ONLINE/OFFLINE CHECKERS GAME - (ANDROID MOBILE GAME)

Abstract:-

- Android is the first complete, open and free mobile platform. It is developed by the Open Handset Alliance, a group of more than 30 technology and mobile companies. It is supported by Google and this project uses a Google Android Mobile SDK 1.0 for testing an application.
- Modern hand held devices such smart phones and PDAs have become increasingly powerful in recent years.
- Most cell phone regularly includes Cameras, Processors comparable to PCs from only a few years ago.
- The prime objective of "Android Checkers Game" is to user can play Online/Offline Checkers Game.
- In Most of game, two players are required, but in this game user can play with mobile.
- And also user can play online game with other player.
- Android Version 2.2 and above all version support this game, So user can play game with any version.

Student Name:-

Mayursinh J. Vaghela (100780107013)

Hemang K. Shukla (100780107051)

Internal Guide:-

Asst. Prof. A. V. Panchal





INFO ME - (ANDROID MOBILE APPLICATION)

Abstract:-

- Android is the first complete, open and free mobile platform. It is developed by the Open Handset Alliance, a group of more than 30 technology and mobile companies. It is supported by Google and this project uses a Google Android Mobile SDK 1.0 for testing an application.
- Modern hand held devices such smart phones and PDAs have become increasingly powerful in recent years. Most cell phone regularly includes Cameras, Processors comparable to PCs from only a few years ago.
- The prime objective of "Info me Application" is to user can create job profile, business profile, personal profile.
- User will must fill registration form before create any profile. After registration user get id and password for access his profile .User can also invite and share job profile, business profile, and personal profile to other.
- User will invite her profile to other user via email and phone number. When user invite via email mail will be sending to invite user and user invite via phone message will be send to invite use. User must enter email and mobile number for the invitation. User will share profile via Facebook, twitter and bump.
- Bump is very new module for android application. If user want to share profile via bump must have android phone.

Student Name:-

Thakkar Trushal C. (100780107011)

Nandasaniya Bhavesh B. (090780107062)

Internal Guide:-





Asst. Prof. Kiran Thakor

ONLINE JOB PORTAL

Abstract:-

In this competitive era, the education among the people is so increasing that the jobs for them are now decreasing. The companies even want the people who are best in their fields. At that time, it becomes difficult to find the people who are intelligent enough to be hired. The work for the companies also increases to find the people who can fulfill their requirements. Thinking about these problems, one can think about the process which can handle this process and make the work less complex.

This project is about the recruitment process which is done online. The recruitment process here is handled by the system. This project will allow the person to apply for a job in the company for the interested vacancy which would be available at the company. The person will be having the account after registration and will be then called the applied user. If he would be qualified, he would be interacting with the system for the updates. The project is created for fulfilling the requests of the company managers so that the recruitment module can be placed in the company's website and the users who visit the website can view the vacancies in the company and will be able to apply directly from remote place even. The vacancies will be posted by the administrator on the basis of needs of the manpower in the company.

The admin will have all rights of handling this process except the evaluation process as it is the company specific and so the steps of the evaluation process cannot be predicted. It also includes the layers at the admin side so the privileges will have great impact on the functionalities given to the different levels of admin. The privileges will be user specific, so different admin even at same level will have different privileges and so different functionalities. The higher level admin will handle whole system by himself. Although the lower level admin is given such privileges that he can send any kind of request to the higher level admin. The higher level admin can approve or disapprove the request. Whatever the result of the request approval, the notification will be sent to the lower level admin. This project plays main role at admin side for recruitment process. The start dates and end dates for applications' acceptance, the grace period, the job vacancies' postings, modifying the privileges etc. are the special features of this system.

Student Name:-

Patel Krunal K. (110783107009) Patel Hiral A. (110783107016) Shah Harita N. (110783107010)

Internal Guide:-

Asst. Prof. R. L. Patel



REAL ESTATE MANAGEMENT SYSTEM

Abstract:-

This system will provide facility to the user to search Residential and Commercial property and view property. This system will provide facility to view the property by admin and user. User will able to upload the property information to the site and able to manage it. This system will provide facility to the user to fill up their requirement and according to their Requirement Admin can add the Requirement property. This system will provide facility to the user to publish advertise to the Site and view. This system will provide facility to the user to feedback to the site.

