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A REVIEW ON COMPARATIVE ANALYSIS OF DIFFERENT STEEL TRUSS TYPE RAILWAY BRIDGE CONSIDERING RAILWAY LOADINGS

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ABSTRACT

Beam bridges are the simplest and oldest type of bridge in use today, and are a popular type. A truss bridge is a bridge whose load-bearing superstructure is composed of a truss. Various types of different design of truss structure are constructed in bridges depending upon the type of bridge and volume of vehicles passing through it. This research work comprises of design and analysis of different types of bridge structure for railway systems. The different trusses are made from the steel material and a comparative study is done based on the results. For the study four type of truss design is taken into consideration such as rectangular truss, X-type, V-type, and K-type truss. The results are compared based on support reaction, displacement, shear force and torsion. Both maximum and minimum values for all the respective cases have been depicted in the work including cost analysis.

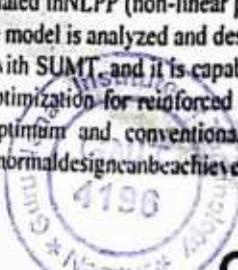
Keywords—Truss Bridge, Railway Bridge, Indian Railway Code, Truss.

INTRODUCTION

In India, Economic progress mainly depends on the railway and is considered as the life line of the nation. India has the second largest rail network in the world, transporting over four billion people annually and the total figure of existing railway bridges are approx. 1,20,000. Out of these, 731 are long span open girders, 19014 are rolled steel joist or plate girders. So it can be seen that more than 20% are Steel girder bridges. Due to continuous movement of trains, the members and their connections are subjected to repeated loadings due to which the stiffness of the joint gets reduced, which are more prone to fatigue damage. The conventional static, dynamic or stability analysis of Steel Trusses bridges assumes that their members are connected at rigid or hinged joints. However in reality Steel Trusses are reinforced at their joints by Gusset plates, which possess rotational flexibility. The presence of this gusset plates has an appreciable effect on the stiffness of the members of the bridge and consequently on its behavior to Static and Dynamic loading. However, the behavior of connections is neither rigid nor pinned. Structures having such flexible joints in which joint flexibility becomes important are called as semi-rigid frame members. In fatigue assessment of the bridge components the joints are assumed to be rigid as per RDSO, where joint flexibility is neglected which may affect the dynamic behavior of the bridge component, consequently its fatigue life. Therefore it is necessary to evaluate the bridge components for semi-rigid connections.

LITERATURE REVIEW

Rajesh F. Kale, N.G. Gore, P.J. Salunke (January 2014) Studied the cost efficient approach of reinforce cement concrete T-beam girder. His main objective function was to reduce the total cost in the design process of the bridge system considering the cost of materials. The cost of each structural components such as material, manpower, cost for reinforcement, concrete and formwork. For each and every bridge its girder length, width of bridge, deck slab depth, width of web of girder and girder depth are considered for the cost minimization of the bridge system, the structure is modeled and analyzed using the direct design methods. Cost efficient problem is formulated in NLPP (non-linear programming problem) by Sequential Unconstrained Minimization Technique. The model is analyzed and designed for an optimization purpose by using Mathematical lab (Matlab) Software with SUMT, and it is capable of indicating precisely with high probability of minimum design variables. Optimization for reinforced cement concrete T-beam girder system is illustrated and the results of the optimum and conventional design procedures are compared. Observed that significant savings in cost over the normal design can be achieved by the optimization.



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AN EXPERIMENTAL STUDY OF THE CONCRETE USING POLYMER AND METAKAOLIN AS ADDITIVES

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ABSTRACT

Environmental friendly and high performance concrete is very important for the applications in sewage and water treatment industry. Using mineral additives such as fly ash and silica fume has been proven an effective approach to improve concrete properties. This paper reports a study of the effect of using both polymer and metakaolin additives together on the mechanical and durability properties of concrete. Different proportion of the combination using two different polymers, metakaolin and recycled fiber reinforcement have been studied. The effects of water to cement ratio and the curing methods have also been compared. At last an optimized mixture and curing method has been suggested.

INTRODUCTION

Using mineral additives such as fly ash and silica fume has been proven an effective approach to improve concrete properties. With the increasing of the environmental concern, in recent years [Srinivasu, et al. 2014], the use of Metakaolin (MK) as an optional additive has also raised more and more interests [Aiswarya et al 2013]. As a supplementary cementitious material MK has the expected pozzolanic nature activated by tri-calcium silicate (C3S) and tri-calcium aluminate (C3A) [Jean 1994]. When used as a partial replacement for cement, MK reacts with Portlandite ($\text{Ca}(\text{OH})_2$) to generate additional CSH gel which results in the increase of strength. Previous work by Khatib et al. [2012] showed that the 20% replacement of cement using MK had resulted in a substantial 50% increase of the compressive strength of mortar. However, with over 30% replacement of cement by MK, the compressive strength started to decrease. It has also been shown that the sample containing 10% MK replacement displayed the best performance in terms of ultrasonic test. Joy [2005] compared the effects of the use of two different types of MK on concrete workability and setting time. It was found that MK caused a considerable reduction in workability, and reduced the setting time of cement paste by 35-50%. The study also showed that the use of MK had increased the compressive strength, splitting tensile strength, flexural strength, and the elastic modulus of concrete samples. Erhan et al. [2012] compared the effects of the use of silica fume and MK on the water sorptivity of concrete. It was observed that the water sorptivity decreased more using MK additive than using silica fume.

LITERATURE REVIEW

M. Narmatha, Dr.T.Felixkala et al., 2017 Cement concrete is the most extensively used construction material. Maintenance and repair of concrete structures is a growing problem involving significant expenditure. As a result carried out worldwide, it has been made possible to process the material to satisfy more stringent performance requirements, especially long-term durability. HPC is the latest development in concrete. It has become very popular and is being used in many prestigious projects such as Nuclear power projects, flyovers, multi-storeyed buildings. When using HPC, the addition of supplementary materials in cement has dramatically increased along with the development of concrete industry, due to the consideration of cost saving, energy saving, environmental concerns both in terms of damage caused by the extraction of raw materials and carbon dioxide emission during cement manufacture have brought pressures to reduce cement consumption. Metakaolin looks to be a promising supplementary cementitious material for high performance concrete. Properties of concrete with metakaolin is mostly preferred additives in high performance concrete. A possible lower cost, due to large availability in our country itself may be advantages to metakaolin usage in HPC. The substitution proportion of metakaolin to be used is 5%, 10%, 15%, 20% by the weight of cement. To make this cubes and cylinders to determine the strength and durability of concrete of it. The results indicate that the replacing mix upto till Principal



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REVIEW ON GENERATION OF PYROLYSED OIL

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ABSTRACT

The rate of profitable growth is unsustainable without use of reactionary energy like raw canvas, feasts, or coal. There are numerous druthers natural energy similar as biomass, hydro-power, and air energy. Waste operation strategy is another important point. Development have increases the product of all kinds of investments, which laterally induce waste. Plastic is a material which is extensively use due to rigidity and fairly low cost. Some 450 million tons of plastic were produced in 2016, representing a 8 percent increase over 2014.

Key words- Waste plastic, Pyrolysed Oil.

INTRODUCTION

Due to the reactionary energy extremity in once decade, humanity has to concentrate on developing the alternate energy sources similar as biomass, hydropower, geothermal energy, wind energy, solar energy, and nuclear energy. The developing of indispensable- energy technologies are delved to deliver the relief of reactionary energy. The focused technologies are bio-ethanol, bio-diesel lipid deduced biofuel, waste canvas recycling, pyrolysis, gasification, dimethyl ether, and biogas. On the other hand, applicable waste operation strategy is another important aspect of sustainable development since waste problem is concerned in every megacity. The waste to energy technology is delved to reuse the implicit accoutrements in waste which are plastic, biomass and rubber tire to be canvas. Waste plastic and waste tire are delved in this exploration as they're the available technology.

The main objectives of this project are:

- To establish the base for the development and perpetration of waste plastics recovering with the operation of environmentally sound technologies (EST) to promote resource conservation and green house feasts (GHG).
- To raise mindfulness in developing countries like INDIA on plastic waste and its possible exercise for conversion into diesel or energy, this could be generated and retailed at cheaper rates compared to that of the available diesel or canvas in the request.
- To reduce the reliance on gulf countries for fossil energies, thereby contributing to the Profitable growth of the country.

METHODOLOGY

1. Identification of waste plastics like PE/ PP/ PS/ LDPE/ HDPE

2. Subjugating the waste plastic for pyrolysis process.

3. Condensation of the gas to gain raw energy.
4. Conversion of raw energy into its pure form (diesel etc) by the process of distillation.

Collection & Identification Of Waste Plastic:



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Assessment of Quality of Water Bodies Surrounding Bhandewadi Landfill Site, Nagpur city

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Abstract - Explosive population growth and steady pursuit of economic development and development over the past decades Municipal solid waste generation in Nagpur. Backfilling is the most popular method Export of municipal solid waste. Landfill leachate is a major threat Due to high concentrations of toxic substances it enters local aquifers. This study was directed assessing the quality of groundwater resources serving nearby communities from the dump of Bhandewadi in the city of Nagpur. Taking and analyzing groundwater samples Characteristic. The results of the analysis showed measurable impacts of landfills on groundwater qualitative. Increased Na+ and NO₃ levels, Cl and heavy metals such as Mn and Fe have been found Measurable levels in groundwater. Ion Ratio Plot Shows Silicate Weathering And anthropogenic activity is the dominant factor determining the main ionic composition in the study area. Na-Cl types of water are associated with high levels of nitrate contamination. Most of The sample is not suitable for domestic use and is significantly increased compared to drinking water standard. For effective study Impact of landfills on the environment and human health. Adequate buffer zone between the landfill and adjacent property lines must be preserved prior to the placement of the new site polygon.

Key words- water quality index, landfill impact, pollution, leachate effect.

1. INTRODUCTION

Rapid population growth, uncontrollable urbanization and industrialization, inadequate hygiene scenarios, and runaway waste disposal are responsible for the major world-class degradation of the arena's surface groundwater, especially in emerging economies. .. Urbanization India prices are fast. It increased from 30.93% in 2010 to 34.93% in 2022. Unregulated Growth For the past years, mainly in urban areas, there was no major infrastructure service for professional collection, transportation, disposal and disposal of household waste Pollution risk and suitability gain.

Most cities in India use urban waste treatment technology. It's fragmented and unsystematic.

Site selection is usually primarily geographic as an alternative geological and hydrogeological consideration.

The logistics phrase of is high near the site that provides waste. Therefore, it is not uncommon for waste disposal sites to be located internally. It is a common obstacle and is surrounded by residential areas. Groundwater chemistry around landfills is controlled by both natural geochemical processes such as silicate weathering and anthropogenic activities (Deepali marghade et al 2010) [1]. Surface water quality near landfills contains more ions and cations than groundwater samples. During the rainy season, percolative waste mixes with rainfall and flows into runoff, contaminating nearby surface waters (Otwoghere asuma et al 2013) [2]. The LWPI can be used to assess water quality variability around landfills. LWPI is a very reliable and useful and effective way to evaluate and evaluate and communicate information about water quality. This is used to estimate the degree of water pollution near landfill and to assess the volatility of different results and compares the results of different places and periods (Isabela A. Talala et al. 2014) [3]. Solid Waste Management The incorrect method and leaching collection system and inappropriate effect of depression or disposition have a great impact on the quality of surface and groundwater. The groundwater cannot accept for drinking water practices and build a sanitary dump properly designed to limit groundwater contamination (ThaAYalnayaki D et al 2019) [4]. The lack of appropriate solid waste management system can be considered a major cause of water quality (Neeli vasavi et al 2020) [5]. The distance from the water source to the landfill does not significantly affect the level of other physicochemical properties (Kofi owusu ansah amano et al 2021) [6].

