Dr. Hemant Kr Singh, <sup>3</sup>Dr. Sunil Kr Vohra, <sup>4</sup>Mr. Deepak Thakur, <sup>5</sup>Mr. Ritesh Pathania Assistant Professor, <sup>2</sup>Assistant Professor, <sup>3</sup>Assistant Professor, <sup>4</sup>Assistant Professor, 5Assistant Professor <sup>1</sup>Amity School of Hospitality,

AUUP, Noida, Uttar Pradesh, India

Abstract: In this study one of the key dimension of employability of hotel management graduates i.e. selection criteria for recruitment has been conversed. In order to clearly identify the significance and legitimacy of the selection criteria for recruitment, Descriptive Analysis, Exploratory Factor Analysis and Difference Analysis was done on the underlying factors, influencing the perception of Industry experts towards employability of hotel management graduates of Delhi NCR institutes. To collect the Data, a Review Questionnaire was constructed and been sent to 230 Industry professionals with experience varying from 1 years to 15 Years in Industry. Three categories of respondents among industry practitioners were included in the study, HR Managers, Training Managers and Operation Heads. We have found that factors, influencing the perception of Industry experts towards employability prospects of degree courses in hospitality are: 1. Academic Merit, 2. Applied Aspects, 3. Past Reputation, 4. Social Smartness, 5. Work experience and designation of Industry experts.

Index Terms - Employability, Industry professionals, Hotel Management, Selection criteria

#### INTRODUCTION

In the first decade of the 21st century, the employability skills of hospitality students have become one of the most important topics on the higher education agenda. In the contemporary world, the promise of a stable lifetime role with one employer and the potential for linear career progression, whether by choice or circumstance, are neither longed for nor realistic. There might be a huge difference between the knowledge and skill impregnated in the students by the college and the expected skills and attributes from the employers' point of view. Employability skills that employers regard for entry-level/ management-trainee positions in the hospitality industry are very specific and aligned with the current trends and basics of hospitality industry. Here, employers' work experience and the designation are also kept under consideration for conclusion. The analysis focuses on the information and insight to experiential learners about the skills currently available to students, the need for additional skills; students need for further development of skills, and those skills employers deem most important.

As a connected stream, hotel management schooling has a nearby and solid association with hospitality business, and need to teach their understudies by staying up to date with the present business style and patterns (Goodman and Sprague, 1991). Notwithstanding, shortage of capable as well as focused working team is always been a continuous concern in the hospitality sector business. Budding importance of hospitality sector specialists and a lack of talented and focused work force could be converted to, developing a immaculate hotel education curriculum to perfectly fulfil the demand of hotel industry demand of skilled and knowledgeable working team for the current scenario and as well as for the future.

#### **Purpose of Study**

The motivation behind this subjective study is to find out the underlying of criteria's, influencing the perception of Industry professionals towards employability prospects of degree courses in hospitality by assessing the considerations given by Industry professionals to Academic Merit, Applied Aspects, Past reputation, Social Smartness and off course the Curriculum including theoretical module and practical maining. More specifically taking into account that this is a research work of limited scope, the study aims to determine how the current hospitality curriculum and

DIEngg.&T IJRARJFM1462 International Journal of Research and Analytical Reviews (IJRAN www.ilrar.org 975 : 55, sush:

Secti

GUR

## Green Human Resource Management & Sustainability: A Telescopic view of Service Industry in India

#### Chandana Paul, Anshu Rawal, Saif Anjum

Assistant Professor, Sushant University Gurgaon,122003

Abstract: Environmental sustainability is a sort of momentous issue that it has already drawn attention of academicians and control disciples. As part of the environment, agencies should ensure environmental sustainability via its Human aid control (HRM) practices. Green human resource management is mandatory in this regard because it helps to combine the environmental control into HRM of a business enterprise to ensure environmental sustainability. This paper focuses at discussing the green HRM practices alongside its sustainable desires based on handy literature on inefficient HRM and environmental sustainability and additionally presenting a conceptual framework of the connection among them. The paper additionally explores the tasks and role of HR of ITC Hotels, TCS, Wipro, ONGC which are renowned companies in India and also major revenue generators of the service industry in India. The paper also observes the good practices of these selected organizations of the service industry and the impact of these good practices on the overall outcomes of the organizations as this helps the organizations to become more conscious of their business and corporate social responsibilities in a better way.