Student Name:-

Ghanshyam. D. Patel (110783107017) Parth. P. Patel (100780107014)

Internal Guide:-

Asst. Prof. K. B. Thakor



ONLINE CITY KNOWLEDGE

Abstract:-

- The Project Online City Knowledge provides the data to user who requires the information of about the servicer of that city such as Medical, Finance, Education Facility etc.
- The Application is developed with the objective of making the system reliable, easier, fast, and more informative. The application is provide the platform for different user requirement registering on City knowledge site will help the user for updating any news regarding their selected city.
- To develop a common interface for different sections of the user and firm. The system should provide help in managing different sector as well as the user associated with this application.

Student Name:-

Ginal.A.Patel (110783107003) Vishal.B.Raval (110783107014) Nishit.V.Patel (100780107027)

Internal Guide:-



Asst. Prof. K. B. Thakor

WEBSITE TRAFFIC ANALYZER

Abstract:-

- Website Traffic Analyze engine which used to analyze Website Traffic.
- Website Traffic is the Amount of people that comes to visit a website And Location of visitors using IP Address.
- In this application there are three module Member, Administrator & Guest User Module.
- To get information about how many peoples are visit this particular website.
- To get information about visitor's time duration and location of current visitors using IP address.

Student Name:-

Patel Vidhi P. [10CE15]

Patel Arati M. [10CE31]

Chaudhary Nilam A. [D11CE18]

Internal Guide:-

Asst. Prof. J. C. Patel



WEB MOBIC

Abstract:-

In the era of technology, revolution and change has been take place in all sector and area of human interaction like traveling, working, and so on. Like same the revolution is also takes place in communication sector. Now a days, there are many ways and choice available for communication. Like, voice call, video call, text messages, short code, etc. People are using all these services by paying some little bit of amount for each. We all know that, each and every thing in the world has some disadvantages against of its advantages.

Here, we are discussing about text message communication (SMS). SMS is the best option for making communication with more people at a time. Using SMS you can notify many people at a time. But, using mobile it is limited for us. We cannot send a single text message to large volume of numbers such like 1k or 2k. For professional marketing and to promote any business entity in market, SMS marketing is the best option. It is also prove itself best as for social communication option. Like inform any news to number of friends or relatives. To use this communication medium, there are so many websites available in market, which provides facilities to send single SMS, bulk SMS, and group SMS. But, they have some limitations. Such as, you can send only 27 message per day in group (Way2SMS), so many pop-up advertise disturbing to user. And so on to overcome these problems and with some new concept, to provide some benefits to user, we are going to develop a conceptual and dynamic website **WebMobic**. Web Mobic is an online website for sending message. Which give opportunity to user to earn money by sending SMS and uploading file.

Student Name:-

Patel Jaimini J. (110783107006)

Patel Henal S. (100780107001)

Internal Guide:-

Asst. Prof. J. C. Patel

WebMobic	Mobile No	Password	Login Forgot pessword?
smangalas.com	Sign Up, and	start earning money.	
SMS	Henal	Patel	
	Henal@gmail.com	E .]
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Top Members	Step 1 Nake Rege	stration.Do Login.Sand SMS	Sign Up MEB IS PESIGNED POR SPEED.
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Home About Webmobic Term of use Privacy Po Copyright @ 2013-2014 all rights reserved by www.webmobic.c Design & Develop By:pcube Software Solution	olicy Inquiry Give Feed	back Contact Us follow us on f t g.	Advertize with us

ONLINE BUSINESS DIRECTORY

Abstract:-

The Project Online Business Directory provides the data to both company as well as the user who require the information of different company. The Application is developed with the objective of making the system reliable, easier, fast, and more informative. By using this application the user of this site got all the information regarding the Engineering Company.