1.1 Location and Climate

The Bhandewadi landfill (range 21°08' and 21°09' N and longitudes 79°07' and 79°08' E), this is the point of interest of the modern-day observe is located in south east nook of the metropolis. Nagpur metropolis generates approximately 900-1000 MT of waste in line with day; 350-four hundred grams in line with capita in line with day. About 30% of this waste is natural compostable material. The closing 70% includes paper (11.9%); rubber,- leather-based and synthetics (3.02%); glass (0.98%); metals (0.33%) and different inert materials (53%). The landfill accepts officially, non-unsafe strong wastes of domestic, commercial, industrial and institutional origins, however in exercise all



Low Cost Filtration For Grey water With Constructed Wetland

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Abstract - *Filthy water emerging from the washbasin, restrooms, shower, and clothes washer with the exception of a latrine known as "dim water." This treated dark water can be utilized in lawn gardens. Developed wetlands are progressively used to treat wastewater. This study was directed with the point of tracking down an answer for the treatment of dim water. The treatment process is minimal expense, straight forward and comprehensive. Dim water was sanitized by developed wetlands. The developed wetlands address one more area of disinfection since they are similarly powerful in eliminating contamination. The developed wetland has a filtration cycle to eliminate contaminations from wastewater. In this program we will oversee dim water for example from the wash bowl, restroom and so forth.*

Key Words: Greywater, Constructed wetlands, low cost filtration.

1. INTRODUCTION

In this specific venture we are learning about the Low expense Filtration for Greywater with Constructed Wetland. The Natural wastewater treatment frameworks are straightforward, minimal expense strategies that use the physical, compound and organic cycles that happen in the regular habitat between water, soil, plants, microorganisms and the environment. Normal for dark water is that it frequently contains high convergences of effectively degradable natural material, for example fat, oil and other natural substances from cooking, build-ups from cleanser and cleansers. The persistent decrease in disinfection inclusion could be ascribed to the roaring populace development, quick urbanization and absence of interest in the area. Present day, wastewater treatment innovations have become progressively perplexing with the prerequisite of generally complex and costly plants.

Vegetation place and significant job in squander water treatment wetland. Plants give a substrate to microorganisms, which are the main processors of waste water impurities. Plants likewise gives microorganisms a wellspring of carbon. Plants have extra site-explicit worth by giving living space to natural life and making waste water treatment framework tastefully satisfying. Wetland types of

all development structures have been utilized in treatment wetlands. Built wetland are an endorsed squander water treatment framework and have been utilized effectively overall to treat different sorts of waste water including storm water, modern, home-grown, agrarian, mine seepage and landfill leachate. Groundwater is generally utilized as savouring reason country region. Squander water treatment is a huge universe, and is produce in various condition with various extent. The issue of dim water the executives which is characterize as all wellsprings of home-grown waste water barring latrine squander water is acquiring and more significance, particularly in non-industrial nations where ill-advised administration is one of most significant reasons for natural contamination and deadly sicknesses. Appropriate dim water the board, containing assortment, treatment and reuse or removal, forestalls person in touch with it and cut off points microorganism move. A sound treatment likewise emphatically affects the close by water bodies, since it restricts the contribution of supplements and in this way eutrophication. Dim water the executives isn't just a free condition for spotless and sound day to day environments, it likewise has an extraordinary potential for reuse. Treated dark water in a decentralized manner is reused for an entire scope of use all over the planet; in emerging nations, the reuse of treated dim water for water system designs is generally normal. The point of this work was to give an outline on the writing in the field of dim water, treatment on family level in emerging nations. This research paper conducted a detailed study of grey water and where grey water is produced. Grey water comes from the trees of the bathroom sinks and kitchen sinks, Narges Shamabadi, Mahamood Farahani et. al. (2015) [1]. The university has recommended the use of a drip filter with suspended plastic media. In this flow filter the waste particles are removed from the system with a 1cm mesh screen and water is evaporated into a sealed septic tank and the result is pumped into a flow filter consisting of plastic and mud, Hazart-e-masoumeh [2]. In this research paper they concluded that the construction of wetlands is an effective treatment for gray water, K. Soundaranayaki (2017) [3]. In this research paper first purification of water is carried out, in this paper the gray water is treated using a root system with a fixed root in the wetlands column, Mr. Sarang K. Dighe, Prof. S.R. Korke (2018) [4]. This paper discusses the need for gray water, the features and technologies of gray



The Use of Recycled Concrete Aggregate in Structural Concrete

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Abstract - Properties Of The Reused Totals And The Appropriateness Of The Equivalent In Primary Cement Were Contemplated And Contrasted Them And Normal Totals. The Outcomes Showed That The Molecule Size Appropriation Of Reused Totals Is Viable With Those Of Normal Totals. The Reused Totals Had Rough And Effect Upsides Of 48.7% And 27.10%, Separately While Those Of The Normal Totals Were 29.5% And 11.45, Individually. Mass Thickness Of Reused Totals Was 1065 Kg/M3 With Contrasted With 1296 Kg/M3 Of Natural Totals And The Water Assimilation Was 2.82% With Contrasted With 1.22 Of Natural Totals. The Blend Configuration Proposed For Concrete Was Grade 30. Properties Of Cement Made Under Three Blending Situations Of Regular Total To Reuse Total Extents, For Example, Half - Half, 25%-75%, And 0%-100 Percent Were Contrasted And Those Of 100 Percent Normal Totals. With Expanding Level Of Reused Total Substance, Compressive Strength, Flexural Strength, Pliable Parting Strength And Usefulness Were Fundamentally Diminished. As Per The Outcomes, Grade 30 Substantial Properties Could Be Accomplished With Blend Extents Of Half Normal Total And Half Reused Total, Without Essentially Influencing The Substantial Properties, Demonstrating A Half Saving Of Regular Totals Hence Lessening Ecological Effects And Improving Supportability.

Key Words Mix design, Compressive strength, Tensile parting strength, Flexural strength

1. INTRODUCTION

The advancement of concrete, which was basic for the structure utilization of binds, made a steady and finally durable interest for improvement turns. Improvement aggregates, or basically known as "sums", in a wide extent of coarse particulate material used being developed. The

M. Etcheberria & A. R. Marí & E. Vázquez (2007). Substantial rubble could be changed into valuable reused total utilized in substantial creation with properties reasonable for most primary substantial applications in Egypt. Hardly any properties of RCA, for example, ingestion and scraped area opposition were lower than those expected by Egyptian substantial code of training despite the fact that it agrees with other global codes. RAC with substitution proportion up to 100 percent of NA and 400 kg/m³ concrete substance delivered underlying cement with 33 MPa trademark strength which is reasonable for most primary substantial applications in Egypt. Ashraf M. Wagih et al (2013).

The impacts of RCA use on substantial material properties, and the enormous scope effect of RCA on primary individuals. Total properties are most impacted by the leftover stuck mortar on RCA. Along these lines, RCA is less thick, more permeable, and has a higher water ingestion limit than NA. While RCA and NA have comparable degree, RCA particles are more adjusted in shape and have more fines severed in LA, scraped spot and squashing tests. Supplanting NA in concrete with RCA diminishes the compressive strength, however yields same or unrivaled parting elasticity. Katrina McNeil et al (2013). Appropriately different substantial waste might be utilized in the development of primary cement. Their size and content can have various results on short and long haul mechanical properties, but an incorporated examination ready to consider microstructure boundaries, too as perceptible elements, can be a helpful device for planning improved blends, in with exhibitions comparable to those generally displayed when regular totals are utilized. Also, the current examination demonstrated the plausibility of presenting fine and coarse reused totals together inside another substantial without adversely influencing the mechanical exhibitions, both in the short and long haul. S.



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"Covid - 19 Tracker"

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Abstract

Everyone knows COVID-19. One of the most important moments for people and countries fighting this corona virus. So, this is our little show awareness program verified / effective / recovering / death cases of all countries in the world through our PWA (Angular support) app where data is updated every 15-30 minutes. So, this is our Little TRACKER for the COVID-19 Program

Introduction:

Today, this epidemic has made everyone's life miserable. Everyone is trying to earn a living and to keep living. In this regard, we are trying to develop a tracker using technology where Angular 10 becomes a useful tool. with this we can track active, recovering, deaths worldwide.

Here is an application used to track patient information geographically. Using this app, we will track geographically intelligent patient information on a specific day at a specific time. In addition, we will try to show a graph, where the user can click on any country and get the patient details of that country. We will also provide a list with all the countries' names as a drop-down here. Additionally, any user can select any location and easily access location information.

Conclusions:

Thus, the above information explains how to design a simple Covid-19 tracker using Angular 10. It makes sense of how the disease has spread worldwide. The data provides a summary of data available in parts of the world. To learn more about technological advances in tracking the disease.



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HEALTH HIS

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Abstract:-

Suppose one persons fell from bike because of wet slippery road and Bike hits him very hardly so he need treatment as fast as possible. Then people drops him at nearest hospital to treat that patient by doctor. Doctors always need to check their diabetes, Blood Pressure and many things like this. And this things take more time to treat the patient. So "Health His" website provides patient history details about his Blood Pressure/ Sugar level and many things. So doctors can proceed to main step directly without waste time. So patient's life can be save. Taking a comprehensive health history is a core competency of the advanced nursing role. The purpose of the health history is to source important and intimate knowledge about the patient and allow the nurse and patient to establish a therapeutic relationship. Reflective practice, a core value of nursing in Ireland, means learning from experience. This recorded comprehensive health history simulation, coupled with reflection, provided insight into an advanced nurse practitioner's history-taking skills, thereby enhancing clinical practice

Keywords:- HTML, CSS AND BOOTSTRAP for front end And SQL , PHP for backend, Health (Health Records), Health, History, Health Backup.

Introduction

Health is an important factor for human's life. Humans always worried about their health. "Health is real wealth" we all know that .our group is introducing "The great evolution about Health industry". A patient's medical history can identify the chances of their probability of having lifestyle diseases like diabetes, heart attacks etc. Which are the main cause of serious health conditions. It helps doctors and care giver's to minutely assess and give the best of medical facilities to the patient.

Your medical history includes both your personal health history and your family health history[4]. Your personal health history has details about any health problems you've ever had. A family health history has details about health problems your blood relatives have had during their lifetimes[4]. This information gives your doctor all kinds of important clues about what's going on with your health, because many diseases run in families[4]. The history also tells your doctor what health issues you may be at risk for in the future. If your doctor learns, for example, that both of your parents have heart disease, they may focus on your heart health when you're much younger than other patients who don't have a family history of heart disease



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ANALYSIS AND PERFORMANCE EVALUATION OF RECTANGULAR FIN HEAT SINK

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Abstract. Thermoelectric cooling, also called "The Peltier Effect" is a solid-state method of heat transfer through dissimilar semiconductor materials Thermoelectric coolers TEC are solid state heat pumps used in applications where temperature stabilization, temperature cycling, or cooling below ambient are required. The thermoelectric coolers need effective heat sinks in order to dissipate the hot side heat from semiconductor chip to the atmosphere. Normally a fan is used above the sink to enhance the heat dissipation. The paper discusses the development and analysis of a sink with rectangular fins that have a three layers and concentric triangular layout of fins. The surface area enhancement and cross flow heat dissipation is planned though use of through hole in fins in the direction of air flow. The work is to include determination of heat load for application specific, selection of sink, design, and fabrication of sink to surface area and a number of fins, steady-state thermal analysis using workbench 16.0. Test rig will be fabricated and testing will be done by varying flow rate of air. The heat transfer rate, heat transfer coefficient will be determined for individual cases and then later compared. The geometrical layout and thermal analysis of these fins is discussed in the paper.

Keywords : Peltier Effect, Thermo electric cooler, Rectangular fins, Concentric Triangular layout

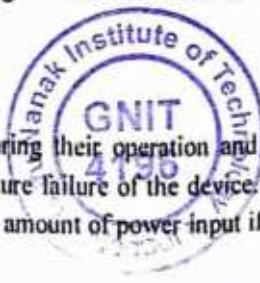
Introduction

Heat sinks are devices that enhance heat dissipation from a hot surface, usually the case of a heat generating component, to a cooler ambient, usually air. For the following discussions, air is assumed to be the cooling fluid. In most situations, heat transfer across the interface between the solid surface and the coolant air is the lead efficient within the system, and the solid-air interface represents the greatest barrier for heat dissipation. A heat sink lowers this barrier mainly by increasing the surface area that is in direct contact with the coolant. This allows more heat to be dissipated and/or lowers the device operating temperature. The primary purpose of a heat sink is to maintain the device temperature below the maximum allowable temperature specified by the device manufacturer. Thermoelectric cooling, also called "The Peltier Effect" is a solid-state method of heat transfer through dissimilar semiconductor materials Thermoelectric coolers TEC are solid state heat pumps used in applications where temperature stabilization, temperature cycling, or cooling below ambient are required. There are many products using thermoelectric coolers, including CCD cameras (charge coupled device), laser diodes, and a new field of thermoelectric coolers for refrigeration effect.