#### Keywords: Environmental management, Sustainability, Green HRM.

#### 1. Introduction

Sustainability is described as the capability to meet the needs of the present generations without compromising the needs of the future generations to fulfill their needs & requirements. So, sustainable development is termed as a stability process among profit, planet and people. Inside the context of business, sustainability method a lingering decision through enterprise businesses to create new activity opportunities together with generating economic wealth into the near destiny (Deshwal, 2015). A sustainable organization is the one with economic, social, and environmental blessings and concerns for the internal and external environment. With the passage of time more companies are trying to incline closer to the environmental sustainability because the excess emission of carbons, worldwide warming and pollution will risk the existence of individual within the earth. Herbal calamities like earthquakes, frequent floods and vanishing of positive species and animals are the consequences of ecological imbalance. Going green in every element of life is now the need of time. Corporations have already commenced to understand the want for a green sense of obligation to shop the surroundings. So, the term inexperienced Human resource management (green HRM) is gaining recognition some of the commercial enterprise groups because the HR features becomes the motive force of environmental sustainability.

In step with Renwick et al., (2008), Green HRM is the combination of company environmental control into human aid control. It includes venture such HR activities with environment friendly and could similarly cause more effectiveness, price reduction and higher worker engagement and retention. A few inexperienced HR tasks like electronic submitting, car-sharing, job-sharing, teleconferencing and virtual interviews, recycling, tele-commuting, on line training, power efficient workplace space and so forth. Assist the enterprise to lessen carbon footprints (Mandip, 2012). Inexperienced HR also facilitates the corporation to lessen unnecessary wastage of papers and right utility of inexperienced human aid rules which include green planning, green recruiting & choosing, green employee control and green worker relations. It presents the shade of green in the place of job that is essential for the sustainable improvement.

Although 'Green HRM' is gaining popularity amongst managers, personnel, clients and other stakeholders, only a few research studies linked to the HRM procedure with the environmental sustainability. So, there may be a need of development to show the real life sustainable projects and the position of HR of the organization for preserving it. The study aims to implement a clear understanding of the green HRM practices and its effect on environmental sustainability alongside actual organisation examples.

#### **1.1 Environmental Sustainability**

Environmental sustainability is a responsive interplay with the environment so that it will conserve herbal resources through growing alternative resources of strength and lowering pollutants or any negative effect for the long tern environmental first-rate. Nature has a tremendous rejuvenation ability to care for itself while it's miles left alone. however, when man or women take an entry and use herbal assets, things begin to trade. Human moves expend natural resources and growth pollutants which in flip creates ecological imbalances. Environmental sustainability is important for the sustainability of man or women. As a part and benefactor of the surroundings, agencies ought to be greater alert whilst the use of new trephotogy to minimize environmental destruction and attempt to make merchandise that creates much less pollutants or damage to nature. (Liu, 200; Ozen and Kusku, 2008). For

School Of Engg. & Technology Sushant University Sector 55, Gurugram

GUF



xllkogretim Online - Elementary Education Online,2021; Vol 20 (Issue 1): pp.2708-2719 http://ilkogretim-online.org doi: 10.17051/ilkonline.2021.01.304

### How Ergonomics Practices Effects on Hotel Housekeeping Employees in Star Hotels – A Review Study

**Vipin Singh**, Assistant Professor, School of Hotel Management & Tourism, Vellore Institute Of Technology, Vellore. **Dr. Amrik Singh**, Associate Professor, School of Hotel Management & Tourism, Lovely Professional university, Jalandhar –Delhi GT Road, Phagwara (Punjab).