Registering on Business Directory will help companies to reach out to potential clients / Trade partners and International Markets. Business Directory would serve as the SINGLE WINDOW reference point to anyone requiring information regarding Engineering sector. We will develop a common interface for different sections of the user and company. The system should provide help in managing different company as well as the user associated with this application. We will provide all the available information of particular company when user required and also provide security to the confidential information. Reduce the redundancy of making the entries of the activities which are done manually. It also speed up the processing time.

Student Name:-

Zala Ravi D. (090780107052) Patel Sanket N. (110783107023)

Patel Maulik V. (090780107023)

Internal Guide:-

Asst. Prof. Ruchita Patel



ONLINE STUDENT ADMISSION SYSTEM

Abstract:-

Today all the work at the time of admission of the students is done manually by ink and paper, which is very slow and consuming much efforts and time. It is required to Design of a Computerized Automated Student Admission System, to speed up and make it easy to use system. Student admissions are a vital part of any university's running because students are what keep a University alive. The student admission is one of the most important activities within a university as one cannot survive without students. A poor admissions system can mean fewer students being admitted into a university because of mistakes or an overly slow response time. The process begins with a potential student completing an application form through the Universities and Colleges Admissions Service, the first step for students is to apply directly to the university through a custom online form. This project's aim is to automate the system, prechecking the inclusion of all required material and automatically ranking each student's application based on a number of criteria. These criteria include the ranking of their university, their grade at said university and their language grade Certificate. The data used by the system is stored in a database that will be the center of all information held about students and the base for the remainder of the process after the initial application has been made. This enables things to be simplified and considerably quickened, making the jobs of the people involved easier. It supports the current process but centralizes it and makes it possible for decisions to be made earlier and easier way.

Student Name:-

Panchal Hinal S. (D11CE13)

Dave Sonal R. (D11CE15)

Internal Guide:-

Asst. Prof. Ravindra Patel

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Home	LOGINHERE		
Admin	Course Name	Degree Engineering	1
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물송 분대 김		SUBMIT	
	If you are not Registered then Re	gister here	
		REGISTER NOW	

REWARD POINT SYSTEM FOR DISCOUNT.TOP10IDEA.COM

Abstract:-

In the era of technology, revolution and change has been take place in all sector and area of human interaction like traveling, working, and so on. Like same the revolution is also takes place sector. Reward Point is Conceptual Dynamic module in communication for discount.top10idea.com, Which Provides Points Rewarding System to the Website. In this Reward Point System, Register User Will Share Offer of the Website on Social networking site like as FACEBOOK & he Will gets Points for their Sharing. After getting of lots of Points. User Can Buy Product/Gift through that Points. This System Will perform big role in Promoting of discount.top10idea.com. This website will be develop in Asp.net technology As a Front end. In Back-end we will use Microsoft SQL Server, CSS, Ajax & So many Designing tools. For its Best Performance & Attractive Design.

Student Name:-

Chauhan Manish R. (090780107050)

Internal Guide:-

Ihost/7093/REWARD P C Iocalhost/7093/REWARD P C Iocalhost/7093/REWARD%20POINT%20SYSTEM%20COE	DING/Member_Registration.aspx
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First Name: Anki	Last Name : Projecti
Gender : • Male - Female	Birth Date : 21/09/1991
Address : Brahamanwada	City : Dinha
Country : india	Contact No: 9662490570
Email Id : ankit@gmail.com	Password :
Photo: Choose File ganesh1.jpg	
If you are	Registration already registered then please Click Here To Login

Asst. Prof. Ruchita P. Patel

E-LEARNING CENTER

Abstract:-

Students learn more if they are actively involved in the learning process, particularly in a cooperative manner. LCs are designed to assist large numbers of students in a cost- and time-efficient manner that promotes student engagement without requiring undue amounts of faculty time. The goals are to build student self-confidence through direct interaction with role models and to develop teamwork skills. LCs can be much more attractive to students than faculty office hours or traditional tutoring because they satisfy the social elements of student learning communities.