The present study is to be conducted for application of heat sink in thermoelectric can cooler, where in the device shall be used to cool beverage cans. The size of the device is an constraint due to the fact that the device is to be used as a portable device hence has to be compact. Thus the study is focused on design development and testing of heat sink with rectangular fins that have a three layer a concentric triangular layout of fins.

Overview

Electronic devices like relay circuits generate excess heat during their operation and thus require thermal management to improve reliability and prevent premature failure of the device. The amount of heat generated from electronic devices is almost equal to the amount of power input if there are no



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DESIGN AND FABRICATION OF WHEEL MOBILE HYDRAULIC LADDER WITH ADJUSTABLE HEIGHT

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Abstract. This project focuses in design, fabrication of the mechanical part of machine and the system of the manually operated hydraulic ladder. To achieve this project objective, this hydraulic ladder body structure and mechanical system needs to concern some other criteria such as strength, safety and ergonomic design. This project flow must start from design, analysis, and lastly fabrication process. Before develop the hydraulic ladder, it must compare with other product in market. With everlasting development of science and technology, more and more new technologies are applied to lifting appliance design. In this paper scissor ladder powered by hydraulics has been introduced. The main aim to design and analysis and construct multi-utility equipment for workers so that can carry their activities efficiently. The ladder should compact and cost effective. We expect that our ladder carry load around 150-200kg with factor of safety equal to 2.5 and lifting to height of around 7 to 8 ft. It is used for school, colleges, malls, hospital and small scale industries. The beginning aim of our project is to make marketable product in the market. To get maximum possible acceptance in the market will be our objective.

Keywords –Scissor Ladder, Hydraulic Cylinder, Multifunctional, compact, cost effective.

Introduction

This device hydraulic ladder has been developed to today itself needs of small and medium cable industries and home use also , who are normally man powered with very minimum of skilled labours . In most of the industries and place it use to go to the highest for work and the ladder can move from one place to another by not lifting it . In order to avoid all such disadvantages. This hydraulic ladder has been design in such a way that it can be used for climbing man easily because it is mounted on the trolley. The operation is made simple that even unskilled labour can handled, by just demonstrating the working of the hydraulic ladder once. The hydraulic pump and cylinder arrangement is used to lift the labour from ground to height. This hydraulic ladder is hand operated one. It is movable one from one place to other place easily by proper wheel arrangement. Material handling is specialized activity for modern manufacturing concern. It has been estimated that about 60-70 % of the cost production is spent in material handling activities.

For safety at a variety of height work, whether in industry or at home, ladders need to be designed to facilitate and increase worker safety? That is the one of the reasons why it is necessary to modernize the construction because of the ever-increasing demands for safety. It is therefore necessary to know their physical, dynamic and kinematic properties when designing ladders. The aim of the paper is to dynamically analyze the hydraulically lifted mounting ladder, which is necessary for the ladder sizing in order to achieve the best required properties.

Literature survey

[1] P. FRANKOVSKÝ have investigated a dynamic analysis of a hydraulically lifted ladder by means of analytical and numerical calculations. The solutions used in the dynamic analysis of mechanical systems were used in the analytical solution. A numerical model was created to verify the achieved results of the solved mechanical system with simulation of its motion.



D. Shukla
Principal
Guru Nanak Institute of
Technology

Study and Fabrication of Flue Gas Desulphurization Unit

Mr.Pawan Ghangre¹ Prof. Ishaan Lade² Mr.Kabiraj Hadge³ Miss.Manjusha Khairkar⁴

Miss.Shruti Payak⁵

^{1,3,4,5}Student ²Assistant Professor

^{1,2,3}Department of Mechanical Engineering

^{1,2,3}Guru Nanak Institute of Technology, Nagpur, Maharashtra, India

Abstract— Fossil fuels used in thermal power plants contain significant amounts of sulphur. At burning, about 95% of the sulfur is converted to sulfur dioxide (SO₂), which reacts with the particles of water in the atmosphere, forming acid rain under normal conditions of temperature and pressure. Sulphur dioxide, through its annual emissions, is the main gas pollutant, which is why over the last 80 years has been a concern for the development and standardization of desulphurization processes. The flue gas desulphurization can be done both by wet or dry process. The most widespread process is wet desulphurization of limestone or lime, accounting for about 85% of all desulphurization processes. The paper presents the current state of the desulphurization technologies in the world, their advantages and disadvantages, as well as the future trends in this field.

Keywords: Limestone, Flue Gas Desulfurization, Sulfur Dioxide, FGD - Gypsum, Fly Ash

I. INTRODUCTION

The flue gas desulphurization (FGD) process utilizes a set of technologies to remove sulphur dioxide (SO₂) from the flue gases emitted by coal-fired power plants. FGD systems were developed as a response to the exhaust flue gases from fossil fuel-burning plants, principally coal burning, that causes harm to both an environment and human health as well. This SO₂ can be removed from flue gases by a variety of methods. For a typical FGD predominantly employs two methods of filtering the emission.

- 1) Dry Scrubbing.
- 2) Wet Scrubbing.

II. LITERATURE SURVEY

Sr. No.	Title of the Paper	Authors	Name of Journal ISSN No./Volume Number/Year	Proposed Concept and Details
1.	The state of the Art	R. K. Shrivastav	Journal of the Air and Waste management Association 27.DEC.2011	
2.	World Congress on Chemistry And Catalysis	Claire Smith	Journal of Industrial and Environmental Chemistry	
3.	Bio-fuels and Bio-energy	Ammalik Khan Mohammed	Key drivers and future potential	
4.	Bio-polymers	Takahiro Nakachi	Archives in Chemical research 2016	
5.	World Research	Razvan Liucu and Sorin Jinga	Study on current state and future trends of	
6.	World Research	Ming Kong	Separating sulfite from flue gas desulfurization Gypsum with an acidic acid solution	
7.	Technologies News (Energy Words)	Goutamika S. and Jawahar P.	Cost and benefits of installing flue gas desulfurization units at Coal-fired power plants in India 2015	

8.	Environmental Protection	Papa Jawahar , Kabir Mahdi, Sarah Goutamika	International Re-construction and development 2019
9.	Energy Technology and Policy	Taylor and Francis Group	Review of design, Operating and financial considerations in FGD system MAY 2015

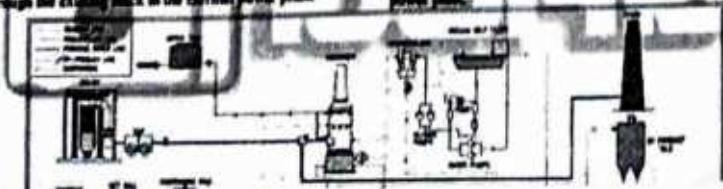
III. METHODOLOGY

Raw flue gases are directed through flue gas ducts to the absorber. Fresh process water and a fresh limestone suspension are also delivered to the absorber. Fresh process water can be supplied from a nearby river or lake. Furthermore, seawater, [9], is suitable for the wet desulphurization process because it contains a high amount of chlorides that improve the effect of desulphurization. The limestone suspension must be prepared in advance in the limestone preparation plant, which consists of a delivery bunker, a day site for limestone, and wet ball mills with corresponding tanks. Limestone is crushed in the mills, particles of limestone are separated in a hydro cyclone, and suitable sized particles of limestone are passed for further suspension preparation in tanks. The suspension is delivered to the absorber from these tanks.

All chemical reactions occur in the absorber, which consists of the zones that are described in chapter 3.4 in detail. After a suitable amount of time of flue gas retention in the absorber, they exit cleaned of the SO₂ component. They enter the atmosphere through the wet stack in the absorber or through the existing stack in the thermal power plant.

IV. WORKING PRINCIPLE

Raw flue gases are directed through flue gas ducts to the absorber. Fresh process water and a fresh limestone suspension are also delivered to the absorber. Fresh process water can be supplied from a nearby river or lake. Furthermore, seawater, [9], is suitable for the wet desulphurization process because it contains a high amount of chlorides that improve the effect of desulphurization. The limestone suspension must be prepared in advance in the limestone preparation plant, which consists of a delivery bunker, a day site for limestone, and wet ball mills with corresponding tanks. Limestone is crushed in the mills, particles of limestone are separated in a hydro cyclone, and suitable sized particles of limestone are passed for further suspension preparation in tanks. The suspension is delivered to the absorber from these tanks. All chemical reactions occur in the absorber, which consists of the zones that are described in chapter 3.4 in detail. After a suitable amount of time of flue gas retention in the absorber, they exit cleaned of the SO₂ component. They enter the atmosphere through the wet stack in the absorber or through the existing stack in the thermal power plant.



ME27_ICSC12022_3638

AN INNOVATIVE MODEL TO EVALUATE AUTOMATIC WATER LEAK AND PIPE BURST DETECTION SYSTEM

Praful Solanki¹, Himanshu Chelani², Suryakant Tembhkar³, Nikhil Tembhkar⁴, Rohit Khobragade⁵, Nikhil Tembhkar⁶, Paritosh Dutta⁷, Prof. Suyog Bhajankar⁸

1,2,3,4,5,6,& 7 (Students, GNIT, Department of Mechanical Engineering, Nagpur University, Nagpur, India), 8 (Assistant Professor GNIT, Department of Mechanical Engineering, Nagpur University, Nagpur, India).

Abstract. The water supply shortage has increased in recent years due to overpopulation, climate change and obsolete water facilities, where deteriorated pipes cause most of the water leaks. The problem is not the size of the leak, but the time it takes to detect it. The system consists of a water sensor installed by a water reservoir of interest, a microprocessor to interpret the data and evaluate. The design of a water level sensor device that can detect and control the level of water in a certain water tank, the system firstly senses the amount of water available in the tank by the level detector part and then adjusts the state of the water pump in accordance to the water level information. There has been wastage of water daily through the pipeline leakages due to its full water were never arrived to the taps. The aims of our proposed work are to develop a real-time prototype pipeline leakage alert system whether it is a water leak or not, an SMS alert message, and an electrical actuator to shut off the main water supply to avoid leakage.

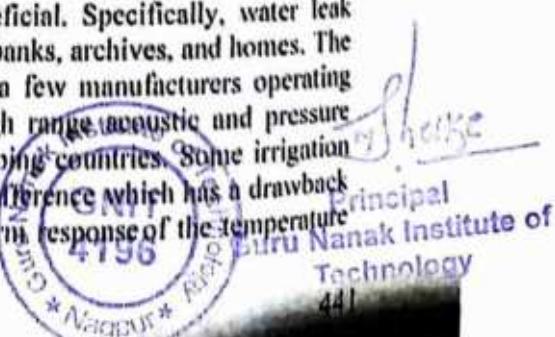
Keywords- NodeMCU, Water FlowSensor, Ultrasonic Sensor, Buzzer, IOT.

Introduction

The world is growing rapidly, so the demand of fresh water has increased causing serious problems in the field of water supply. Therefore, control of water has become a considerable issue today. With the growth of the world population, the demand of fresh water has increased causing serious problems in the field of water supply. Therefore, control of water has become a considerable issue today. Scientists, technicians, politicians, and generally, many other inhabitants of the planet become increasingly educated on the subject. In addition, the water found needs treatment for human consumption, to eliminate particles and organism harmful to health, and ultimately must distribute through pipes to homes safety. This work focuses on the issue of distribution, more specifically, on the issue of "water leaks" in residential areas. In a developing country like India, loss of water in domestic sector on account of leakage is approximately 30 to 40% of the total flow in the distribution. This leads to high risks in public health, money invested and on the valuable natural resource. India had an irrigation efficiency of ~36 percent in 1993-1994 and projected that efficiency would have to increase to 60 percent by 2050 to bring a balance in the demand and supply of water. Even those slow leaks that only because mold damage require expenses to repair. The more water spilled (or splashed) the more money the repairs cost to residents. For this reason, it's crucial to have some system installed in residences to detect water leaks. Current digital water leak detection systems can locate multiple water leaks to within 1-meter resolution over a complex network of cables running several kilometers.