Anshu Rawal, Assistant Professor, Vatel Hotel & Tourism Business School, Sushant University,Sec-55 Gurugram Chandana Paul, Assistant Professor ,Vatel Hotel & Tourism Business School,Sushant University,Sec-55 Gurugram

**Abstract-** The purpose of this paper is to overview the ergonomics risk factors in hotel industry. The objective is to give a basic introduction and clear definition of ergonomic. The study will include the ergonomics risk factors in relation of human and their nature of work. Based on the literature, the most significant ergonomics risk factors are awkward posture in handling job task, force and repetition of specific movement including vibration. Other ergonomics risk factor includes uncomfortable static position, contact stress of muscles and tendon and also extreme temperature condition. This study will enhance the awareness of the risk factors which may occur in the hotel industry.

#### Key Word- Ergonomics, Hotel Industry, Health and safety

#### I. INTRODUCTION -

Ergonomics is defined as the study of the design of a workplace, equipment, machine, tool, product, environment, and system which takes into consideration human being's physical, physiological, capabilities and optimizes the effectiveness and productivity of work systems while assuring the safety, health, and wellbeing of the workers (Fernandez, 1995). **Housekeeping is a physically demanding job**. Housekeepers clean and sanitize spaces for the comfort and convenience of guest. There are risks associated with hotel housekeeping that typically go unnoticed. The housekeeping staff performs tasks that can include dusting, vacuuming, pulling bed linens, making beds, cleaning bathrooms and other areas, squeezing spray bottles, and disposing of trash.

**Definitions of Ergonomics Practices** 

4		
1	A good ergonomic design not only maximizes the capabilities of workers by increasing productivity and job satisfaction, but also benefits the employer by decreasing the cost for health and absenteeism. In other words, ergonomics enables "fitting the task to the worker"	Khan et al. 2012
2	Ergonomics is concerned with well-being. The second of the two objects of the royal charter of the Chartered Institute of Ergonomics and Human Factors (CIEHF) refers to the promotion of well-being through the use of ergonomics knowledge (CIEHF 2014).	Richardson et al.2017
3	In addition to the poor physical workplace and equipment design, administrative problems, such as inadequate breaks and lack of job control by workers, as observed by Ahasan and Rabiul (2002), have most likely contributed to the physical ailments mentioned	Ahasan et al.2002

How Ergonomics Practices Effects on Hotel Housekeeping Employees in Star Hotels A Review Study

## Role of a foreign language in influencing the outlook, behaviour, culture, and the attitude of people in general

Mr. Kulmohan Singh (Adjunct Faculty) Mr. Sunil Kumar (Assistant Professor) Sushant University Gurugram-122003

#### Abstract

In the current times, while incessant advancements are being made and attempts are being undertaken towards the promotion of economic and cross-cultural ties worldwide, the various sectors, more prominently the hospitality sector is preparing itself to counter the challenges of a global society. It is at such times that the acquisition of a foreign language acts as a tool to efficiently bring together culturally diverse people and eventually works towards personal growth and enhancement of the economy.

Learning a foreign language or trying to communicate in it is an integral part of liberal education of the modern times that encompasses international and multicultural growth. The importance of a speaking a foreign language is being recognised for the integration of new culture and the acquisition of interactive skills for future implementation and professional growth, further leading one to enhance the required skills in order to become culturally, professionally and personally competent.

This study intends to describe the way in which language acquisition can impact personal behaviour and can play a pivotal role in the cultural development and learning among a sample of French teachers, the general francophone community, schoolchildren and the students who have been studying hospitality management and therefore, French with me.

The study analyses behavioural change, attitude, self-esteem, anxiety and even discomfort, cross-cultural learning, and interactional skills on various parameters. This study acts as a viable strategy for personal growth and cultural learning. Improvements (amongst people who gained proficiency in the language) were observed as having gained confidence, enhanced communication skills, and personality development over the course of a detailed survey.

School Of Engg, & Technology Keywords: Foreign language; culture; attitude; behaviour; language ocquisition; French