Student Name:-

Patel Dimpy C. (100780107008) Patel Ritu B. (100780107006) Patel Srushti N. (100780107007)

Internal Guide:-

Asst. Prof. D. R. Patel

E-Lea	rnin	g Ce	nter		
	Home Ab	out Download	Registration	Contact us	Event
	E-Lea "BEST LI	rning Ce	enter RTNER"		 MY PROFILE UPLOAD YOUR MATERIAL DOWNLOAD YOUR MATERIAL UPLOAD EVENT
User Login Username: dimpy.patel30@gmail.com Password: Login Forgot Password? New User?	1		Welcome To We provide & faculties can appro- their knowl We serve la pdf,ppt,ebo updates for We provide any kind of	o Our Site a commo interacts ach facul edge to st atest infor ooks. All und at com online su academic	on platform where Students which each other. Students ties. Faculties can share tudents. mation, study material like the latest educational nmon platform. pports. Post your query for chelp.

PROJECT MANAGEMENT SYSTEM

Abstract:-

Project Management System software is used to manage the Project Planning and Estimate the hours for Project. In this Software you can add new Resource and Team for Each Project and Also Add the New Project. This Software is based on Software Development Life Cycle. Follow the step for SDLC Process. You can also manage the Team for Each Project, and Each Resource have Different username and password and resource can also fill the Time Sheet for his Work. You can Also Add the Branch Details and Client Detail, this all are used to manage the Project and Estimate the Project Hours and Cost.

Student Name:-

Binal A. Patel. (110783107011)

Internal Guide:-

Asst. Prof. Adesh V. Panchal

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		Sr #	Project			Project Leader	Start Date	End Date	Client	Es						
Weic	come Admin	14	RAN Application				12/00/2012	12/10/2013	Income TAX							
Home		16	PMS				25/12/2013	25/01/2014	Income TAX							
Resource	e	17	Project Management Syst	tem			07/02/2014	07/06/2014	Creative Infotech Pvt Lt	н						
Project		18	Record Management Syst	tem					Income TAX	-						
SDLC Pro	ocess	19	Return Receipt				16/05/2013	31/05/2013	Income TAX							
Team	-1	20	TDS				06/08/2013	30/09/2013	Income TAX							
Timesne	et	21	Training Management Sy	stem			10/01/2012	19/07/2012	DTRTI							
Client		22	TRMS Silverlight				01/10/2012	30/11/2012	DTRTI							
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PARTICIPATION & ACCOUNTABILITY OF ELECTED POLITICAL REPRESENTATIVES IN SOCIETY

Abstract:-

Donors support political participation as a means of improving state accountability and responsiveness, and empowering the poor. But have democratization processes really increased political participation, particularly pro-poor participation? If not, what are the barriers to such participation? Political participation can involve activities ranging from voting in elections or joining a union, to discussing politics with friends or engaging in community self-help initiatives. This system takes a deliberately broad view; defining participation as all voluntary activities that aim to influence political decisions at all levels of the political system & governance.

In their role of ensuring public accountability, our elected representatives need to agree on what accountability means and the standards reasonable to expect. Accountability is the obligation to answer for the discharge of responsibilities.

Student Name:-

Khushbu B. Thakkar (100780107005)

Falguni N. Vaghela (100780107030)

Radhika J. Patel (100780107023)

Internal Guide:-

Asst. Prof. Jignesh Patel



PROJECT ALLOCATOIN AND TRACKING SYSTEM

Abstract:-

The total number of students eligible for a project has rapidly risen in the past few years. All eligible members of staff are asked to submit a number of such proposals, which, after a process of peer reviewing and corrections, are brought to student's attention. It is in the student's best interest that they should be offered a wide range of project proposals, from which they can choose the one that is appropriate for their course and is of their "liking". As a result, faculties (guides) are encouraged to submit more proposals than their excepted supervision loading of 10-15 students.

- Assign student to projects which meet their course requirements
- Give all students a fair chance to apply for a project of their choice
- Balance the supervisor's (guides) loading and
- Allow supervisors to run students or projects and also protect the project data.

The Project Allocation System is a web application that allows the allocation to take place securely over the Internet, independent of the location and the equipment of the user. The application is secured so only the people responsible are allowed to perform the allocation and to view the sensitive data. Apart from the administrators, secretarial staff can also use the System. After its completion, the System was tested using data that simulate actual real time use.