Relavent works

Water leak detection is an expression more commonly used for larger, integrated systems installed in modern buildings or those containing valuable artifacts, materials or other critical assets where early notification of a potentially damaging leak proves beneficial. Specifically, water leak detection has become a necessity in data centers, trading floors, banks, archives, and homes. The water leak detection industry, small yet specialized, has only a few manufacturers operating world-wide. The existing water supply system incorporate high range acoustic and pressure detection devices are way costlier to be implemented in developing countries. Some irrigation leak detection systems use heating coils to detect the flow rate difference which has a drawback of detecting the fast change over in the system due to the uniform response of the temperature



METI_ICSCI2022_0746

DESIGN AND FABRICATION OF MANUALLY OPERATED FLOOR CLEANING MACHINE

Pradnyey Shende¹, Vaibhav Gotmare², Trambhikeshwar Game³, Shrikant Kathwate⁴

1,2,3 (Students, GNIT, Department of Mechanical Engineering, Nagpur University, Nagpur, India),

4 (Assistant Professor GNIT, Department of Mechanical Engineering, Nagpur University, Nagpur, India)

Abstract. With the advancement of technology, automated floor cleaning machines are getting more attention of researchers to make life of mankind comfortable. The concept is developing in economic countries but the reasons for non-popularity is the design complexity, cost of machines, and operational charges in terms of power tariff. In this paper, a manual floor cleaning machine is proposed. In early day a floor is clean by using a broom which is operated by human hand, in this a continuous movement of human hand is required which create fatigue and time consuming. The aim of this work is to develop and modernized process for cleaning the floor with wet and dry. This machine is capable of performing cleaning of floor in dry as well as wet condition, and it also have storage box to store a dust. This floor cleaning machine is designed by keeping the basic considerations for machine and efforts reduction, environment friendly and easy handling. The machine will work on electricity and there is no need of training to operate it. This work can be very useful to improve the life style of mankind.

Keywords : Mop, Brush, Vacuum Cleaner

Introduction

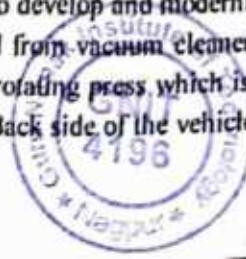
Cleaning is the essential need of the current generation. Basically in household the floor has to be cleaned regularly. This machine deals with designing and fabrication of floor cleaning machine. The main aim is that it combines operation of all three different device's operation i.e. vacuum cleaner, dryer & mop. For floor cleaning, many types of machines are available in the market are of high ranges and high weights. So, keeping the focus on weight as well as cost, they are not affordable to everyone. As many type of machines is widely used for this purpose. Hence, there is need to design and develop a floor cleaning machine which is multi use and cost effective. Considering weight criteria, machine assembly, handling the machine is very flexible. It is very simple in construction and easy to operate. Anybody can operate this machine easily. The size of the machine is also portable, so we can transfer from one place to other place very easily. This machine is applicable for various floor cleaning activities. Hence there is a need of bringing revolution in the area of science and technologies, which could help easily in repetitive tasks which we perform daily. It also giving consideration to the intensity of labor required and improving qualities to its optimum level.

A manually operated floor cleaning is developed with major list of objectives:-

1. To achieve simultaneous dry and wet cleaning in a single run.
2. Lower Maintenance Cost and Time.
3. Required less cleaning time.
4. Clean more space in less time.

Literature Review

Himani Patel in her research, she works on wireless multipurpose floor cleaning machine. She focused on the problems of long wires so to overcome this problem she use battery system which can be rechargeable when electricity is available and work as required.[1] Arjun V Murali et al. in their research, they work on floor cleaning machine. Their aim to develop and modernized process for cleaning the floor with wet and dry. At first dust is collected from vacuum cleaner. After that Water is sprayed from water tank and floor cleaning is done by rotating press which is coupled to the DC motor. Fan is used to dry the water which is fitted to the Back side of the vehicle.[2] Mr. S.



DATE: 20/07/21

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. ANKITA BHIMESHWAR DHOTE** a student of BE, Guru Nanak Institute of Technology, Nagpur has undergone her Internship with us.

During the internship she worked on different modules of company projects and demonstrated good skills in AutoCad2020

She was diligent and enthusiastic with zeal to do her best on her project. She also assisted in technical documentation and modification.

We wish her the very best for her career and future endeavours.


Director,

ASTRAL INFORMATICS (P) LTD.


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Technology**

Address: 1st Floor, Kalinga Arcade, above Titan / Idea Showroom, Shankar Nagar, Square, Nagpur,
Maharashtra, 440010
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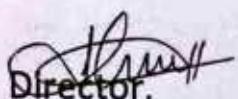
Geometric Technologies

Date: 20/07/2021

INTERNSHIP CERTIFICATE

This is to certify that Ms. Vaishnavi Satish Sahu pursuing her B.E, (CIVIL BRANCH) has successfully completed internship on SketchUp software from 5 June To 4 July 2021

We found her sincere, hardworking, and technically sound and result oriented. She worked well as part of a team during her tenure. We take this opportunity to thank her and wish her all the best for her future.



Director,
Geometrics Technology



Principal
Guru Nanak Institute of
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Nagpur Address 1
Pl. No. 201,
Samarth Chambers,
Opposite Chavan Traders,
WHC Road, Dharampeth,
Nagpur - 440010



KarunaBhavan,

Nagpur Address 2
Bajaj Nagar,
Nagpur



15 July, 2021

CERTIFICATE OF SUMMER INTERNSHIP

This is to certify that Mr. GOPAL VILAS JIBHAKATE has successfully completed summer internship program on Autodesk 3D Max under the guidance of Mr. Anil Dhoke.

The duration of this Internship was from 2 June To 3 July 2021

The internship on evaluation fulfills all the stated criteria and student's findings are his original work.

I hereby certify his her work excellent and satisfactory to the best of my knowledge.

A handwritten signature in black ink, appearing to read 'Skene'.

Founder/ Director
CADD CENTER
NAGPUR

A handwritten signature in blue ink, appearing to read 'Anil Dhoke'.

Principal
Guru Nanak Institute of
Technology



..... 98, Paradise opposite Tanishq Jewelers,
Beside of Milton mall, Near Laxmibhuvan square
Dharampeth, Nagpur, India 440010

Call For More Info : 7709274879



INSTITUTE OF ARCHITECHURAL GRAPHICS

CERTIFICATE

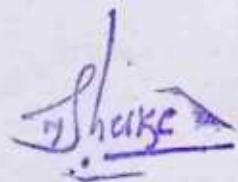
This is to certify that Mr. NIKHIL MAROTI MOHANKAR Student of B.E 4th year Civil Engineering branch from of Guru Nanak Institute of Technology Nagpur has successfully completed his Practical training of 1month.

He has acquired the basic knowledge of planning and designing using designing software.

His discipline during the training period has been found satisfactory.



Director



Principal

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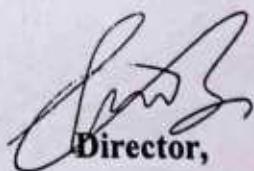
Office: Plot No. 103A, Gulmohar Apartment, Aakar Nagar, Friends Colony, Katol Road Nagpur

Certificate of Summer Internship

This to certify that Mr. SANDIP SURESH BISEN student of B.E. 4th year Civil Engineering(Branch) from Guru Nanak Institute of Technology, Nagpur, has successfully completed his Summer Internship of Designing Software Under the Guidance of Mr. Rakesh ketkar During Academic year 2021-2022 as partial fulfillment of B.E Civil Engineering Course.

General Report about training:- He is sincere towards his work and duties, Hardworking and curious towards new things.

I wish him all the best for his future.



Director,

DHVC



Principal
Guru Nanak Institute of
Technology



AA ENERGY LIMITED

Regd. Office : 101, Nikalas Tower, Central Bazar Road, Ramdaspeth, Nagpur-10 (MS)
CIN - U40100MH2005PLC157604 E-mail : admin@aaenergyltd.com • Website : www.aaenergyltd.com Tel : 0712-6638432, 2422355 Fax : 0712-2420688

8/2/2022

CERTIFICATE

This is to certify that Nageshwar Subhash Maraskolhe, Students of third Year (Mechanical Engineering) from Gurunanak Institute of Technology, Nagpur, has undergone Industrial Training at our 10 MW Bio-mass base Power Plant from date-24/01/2022 To 07/02/2022.

During his Training at our plant, he was made familiar with the working of Boiler, Turbine, Fuel Handling Plant, Ash Handling Plant, DM Plant and all other auxiliaries related to power generation.

We wish his all success for his future prospectus.

For, AA Energy Ltd.

(HR & Adm.)



Shake
Principal
Guru Nanak Institute of
Technology



Abhinav Engineering

Fact:P-20/6, Opp. Bajaj Dhatu Udyog, MIDC, Hingna
Nagpur 440 002

E-mail: abhinav_engg@yahoo.co.in

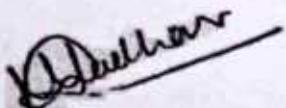
Phone: 07104-237738

Date: 20/03/2022

Certificate

This is to certify that Ms. /Mr. **Kulkarni Rudraksh Arun**, BE Mechanical from Guru Nanak Institute of Technology, Nagpur has undergone internship in our organization from **04/03/2022** To **19/03/2022** and successfully completed the project on “Pneumatic Machine and their Functioning”. During the training, we have found her/him dedicated, sincere, hardworking and reliable.

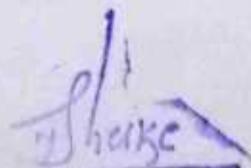
For Abhinav Engineering



Authorized Signatory



Name: Manoj M Jadhav
Designation: Proprietor
Company: Abhinav Engineering
Address: P-20/6, MIDC Hingna,
Nagpur. (Maharashtra).India
Contact. No. +918900 90903
+9194231 06069



Principal
Guru Nanak Institute of
Technology



Arun Ford

Ref.No.AMPL/WS/20220511

Date: 24/03/2022



TO WHOM IT MAY CONCERN

This is to certify that, Ms./Mr. Patle Tarendra Lalchand student of Guru Nanak Institute of Technology, has successfully completed an Internship Program of 30 days in workshop of Arun ford - Arun Motors Pvt.Ltd. Address- C-48/A, Wadi Hingna MIDC Road , Wadi , Nagpur, from date 07/03/2022 To 23/03/2022.

During the period of her/him internship program with us, she/he had been exposed to different process, was found punctual, hard working and inquisitive.

We wish her/him every success in her/him life and career.

Thanking you.

Regard



Mr.Vishwamitra Ojha

Service Manager

Mobile no:- 7028688800

E-mail Id:-service@arunford.com

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Arun Motors Pvt.Ltd.

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CIN:U74999MH2016P7C281349



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Technology





Date:-26/03/2022

CERTIFICATE

This is to certify that **Ms./Mr. Bandiya Someshwar Ramprasad** student of **Guru Nanak Institute Of Technology , Nagpur** (Branch – Mechanical Engineering) has undergone internship in our organization from **07/03/2022 To 25/03/2022**.

During this period **Ms./Mr. Bandiya Someshwar Ramprasad** has been exposed to various operational planning activities. He/she has shown keen interest in learning complete designing process.

We wish her/his all the successes in her/his future endeavor.

Warm regards.

For AEI EXPLOMOBILE PVT. LTD.

(Authorised Signatory)



Principal
Guru Nanak Institute of
Technology





JSW Steel

Coated Product Ltd

A/10/1, MIDC Industrial Area,
Kalmeshwar, 41501
Dist Nagpur, Maharashtra

Phone:(07118) 271401 06
Fax (07118) 271128
Website: www.jsw.in

24/03/2022

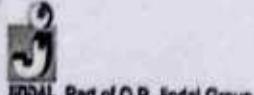
CERTIFICATE

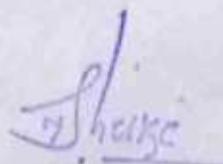
This is to certify that under mentioned student has undertaken project on "Continuous Pickling Line" in our organization and successfully completed the same

Name of the Student	:	Ms./Mr. Parshuramkar Amol Bhojraj BE (Mechanical)
Name of College	:	Guru Nanak Institute of Technology, Nagpur
Duration of Training	:	07/03/2022 To 23/03/2022

*We are happy to note the keen interest shown by the student during the training period
Best Wishes for a bright future.*

For JSW Steel Coated Products Limited




Principal
Guru Nanak Institute of
Technology

Regd. Office : JSW Centre,
Bandra Kurla Complex,
Bandra (East), Mumbai 400 051

Phone : 022 42861000,
Fax : 022 42863000.



Mahindra

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Farm Equipment Sector
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CIN NO L65990MH1945PL0004658

Regd. office :
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Mumbai 400 001 India

HR/CER/F-53
March 26,2022

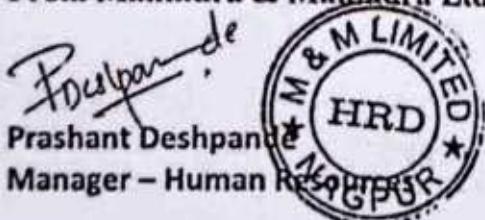
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.Chakraborty Gaurav Swapankumar** of "Guru Nanak Institute of Technology, Nagpur" has undergone Inplant Training at Mahindra & Mahindra Ltd. Nagpur, as from **08/03/2022 To 25/03/2022**.

He has undergone training with Tractor Process Department, Nagpur and has successfully completed his INTERNSHIP PROJECT on "**Sticker Pokayoke Development**"

We wish him all success in his future assignments.

From Mahindra & Mahindra Ltd.,



Principal
Guru Nanak Institute of
Technology





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Web: www.navratna.net E-mail: info@navratna.net

CERTIFICATE FOR INTERNSHIP

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. /Mr. Mahajan Mahesh Sanjay** student of Guru Nanak Institute of Technology, Nagpur Branch: Mechanical, has successfully completed 1 months (10th November to 10th December) internship program at **NAVRATNA INDUSTRIES**.

During the internship program **Ms. /Mr. Mahajan Mahesh Sanjay** has closely worked as a part of the design team in **NAVRATNA INDUSTRIES**.

He demonstrated good design skills and mechanical concepts with self-motivated attitude to learn new things.

We wish her/him all the best for his future endeavors.

ISSUED DATED: 01 April 2022

Mr.Saurabh Singhania
Director, Navratna Industries.

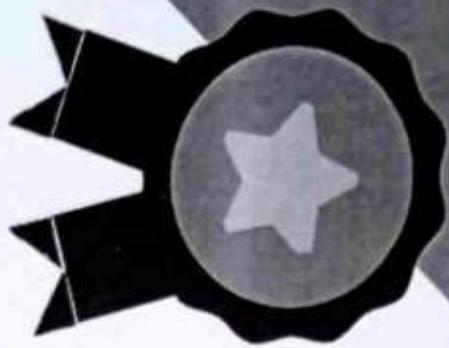



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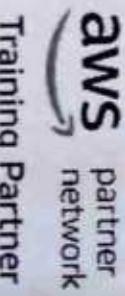
CIN: U72900MH2020PTC350550

ISO: 9001:2015 Certified
MSME Registered



CERTIFICATE OF COMPLETION

REG.NO: BTSIND22PYTGN53



Training Partner

This is to certify that Mr./Miss./Mrs. Payal
Pikeshwar Dongre successfully completed 30
hours Internship of Python Course from April
2022 to May 2022.

Amulya

MANAGING
DIRECTOR

ASST. DIRECTOR
(OPERATIONS)

*Guru Nanak Institute of
Technology*





GURU NANAK INSTITUTE OF TECHNOLOGY

Dahegaon, Kalmeshwar Road, Nagpur-441 501.

Session 2021-22

Department of Civil Engineering

Date:-09/04/2022

Report On Workshop

Department of Civil Engineering GNIT, Nagpur organized a Three Days Workshop from 07th to 09th Apr 2022, on the “3D MAX Software” for Second, Third and Final year Civil Engineering students. The workshop was conduct by Prof. Shumaila Kausar, Asst. Prof. CE, GNIT, Nagpurshe focused on various aspect of 3D MAX Software. Around 95 students of Civil Engineering, of all year were present for the workshop. During this session, students acquired current knowledge of 3D MAX Software. Students feel the workshop knowledgeable & interesting.

Prof. F. F. Katre
Event Coordinator

Prof. S. M. Gajbhiye
HOD, Civil Engg. Dept.

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Session 2021-22

Department of Civil Engineering

Date:-20/08/2021

Report On Webinar

Department of Civil Engineering GNIT, Nagpur organized a webinar on 20th Aug 2021 on the topic “Career Opportunities for Engineers and Strategy to Crack Government & PSUs Exams” for Final year Civil Engineering students. The session was graced by Mr. Aashish Thakur, Engineers Academy Nagpur he focused on various aspect of Career Opportunities for Engineers. Around 85 students of Civil Engineering, of final year were present for the Guest Lecture. During this session, students acquired current knowledge of Strategy to Crack Government & PSUs Exams. Students feel the Lecture knowledgeable & interesting.

Prof. F. F. Katre
Event Coordinator

Prof. S. M. Gajbhiye
HOD, Civil Engg. Dept.



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Dahegaon, Kalmeshwar Road, Nagpur-441 501.

Session 2021-22

Department of Civil Engineering

Date:-19/09/2021

Report On Workshop

Department of Civil Engineering GNIT, Nagpur organized a two Days Workshop on 18th to 19th Sep. 2021, on the “Catia Software” for Second, Third and Final year Civil Engineering students. The workshop was conduct by Mr. Rahul A. Rahangdale Sr. Design Er. CVG, India Pvt. Ltd. Pune he focused on various aspect of Catia Software. Around 85 students of Civil Engineering, of all year were present for the workshop. During this session, students acquired current knowledge of Catia Software. Students feel the workshop knowledgeable & interesting.

Prof. F. F. Katre
Event Coordinator

Prof. S. M. Gajbhiye
HOD, Civil Engg. Dept.



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Session 2021-22

Department of Civil Engineering

Date:-21/12/2021

Report On Guest Lecture

Department of Civil Engineering GNIT, Nagpur organized a Guest Lecture on 21st Dec 2021 on the topic "Awareness of Wild Life" for Civil Engineering students of all Semester. The session was graced by Dr. Sunil Bawaskar, Director, Maharajbag Zoo, Nagpur (MS). He focused on various aspects of Wild Animal Life and Relation with Human. Around 94 students of Civil Engineering, of all semester were present for the Guest Lecture. During this session, students acquired current knowledge of Importance of Awareness of Wild Life. Students feel the Lecture knowledgeable & interesting.

Prof. F. F. Katre
Event Coordinator

Prof. S. M. Gajbhiye
HOD, Civil Engg. Dept.



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Session 2021-22

Department of Civil Engineering

Date:-06/10/2021

Report On a National Webinar

Department of Civil Engineering GNIT, Nagpur organized a National Webinar on 6th Oct 2021 on the topic “Intellectual Property Right (IPR) Patent and Design Process” for Civil Engineering students of all Semester. The session was graced by Ms Pooja Vishal Maulikar, Examiner of Patents & Designs, Rajiv Gandhi National Institute of Intellectual Property Management, Nagpur she focused on various aspect of Intellectual Property Right. Around 92 students of Civil Engineering, of all semester were present for the Guest Lecture. During this session, students acquired current knowledge of Importance of Intellectual Property Right. Students feel the Lecture knowledgeable & interesting.

Prof. F. F. Katre
Event Coordinator

Prof. S. M. Gajbhiye
HOD, Civil Engg. Dept.



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Career GuidanceInternational Relation Cell

Giving young people the tools and knowledge to realistically plan for their futures is a primary goal of education. Career development is vitally important for today's youth, who are more than ever "motivated but directionless". Young people have high ambitions, expecting to be highly educated and have professional careers, yet research has found that many do not develop coherent plans for achieving their goals.

In view of the above point the Department of Applied Science and Humanities (ASH) under Career Guidance International Relation cell organized a Student- Guidance expert Career Counselling session on 24th March 2022, at M1 Building Auditorium. The session started with Prof. Pragati Joseph giving an overview of the session. The session was conducted by Mr. Asif Khan who is the Territory Manager from Study Group India Private Limited. He is a representative for Den Pavel University, Chicago, Long Island University, New York and Florida Atlantic University. The final year students had the opportunity of part taking in a one-day Career Guidance Program held in the college premises.

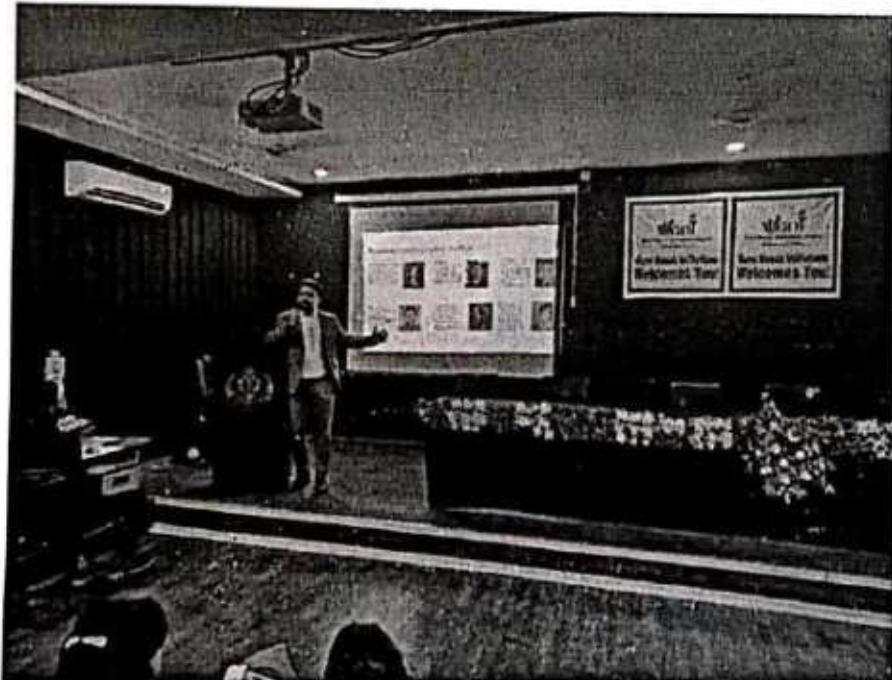
The session was exclusively for Final year students. The session started at 1200hr. The students were given an overview of higher studies, overseas. The expert focused on higher studies mainly at USA and UK. He had briefly explained the following:

- Right time to apply, for each university.
- How to apply?
- How to get a scholarship?
- Duration of the programs and extended stay in each country.

He also shared some success stories to motivate the students. Students who attended this session got an idea about pursuing higher studies in foreign universities, and about management and engineering studies. Students also understood the preparation required for these universities.

There was an interactive Question and Answer session, and the program came to end with the concluding session addressed by Dr. Sudhir N. Shelke, Principal GNIT and Director GNES, Prof.. Geetanjali.Kale, Chair person GNI-IRC, Prof. Ashima Verghes, Chair person GNI-IRC, Dr. K. Ingle Administrator Officer GNI-IRC, Prof. P. Joseph Coordinator GNI-IRC, Ms Vishvika and Mr. Alak MSA.

Session was remarkable one, by the extensive support of Management and AS AGRI and AQUA LLP





One key challenge for this changing service is to move from helping students decideon a job or a course, to the broader development of career management skills. For GNI, this means building career education into the curriculum and linkingit to students' overall development.

Geetanjali

Chair Person:
Prof. Geetanjali P. Kale

Kapil

Administration Officer
Dr. K. E. Ingle


Principal
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Department of Applied Science and Humanities

REPORT ON EXCURSION AT DWARKA

DATED 09/06/2022

The most awaited day of the year was the college picnic to Dwarka Water Park Saoner Road, Waki,Nagpur.

The Excursion was for the student of First year (ASH) Department GNIT.

Dwarka gave an experience of being surrounded by greenery and the beauty of nature. We started at 9 am in the morning with the feeling of great day ahead. The students were extremely excited and kept singing songs in the bus till we reached the venue. We were welcomed by the staff of the water park, and students were amazed to see the pools and slides. Students jumped, rolled, dipped into the water, slide & splashed water all over. They shook their legs to the thumping dance numbers which were played near the pool. They even created few crazy steps and the teachers too joined the fun.

After the fun packed morning we all headed for lunch where we all relished different items of food. We then went to the amusement park for some great adventure. As we entered the park student were amazed by just the sight of the enormous rides like bungee jumping, air king, break dance, dragon ride etc. Everyone tried and enjoyed all of the sports and adventure.

The group photograph time motivated students to make funny faces for the click!

All the students expressed a desire to revisit the place again. Indeed it was a great day for all the students and teachers, as it strengthened the bond between the two.

It was a safe and sound return trip by 8 in the evening.