Student Name:-

Sweta Prjapati (100780107029)

Kshiti Patel (100780107018)

Internal Guide:-

Asst. Prof. Ravindra L. Patel



COACHING CLASS

Abstract:-

 Coaching class can register here(free Registration), they can add the students, manage branch, faculty, branch, fees, fees receipt entry, Attendance entry (RFID device through Attendance), Online Test Result upload (Excel file will be uploaded that will be converted to SQL server), Result SMS to parents, Remainder to selected parents about Fees/Attendance, Progress Report mailed to parent, Graph is generated for subject wise Progress, Import/Export facility for Data in CSV format, Faculty Salary/Commission details, Marketing Emails and many more functionality.

Student Name:-

Patel Himani D. (100780107022) Patel Binal B. (100780107015)

Internal Guide:-

Asst. Prof. Ravindra L. Patel



ONLINE CONFERENCE MANAGEMENT SYSTEM

Abstract:-

Our project is meant to give people a better and trustworthy platform where they can share their own views in the form of Paper. They can register into the system and upload their paper. At the admin side management can view the paper and review by giving it to the reviewer. Reviewer can assign the marks. Selected paper and participant call for deliver the conference.

This system provides ease of access the system to the user. It saves the time and money of the person in today's busy life. Sending the paper, selection of the paper and conference organization held in a quick manner.

Student Name:-

Patel Janki K. (110783107004)

Prajapati Binal D. (100780107033)

Internal Guide:-



Asst. Prof. Adesh V. Panchal

E-NOTE - WIRELESS COMMUNICATION FOR TRANSMITTING AND RECEIVING MESSAGES

Abstract:-

This Project is specially focused on updating the present messaging systems like circulars, notices, private messages in the institutes like colleges and schools. Now you would think of the presently available technologies in the market but all of those are based on GSM, internet and Wi-Fi environment. But our project is independent of all these kind of environments. It just requires a computer and transceiver to send a message to another connected device or computer.

Student Name:-

Patel Jay P. (100780107012)

Gajjar Foram K. (100780107034)

Internal Guide:-

🍝 jframe Manage Devices Send Message Day: year month 💌 date -Scheduled Message Time: min • sec hour --O Outbox Select Name To: -O Inbox O Manage Users send logout

Asst. Prof. Adesh V. Panchal

HOUSE OF KNOWLEDGE

Abstract:-

An education portal is a specially designed website that provides a host of educational services. The term portal was historically used to describe a port or location of multiple loading and offloading activities. It is now used most widely to describe a multifunction website that includes public and private sections, data retrieval and submissions tools, personalized content, and often links or connections to education related systems or services. The ability to provide personalized, user-specific content is central to the core functionality of an education portal. There are two ways to provide this content: a series of template forms or the use of a content management solution. A public website typically provides a range of general information about the school, programs, course, history, and admissions. Users are encouraged to refer to the website instead of contacting the school directly for general information. The content manager is responsible for reviewing and publishing content that is accurate, relevant, and easy to locate. Education portal is provided three portal like such as an Admin portal, Student portal and Teacher portal.

- The Administrator Portal is means to be a one-stop shop for college administrators to access important applications, student data, managerial data and reports.
- The Teacher Portal is means to be a one-stop shop for teachers to access important district applications, student data, and reports while providing essential curricular and planning resources to facilitate differentiated instruction.
- Student portals contain information on courses offered, transcripts, email programs, timetables, exam schedules and department contact numbers. They may also offer links to useful web resources such as research tools and online journals. Colleges and universities provide important information through student portals.

Student Name:-

Dipika M. Patel (100780107003)

Ekta N. Patel (100780107002)

Sejal H. Thakkar (100780107019)

Internal Guide:-

Asst. Prof. Ravi Patel



ONLINE RFID ATTENDANCE SYSTEM

Abstract:-

- The Company looking for the user-friendly Website that helps the user to find its own choice company and facilities. It also helps the administrator to update and maintain the website.
- The administrator can update, add and delete the details of customers and company's facilities and rules.
- The customer can do online registration for the online attendance facility. So this website fulfills its entire requirement online.
- We also provide the security facility in this online attendance system based on RFID website, only authorized person can use his/her account.
- Employee can also take his/her leave from any location he has to just login to their account and apply for leave.