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Geetanjali

Prof.Geetanjali P. Kale
HOD ASH, GNIT



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Session 2021-22



Date: 16-03-2022

The parent teacher meeting of our BE first year was organized by first year department on 16th march 2022 the main purpose of meet was to create a common platform where teacher and parent come together to enrich the student educational experiences and discuss variety of issues regarding all round development of student.

Parent teacher meeting was started with the Goddess Saraswati Poojan. Welcome address and introductory speech was proposed by Dr. Sudhir N. Shelke, Principal GNIT. He provided information about various student activities and schemes by college.

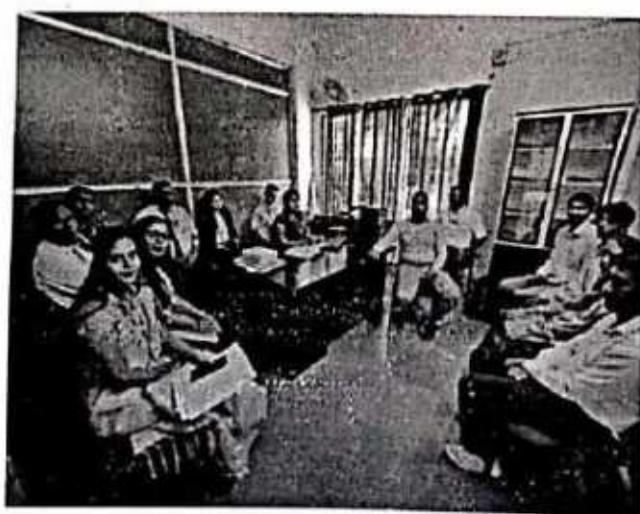
First year HOD informed parents about the strategy for achieving good academic results and overall growth. She described various schemes applied by the college. She has also discussed about the issues which students face in their academics. She discussed about the remedial measures to overcome the lacunas regarding their growth.

Prof. Vidya Raut coordinated with the parents, students and HOD to make this PTM a successful one. The entire ASH family worked whole heartedly. Prof. Pragati Joseph anchored the program and Prof. Priti Nistane proposed the vote of thanks.

Geetanjali

Prof. Geetanjali P. Kale
HOD ASH, GNIT






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DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

Session 2021-22

Report on Celebration of "Teachers Day"

Teacher's Day is celebrated in India every year on 5th September to appreciate the role played by teachers in the life of students—the leaders of tomorrow. The day is also celebrated to pay tribute to Dr. Sarvepalli Radhakrishnan, former President of the country and a visionary educator. Teachers provide the power of knowledge and education and create possibilities for better future. Department of ASH, GNIT, Nagpur celebrated this day with great enthusiasm on 5th September, 2022 at 1600hr. The whole event was meticulously planned by Prof. Geetanjali P Kale, HOD ASH and all the faculty members.

The programme commenced with a short speech on life of Dr. Sarvepalli Radhakrishnan by Prof. Geetanjali Kale. This was followed by a Speech and views by different faculty members of ASH, GNIT. The entire programme was applauded by everyone present and will always remain a beautiful memory in the hearts of one and all present.



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Prof. Geetanjali P. Kale
HOD ASH, GNIT



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**Report on
Celebration of "Guru-Poornima"**

Department of Applied Science and Humanities had organized a programme on the occasion of 'GURU-POORNIMA' along with the departmental Faculties.

"TRADITIONAL DAY" was organised on 13th of July 2022, Prof. Sanchiti Rathod, Hobby Club In-Charge, with other departmental faculties and students; managed the activity under the guidance of Prof. Geetanjali P. Kale, Head of the Department. To celebrate "Guru Poornima" the department of ASH GNIT celebrated Traditional Day. The day was celebrated with great gusto and enthusiasm. The student came fully clad in their traditional dress. Their attire looked simply amazing as they collectively displayed an array of colors that reflected the diversity of Indian tradition. The programme was graced by the acquaintance of Dr. Sudhir N Shelke Sir, Principal, GNIT, Director GNES, Nagpur.



Geetanjali

Prof. Geetanjali P. Kale
HOD ASH, GNIT



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Session 2021-22

Department of Computer Science and Engineering

Date:-10/07/2021

Report On a Webinar

Department of Computer Science and Engineering GNIT, Nagpur organized a Webinar on 10th July 2021 on the topic “Amazon Web Services enhanced knowledge about cloud computing” for Computer Science and Engineering students of all Semester. The session was graced by Dr. Rajashree Dhote , Director IT-NetworkZ Infosystem Pvt Ltd. Nagpur. He focused on various aspect of Amazon web services and focused on cloud computing. Around 70 students of Computer Science and Engineering, of all semester were present for the Guest Lecture. During this session, students acquired current knowledge of Importance of Cloud Computing. Students feel the Lecture knowledgeable & interesting.




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Session 2021-22

Department of Computer Science and Engineering

Date:-15/04/2021

Report On a Soft Skills Training Session

Department of Computer Science and Engineering GNIT, Nagpur organized a Training Session on 15th April 2021 on "soft skills, GD, PI, Communication skills, Confidence building " for Computer Science and Engineering students of all Semester. The session was graced by Mr Pravit Wat , Training and Placement Officer, NIETM Nagpur. He focused on how to improve Communication Skills, how to build up confidence, how we can improve it, what is the basic need of Group Discussion and Personal Interview and focused on How to write resume. Around 65 students of Computer Science and Engineering, of all semester were present for this training session. During this session, students acquire knowledge of Communication Skills. Students feel the Lecture knowledgeable & interesting.



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Session 2021-22

Department of Computer Science and Engineering

Date:-27/07/2021

Report On a Technical Training Session

Department of Computer Science and Engineering GNIT, Nagpur organized a Training Session on 27th July 2021 on “Android App Development” for Computer Science and Engineering students of all Semester. The session was graced by Mr Raj Kumar Arora, Director, Revat Network Nagpur. He focused on JAVA Development, how to create Android APP, How to secure it. Around 50 students of Computer Science and Engineering, of all semester were present for this training session. During this session, students acquire knowledge of Android Development. Students feel the Lecture knowledgeable & interesting.




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Session 2021-22

Department of Computer Science and Engineering

Date:-05/08/2021

Report On Guest Lecture

Department of Computer Science and Engineering GNIT, Nagpur organized a Guest Lecture on 5th August 2021 on the topic “How to Approach Campus Recruitment Drive” for Computer Science and Engineering students of all Semester. The session was graced by Dr. Girish M. Deshmukh Training and Placement Officer , Laxmi Narayan Institute of Technology, Nagpur. He focused on various aspect of Communication skills, basic eligibility criteria for placement drive, How can built strong resume. Around 70 students of Computer Science and Engineering, of all semester were present for the Guest Lecture. During this session, students acquired knowledge of Campus Recruitment Drive. Students feel the Lecture knowledgeable & interesting.



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Session 2021-22

Department of Computer Science and Engineering

Date:-05/01/2022

Report On a Webinar

Department of Computer Science and Engineering GNIT, Nagpur organized a Webinar on 05th January 2022 on the topic “Career Growth in cloud computing” for Computer Science and Engineering students of all Semester. The session was graced by Mr Saurabh Badhel, Sr. Engineer ZS Associates India Private Ltd. Bangalore .The Webinar was organized with intended to enhance the capability of students and given enhanced knowledge about Cloud Computing. He focused on various aspect of Cloud services , Future Opportunities in cloud computing, AWS is a subsidiary of Amazon providing on-demand cloud computing platform and API to individuals, companies and governments, on a metered pay-as-you-go basis.. Around 60 students of Computer Science and Engineering, of all semester were present for this Webinar. During this session, students acquired knowledge of Cloud Computing. Students feel the Lecture knowledgeable & interesting.




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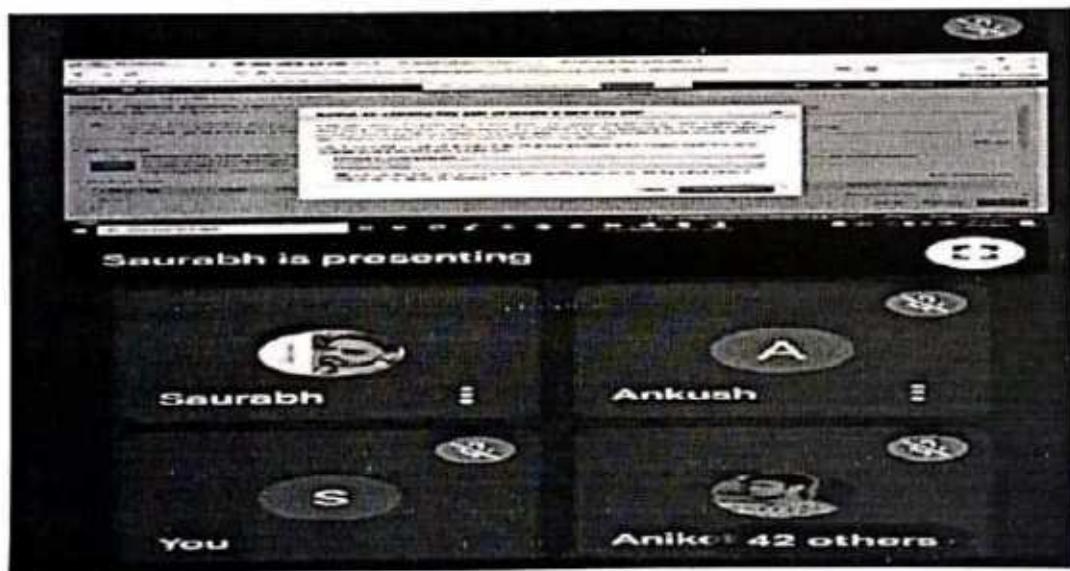
Session 2021-22

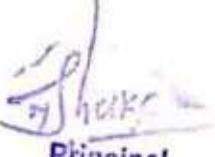
Department of Computer Science and Engineering

Date:-24/07/2022

Report On a Webinar

Department of Computer Science and Engineering GNIT, Nagpur organized a Webinar on 24th July 2022 on the topic “Software Development Phases and Career Opportunities” for Computer Science and Engineering students of all Semester. The session was graced by Mr Saurabh Goswami, Sr. Software Developer Persistant System Pvt.Ltd. Nagpur. He focused on various aspect of Software Development Lifecycle, different module in Software Development, Software Testing and Career Opportunities in Software Development. Around 65 students of Computer Science and Engineering, of all semester were present for this Webinar. During this session, students acquired knowledge of Software Development Phases. Students feel the Lecture knowledgeable & interesting.




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Session 2021-22

Department of Computer Science and Engineering

Date:-26/02/2022

Report On a AICTE/ISTE sponsored One Week Online Induction/Refresher Program “ 5G Technology”

Department of Computer Science and Engineering GNIT, Nagpur organized a AICTE/ISTE Sponsored One Week Online Induction/Refresher Program on 21th February 2022 to 26th February 2022 on the topic “5G Technology” for Computer Science and Engineering students of all Semester also teaching faculty from various collages in Nagpur region. The session was inaugurated by Dr. Prashant Maheshwari, Dean Science and Technology, RTMNU. He shared his knowledge among the participants to enhance the teaching learning process by suggesting various methodologies. Dr. Shruti Bhargava choubey, Dr. Rajashree Raut, Dr. Niles Ugemuge, Dr. Latesh Malik, Mr. Anish Kumar, Dr. Shrikant Sonekar, Dr. Ankit Dubey, Dr. Samiran chatterjee presented views on 5G Technology. This One Week Program focused on various aspect of 5G Technology, Beyond multiple antenna technique, cognitive radio, Edge Computing with 5G, future promise with 5G and AI/ML, challenges in implementation of 5G. Around 70 students of Computer Science and Engineering, of all semester were present for this One Week Program. During this session, students acquired knowledge of 5G Technology. Students feel the Program knowledgeable & interesting.




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Session 2021-22

Department of Computer Science and Engineering

Date:-11/03/2022

Report On Guest Lecture

Department of Computer Science and Engineering GNIT, Nagpur organized a Guest Lecture on 11th March 2022 on the topic “The Essence of Cloud Technology & Information and Opportunities for Graduates” for Computer Science and Engineering students of all Semester. The session was graced by Mr. Dharmesh Dhablia, Director, Paarsh Touch Software Solutions Pvt. Ltd. Nagpur. He focused on various aspect of Cloud Technology, problems in cloud Computing and Security Features in Cloud Computing. Around 68 students of Computer Science and Engineering, of all semester were present for the Guest Lecture. During this session, students acquired knowledge of Cloud Technology. Students feel the Lecture knowledgeable & interesting.




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Session 2020-21 (Odd)

Department of Mechanical Engineering



Date: 27/11/2021

"Report On Scope and Opportunities as a Computer Aided Engineer"

The webinar on "Scope and Opportunities as a Computer Aided Engineer" was organized by Mechanical Engineering department at online platform on 27th November 2021 from 12 pm onwards for Fourth Year students.

Mr.Rahul D Dongre, Director Sales & BD, Mesh Matrix Solution, Nagpur., delivered the lecture. In the talk which lasted for about ninety minutes, Mr.Rahul D Dongre spoke about the technological advancements of the last century, which have their basis in Design and manufacturing processes. Some of the topics addressed in the talk are as follows: Variety of Commands, Tools, 3D Modeling, 2D Modeling their manufacturing processes, products and processes, the major applications of all these in the current engineering world. Prof. & Head of the department handed over the token of gratitude (honorarium) to Mr.Rahul D Dongre. The talk was attended by last year students and faculties of Mechanical Engineering.

Dr. N. N. Wadaskar

HoD. Dept of Mechanical Engg
(In-Charge SWC)

Report Prepared by:

Prof. Sulas Borkar (ME) Member SWC

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Session 2020-21 (Even)

Department of Mechanical Engineering



Date: 16/07/2021

"Report On Information Regarding Overseas Education"

The webinar on ““Information Regarding Overseas Education”” was organized by Mechanical Engineering department at online platform on 15th July 2021 from 12 pm onwards for Third Year students.

Mr. Sumeet Tambe, Executive Director of MSA, delivered the lecture. In the talk which lasted for about 60 minutes, he spoke about the scope, opportunities, scholarship in Western and European countries also spoke about admission process. Prof. & Head of the department handed over the token of gratitude (honorarium) to Mr. Sumeet Tambe, The talk was attended by Third year students and faculties of Mechanical Engineering.

Dr. N. N. Wadaskar

HoD. Dept of Mechanical Engg
(In-Charge SWC)

Report Prepared by:

Prof. Satish Markad (ME) Member SWC

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Session 2021-22(Odd)

Department of Mechanical Engineering



Date: 19/12/2021

"Report on trends & Opportunity in Industrial Robotics and Automation"

The webinar on "trends & Opportunity in Industrial Robotics and Automation was organized by Mechanical Engineering department at online platform on 18th December 2021 from 1 pm onwards for Third & Final Year students.

Mr. Anil tatode, Training Officer, Dept. of Robotics Cloud, RTMNU, Nagpur, delivered the lecture. He is well known personality with abundant experience, in the talk which lasted for about 60 minutes, he spoke about the opportunities and scope as a Robotics Engineer. Prof. & Head of the department handed over the token of gratitude (honorarium) to Mr. Anil tatode, The talk was attended by Third year students and faculties of Mechanical Engineering.

Dr. N. N. Wadaskar

HoD. Dept of Mechanical Engg
(In-Charge SWC)

Report Prepared by:

Prof. Suyash Bhajankar (ME) Member SWC

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NSS

National Service Scheme

Report of Constitution Day Celebration at Guru Nanak Institute of Technology, Nagpur under the aegis of National Service Scheme (NSS): 26th November 2021.

26th November, 2021, Constitution Day or National Law Day was celebrated at Guru Nanak Institute of Technology, Nagpur. This day is celebrated in India on 26 November every year to commemorate the adoption of the Constitution of India and also to spread the importance of the constitution and to spread the thoughts and ideas of **Dr. B. R. Ambedkar**. All the core committee members of NSS and over 50 students gathered in Auditorium of M1 Building. Well before the start of program, all committee members were busy preparing for this special program.

Ms. Nisha Kashap member of NSS, opened the event by welcoming and thanking those who graced with their presence. Hon. **Dr.Sudhir Shelke** Principal GNIT and Director GNES, **Dr. Narendra Wadaskar** Coordinator NSS, HODs of various Departments, **Prof.Sulas Borkar** Co-coordinator NSS, graced the occasion by occupying the seats on the dias.

The Program started with lamp lightening ceremony before Goddess Saraswati and Guru Nanak Devji and Dr. B.R. Ambedkar by the Dignitaries. Ms. Nisha Kashap briefed about the Constitution Day. The preamble of the constitution was read by all the committee members, students and all faculty members. The program was concluded by National anthem. Ms. Nisha Kashap proposed the vote of thanks.

This programme has been successfully organized because of the cumulative and collective efforts taken by **Dr.Narendra Wadaskar** Coordinator NSS, **Prof.Sulas Borkar** Co-coordinator NSS, all NSS committee members of National Service Scheme of GNIT.

S. Navneet Singh Tuli, Chairman GNI, Dr. Sudhir Shelke Principal GNIT and Director GNES, congratulated the NSS Committee for the successful organization of this program.

Prof. Sulas Borkar

Co-coordinator (NSS)

Programme Officer
Dr. Narendra Wadaskar
GNIT
Kalmeshwar Road,
Nagpur-441501
Co-ordinator (NSS)



Principal

Guru Nanak Institute of
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NSS GNIT

26th November



Constitution Day

"I feel that the constitution is workable, it is flexible and it is strong enough to hold the country together both in peacetime and in wartime."

-B.R. AMBEDKAR



Shake

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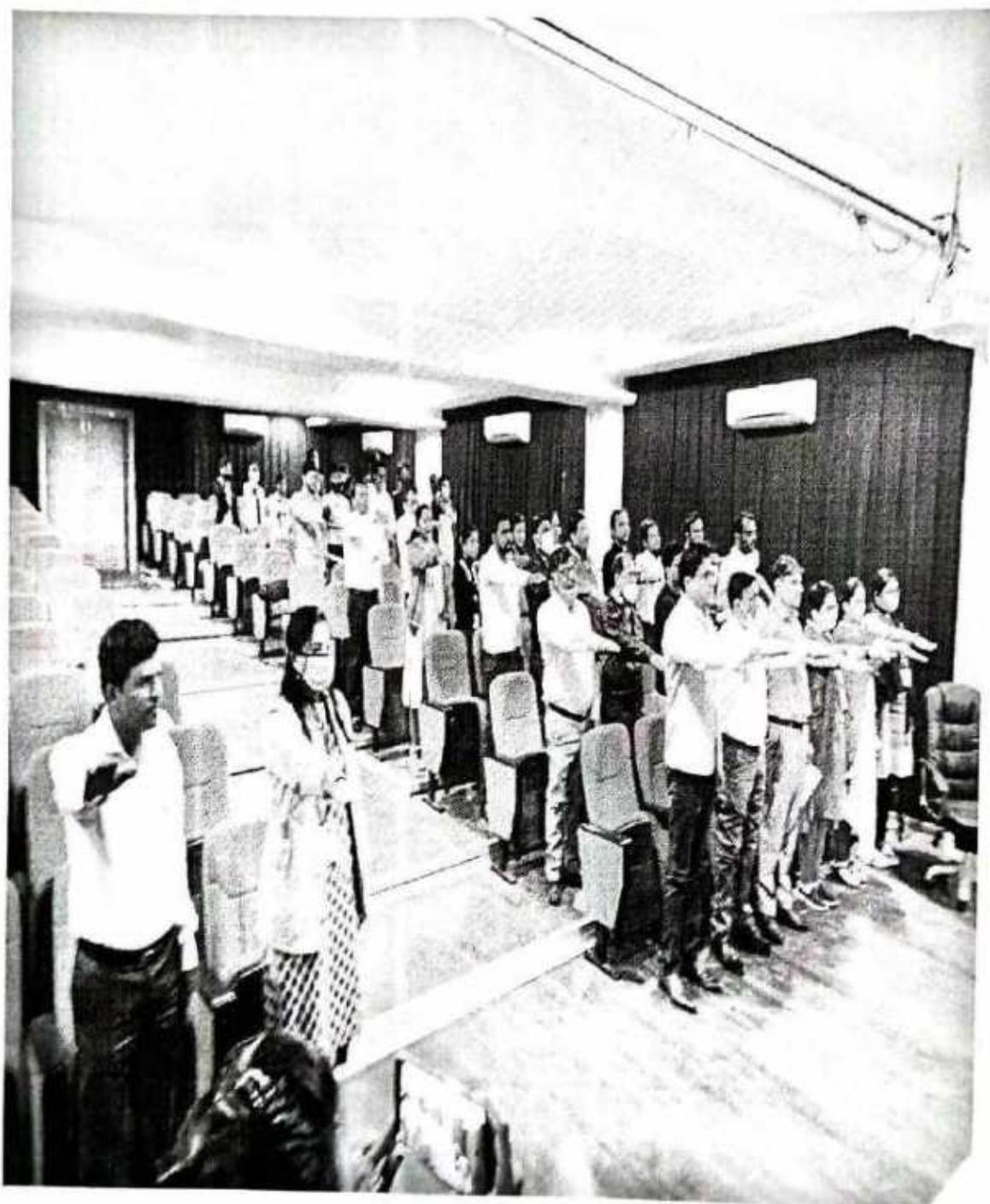
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Programme Officer
NSS Unit GNIT
Kalmeshwar Road,
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Sherine
Principal
**Guru Nanak Institute of
Technology**



M
Programme Officer
NSS Unit GNIT
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Principal
Guru Nanak Institute of
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Programme Officer
NSS Unit GNIT
Kalmeshwar Road,
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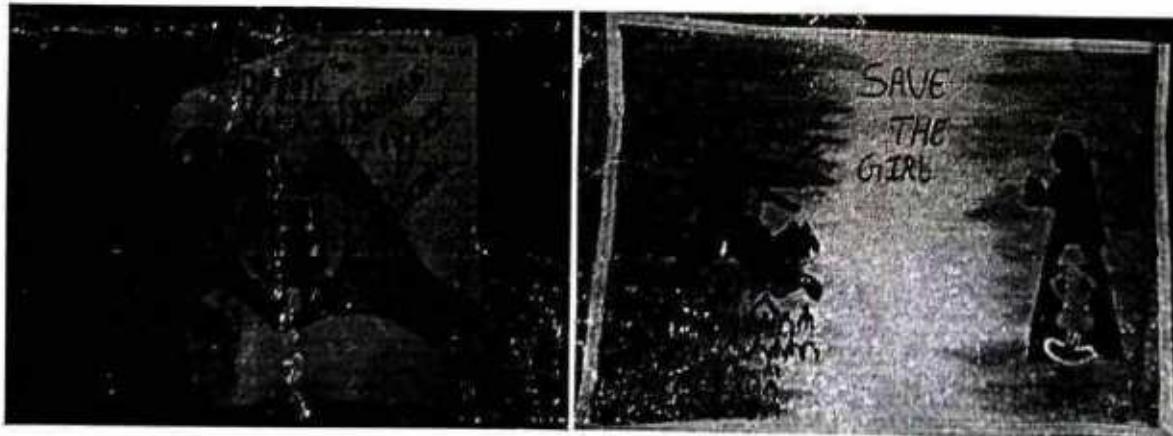
Report of Online Poster Competition on "Beti Bachao Beti Padhao"

Date:-24/01/2022

Online Poster making Competition on the theme "Beti Bachao Beti Padhao" was organized by National Service Scheme (NSS) of Guru Nanak Institute of Technology, Nagpur on 24/01/2022. The event was organized in view of "National Girl Child Day". Total 80 students of 6th to 10th standard of various schools participated in the competition.

Prizes were distributed to the winners. Miss Bhumika Jeswani a student of 6th Standard of Priyadarshini Nagpur Public School, Nagpur won the First Prize. Miss Diksha Kothale a student of 7th Standard of Regent School, Kalmeshwar won the second prize.

The program was organized under the Guidance of Dr. Sudhir Shelke Principal GNIT & Director GNES. Dr. Narendra Wadaskar Coordinator NSS, Prof. Sulash Borkar Co-coordinator NSS, Prof. Rakesh Karmarkar, Prof. Priyanka Raut, Prof. Vandana Prajapati members of NSS worked hard for the successful organization of the program.



Dr. N.N. Wadaskar
Coordinator NSS
Programme Officer
Guru Nanak Institute of Technology
Kalmeshwar Road,
Nagpur-441501





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REPORT ON SAFAI ABHIYAN AND SANITIZER-MASK DISTRIBUTION.