Student Name:-

Prajapati Narendra P. (D11CE09)

Internal Guide:-

Asst. Prof. Kiran Thakor



LOCATION BASED PROFILES – UTILITY

Abstract:-

This apps uses phone musts to determine your location, so that you can change your ringer, vibrate and ringtones depending on where you are as well as the time of day. The application is developed with the objective of making the system reliable, easier, fast, and more informative. It creates profile and automatically sets profile based on the location. Add various details about time based and location based reminders like title, description, location, radius, to-do list. This application provides functionalities such as save location, view saved location, location alert, profile settings. It also changes wallpaper as per location setting. It provides another feature is history management to share history of location.

Student Name:-

Patel Ankita S. (100780107005) Mistry Khushbu V. (110783107019)

Internal Guide:-

Asst. Prof. Kiran Thakor



MAKE MY MONEY.COM

Abstract:-

The Internet has rapidly become both a facilitator and enabler for the exchange of information. Today's knowledge workers create, manage and actively exchange information while producing value for their companies. In doing so, they have become the primary business assets of the new millennium.

Make My Money.Com is online work portal. It is not like just freelancing work for worker or person who work in this portal but also user or person aware with new projects, new tricks and concepts in that technology which in he or she work. This portal also provide problem troubleshooter of different technology expertise person to solve or guide on user mistakes and problems. This is not only earning money to you but it is also providing knowledge. Means we called it knowledgeable money portal.

In this context, mobility means going nowhere by using electronic transportation systems to move information and not people. This model of work is more expansive than simple telecommuting, which only overcomes local, short-distance space constraints. Telecommuting neither addresses time constraints, nor does it achieve the significant cost savings possible when the Internet's capability to overcome space limitations is fully utilized. The fact that electronically enabled work options, have not been fully realized is primarily because of antiquated notions concerning corporate culture and creating value. Here, the open source software movement shows us that culture can exist in cyberspace and also provide real value for companies. This new model of work represents the next Internet revolution.

Student Name:-

Patel Mayuri N. (100780107028)

Rangwani Bhoomika R. (100780107020)

Internal Guide:-

Asst. Prof. Jignesh Patel



Make My Money.com	Developer Tokan ID Password Log In Keep me logged in Forgot your password?					
	Sign Up					
Connect with us and increse your skills and money on Make My Money.com	First Name Last Name					
_	Your Email					
Get much more work in your profile .	Apply for (.Net,Java,PHP,Android)					
Get much more experiance from us.	Highest Education					
get much more money for your work	Mobile Number					
s get mach more money for your work.	By clicking Sign Up, you agree to our Terms and that you have read our Policy,Download Application Form .					
getting more achivementsn from us.	Sign Up					

FINDING MY MARKETER

Abstract:-

There are so many people who are producing different things and appointing the marketing team and paying salary but not getting the best result but if they can find good marketer on commission based then they don't have to tolerate this load and they can pay as per selling and in this manner they can expand the business as well. So client approaches us with kind of solution which can clear the distance between these two entities and as a result we produced the system which can help the production units to find the best marketer nearby. Here Advertiser can advertise thousands of products and bunch them in particular Subcategory. Here promoter can promote products of the Advertiser, and after selling the product he can get commission on the total price of product.

Student Name:-

Tamboliya Milan K. (110783107022)

Internal Guide:-

Asst. Prof. Kiran Thakor



BOOKONSMS

Abstract:-

"Book on SMS" is such application that contains desktop and web interface to purchase the books of Technical Education. It will allow user to order by SMS. An automatic interactive Desktop System will get the Message and it will search through the data online and response to the message. User can search, order, and cancel order using SMS as well as web interface on www.bookonsms.com. Administrator can check the status at web-site with admin login system.

To provide book by SMS is easy for the Students who are busy in their daily work, they can order book any time, like from the college, while travelling, etc. It deals with selling technical books. This system provides all details of book. It also allow user to order online and also request for the particular book which are not currently available or also not listed. This system also allow to order books offline via SMS.