Date: - 4/03/2022

A safai abhiyan and sanitizer distribution was organized by NSS Unit, Guru Nanak Institute of Technology at Regent High School, Kalmeshwar, Nagpur, on March, 3, 2022. The abhiyan began at 10:00 A.M with a short inaugural function by Director & Principal GNIT Dr. Sudhir N Shelke and Principal Regent High School expressed his gratitude to the NSS unit of the College for its continuous endeavor in this regard. Director & Principal GNIT Dr. Sudhir N Shelke highlighted the importance of cleanliness. NSS Program Officer and GNIT faculty addressed the gathering; Cleanliness is the only solution to stay away from diseases.

After a short inaugural function, Dr. Sudhir N Shelke, Director & Principal start the distributing the sanitizer and mask to the students and GNIT faculty continue the processes with the healthful smile. GNIT faculties, Regent School faculties and NSS Volunteers actively take part for cleaning the school premises and surrounding area.

Dr. Narendra N Wadaskar
(Coordinator NSS Unit GNIT)

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GURU NANAK INSTITUTE OF TECHNOLOGY

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REPORT WRITING ON BLOOD DONATION CAMP HELD IN GNI.

Date: - 18/03/2022

A Blood Donation Camp was organized by NSS Unit, Guru Nanak Institute of Technology and Guru Nanak Institute of Engineering & Technology in association with Dr Hedgewar Blood Bank, Nagpur, on March, 17, 2022 at GNI campus. The camp began at 9:00 A.M with a short inaugural function by Chief Guest of the Blood Donation Camp, honorable Director & Principal GNIT Dr. Sudhir N Shelke and Principal GNIET Dr. Hemant Hajare expressed his gratitude to the NSS unit of the College for its continuous endeavor in this regard. Director & Principal GNIT Dr. Sudhir N Shelke encouraged all the donors by saying "Gift of Blood is Gift of Life". He thanked all the donors for the Noble steps they have taken and to help the fellow brethren. NSS Program Officer addressed the gathering, Blood cannot be manufactured - it only comes from generous donors to save the society and mankind, we should come forward for this Noble cause. 67 units of blood were donated by both students and the staff members of our Guru Nanak Institutions. It is a way of Guru Nanak Institutions gesture in bringing a ray of hope to alleviate the serious problems of acute shortage of blood. India faces a blood shortage of 3 million units. The problem can be addressed if an additional two percent of Indians donate blood, as opened by the Health experts. We need 12 million units of blood every year but just about nine million units are being donated. Our College has been religiously organizing blood donation camps every year and students and the faculty members come forward voluntarily to donate blood. While addressing first time donors at the camp our NSS volunteers brought awareness in them about shortage of blood and why we must donate blood every year, to help the persons requiring blood. Blood donation can save lives of innumerable persons. Donation of blood is very critical and crucial for saving lives many patients and those who have met with accidents. It is as such a great service or contribution to the society and people living in it.



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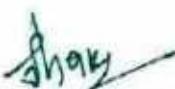
REPORT ON SCHOOL KITS DISTRIBUTION AT PRERANA SPECIAL SCHOOL KALAMESHWAR

Date: - 24/04/2022

A school kits distribution was organized by NSS Unit, Guru Nanak Institute of Technology at Prerana Special School, Kalmeshwar, Nagpur. On 20th April 2022. The program started at 11:00 A.M with a short inaugural function by Director & Principal GNIT **Dr. Sudhir N Shelke** and Principal Prerana Special School expressed his gratitude to the NSS unit of the College for its continuous endeavor in this regard. Director & Principal GNIT **Dr. Sudhir N Shelke** highlighted the importance of the NSS program and recall the last visit's happy moments. NSS Program Officer **Dr.Narendra N Wadaskar** express the motive for the visit in a beautifully words "It is absolutely true, physically challenged people can do wonders if they are provided a helping hand."

Prerana school students present the lovely dance show and create an energetic surrounding for the GNIT students as well as the faculties.

After a short inaugural function, **Dr. Sudhir N Shelke**, Director & Principal started distributing the School kits to the students, and the GNIT faculty continue the process with a healthful smile. GNIT faculties and NSS Volunteers actively take part in the program for spreading happiness in the surroundings.


Principal
**Guru Nanak Institute of
Technology**



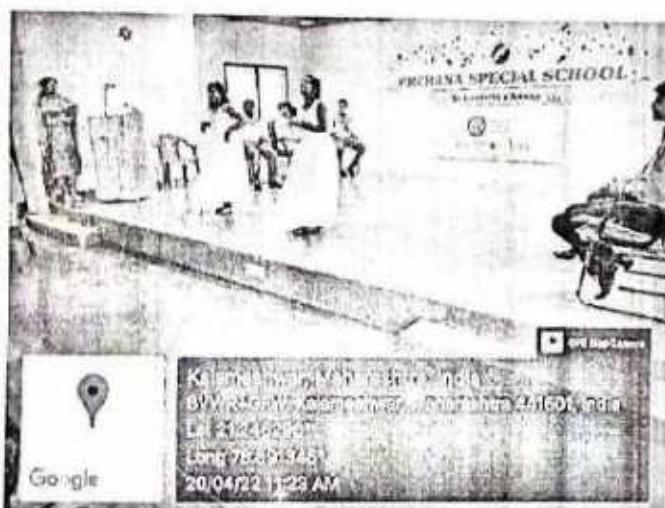

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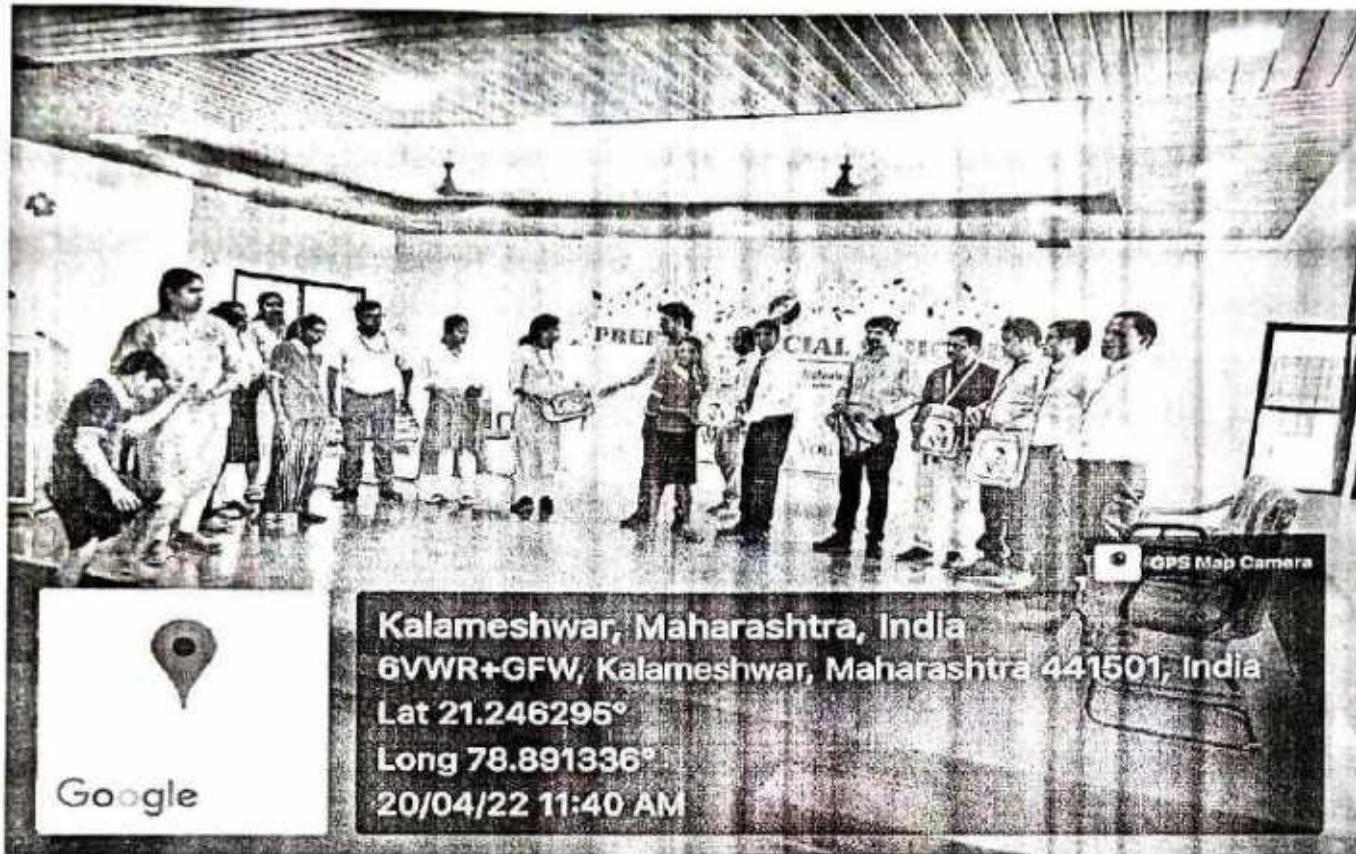




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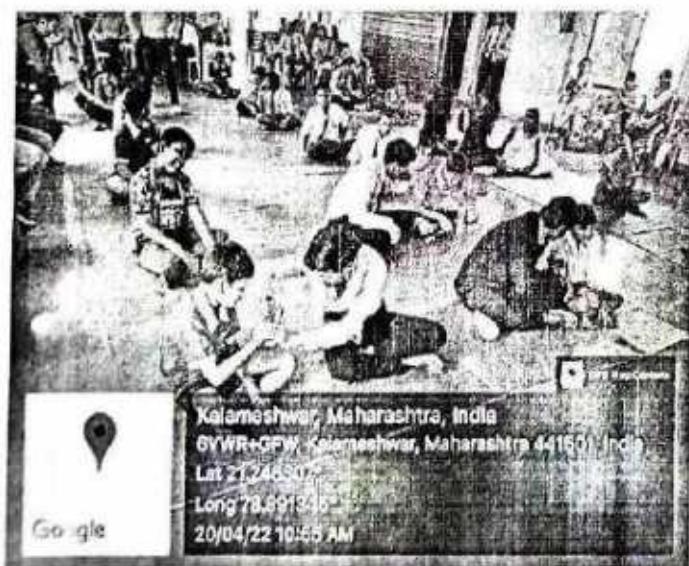
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REPORT ON SHIVSWARAJYA DIN.

Date: -07/06/2022

HISTORY AND SIGNIFICANCE

The Coronation of Shivaji Maharaj took place on June 6, 1674. On this auspicious day, he began early in the morning, adorning white robes and praying to his deities. Gaga Bhatta, the priest from Varanasi, was present to perform Shivaji Maharaj's Coronation. The two main rituals to take place in the coronation were the 'Abhishek'* on the king and the holding of the 'chatr'* over the king. On the golden platform, Shivaji Maharaj sat with his wife, Soyrabai, and his son, Sambhaji. His eight ministers were ready with a pot full of sacred water from rivers like Ganga. With religious spells from the priest, Abhishek Shivaji Maharaj was carried out of the sacred waters by eight ministers. After this, Shivaji Maharaj, wearing red robes and ornaments, and a crown, worshipped his sword, armour, bow, and arrow. He then entered the coronation place and sat on the throne. People acclaimed "Shivraj ki Jai" as "Shivraj ki Jai." The skies were filled with acclamations. Shivaji Maharaj's throne and said, "Chhatrapati." Salutations were given from various forts, blowing the cannons.

The event proved to be a milestone in Maratha history as it also marked the beginning of Hindavi Swarajya in India. It was on this day when Shivaji was given the title of 'Shakakarta' which means 'founder of an era' in English and 'Chhatrapati' (paramount sovereign)..

Shivswarajya Din was celebrated at Guru Nanak Institute of Technology with great pride. Dr. Sudhir N. Shelke started the programme with great devotion and garlanded the photo of Chhatrapati Shivaji Maharaj and illuminated the lamp. The NSS coordinator and presenting college staff worship the Shivaji Maharaj photos.

Dr. Sudhir N. Shelke has enlightening information on the life of Shivaji Maharaj and his true greatness. The NSS coordinator shared the significance of celebrating this event with the students. After the speeches by students and teachers, the programme ended with the National Anthem. In all, there were 75 students participating in the events.

*Abhishek – giving a bath with sacred water

*Chatr – a canopy or an umbrella hold as a mark of protection




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