Student Name:-

Jignesha Patel (100780107049) Aanal Parikh (110783107001)

Nidhi Prajapati (110783107020)

Internal Guide:-



Asst. Prof. Dhara R. Patel

ONLINE AUCTION SYSTEM

Abstract:-

An online auction is an auction which is held over the internet. It is a popular method for buying and selling products and services. Online Auction System s helps to customer to sell and buy product in best price. It is developed with the objective of making the system reliable, easier and fast. This application is used to sell the anything on the website from house. This application is used to sell the anything on the website from house. It developed with the objective of making the system reliable, easier and fast. The application is made as simple as surfing a website. There by non-technical persons can also interact with the processing on the application easily.

Student Name:-

Ankit R. Prajapati. (110783107018) Fulaji N. Vanzara. (110783107008) Bhavin B. Nayee. (110783107007)

Internal Guide:-

Asst. Prof. Adesh V Panchal.



STUDY OF MECHANICAL PROPERTIES OF CONCRETE USING CEMENTITIOUS MATERIALS

Abstract:-

Concrete is the most versatile construction material because it can be designed to withstand the harshest environments while taking on the most inspirational forms. Engineers are continually pushing the limits to improve its performance with the help of innovative chemical and mineral admixture. Nowadays, most concrete mixture contains supplementary cementitious material which forms part of the cementitious component. These materials are majority byproducts from other processes. The main benefits of SCMs are their ability to replace certain amount of cement and still able to display cementitious property, thus reducing the cost of using Portland cement. The fast growth in industrialization has resulted in tons and tons of byproduct or waste materials, which can be used as SCMs such as fly ash, marble dust, ground granulated blast furnace slag, steel slag etc. The use of these byproducts not only helps to utilize these waste materials but also enhances the properties of concrete in fresh and hydrated states. Slag cement and fly ash are the two most common SCMs used in concrete. Most concrete produced today includes one or both of these materials. For this reason their properties are frequently compared to each other by mix designers seeking to optimize concrete mixtures. Research indicates that deficiency associated with the use of Fly ash cement is its low strength specially in early age. Similarly research papers show that slag cement gain strength at early stage but rate of gain of strength is low leading to comparatively less ultimate strength. Research studies indicate that inclusion of Silica Fume in binder mix positively improves the strength of the matrix and its chemical resistance but can create increase in water demand, placing difficulties, plastic shrinkage etc. However, all these materials have certain shortfalls but a proper combination of them can compensate each other's drawbacks which may result in a good matrix product with enhance overall quality. In the present work a series tests were carried out to make comparative studies of various properties of concrete prepared by using Fly ash and marble dust. Experimental investigation has been carried out to study the effect of the fly ash, marble dust on the properties of both fresh and hardened concrete.

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USE OF E-WASTE AS A REPLACEMENT OF NATURAL SAND IN CONCRETE

Abstract:-

Concrete is a composite material composed of coarse granular material embedded in a hard matrix of material that fills the space among the aggregate particles and glues them together. Engineers are continually pushing the limits to improve its performance with the help of innovative chemical and mineral admixture. Nowadays, most concrete mixture contains supplementary cementations material which forms part of the cementations component. These materials are majority byproducts from other processes. The main benefits of SCMs are their ability to replace certain amount of cement and still able to display cementations property, thus reducing the cost of using Portland cement. Electronic waste or waste electronic and electrical equipment is an emerging issue posing serious pollution problems to the human and the environment. New effective waste management options need to be considered especially on recycling concepts. This paper presents the results of an investigation to study the performance of concrete prepared with E plastic waste as part of coarse aggregate. An effort has been made to detail a systematic study of compressive strength of concrete with various proportions of E-waste as coarse aggregate in concrete. The test results showed that a significant improvement in compressive strength was achieved in the E-plastic concrete compared to conventional concrete. The tests were also designed to evaluate the internal pore structure, its chemical resistance to environmental agents and reactivity with some components of the cement. The results indicated that the E-plastic aggregate up to 15% weight of the coarse aggregate and replacement of cement with fly ash (10% by weight) can be used effectively in concrete and thus results in waste reduction and resources conservation.

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SOIL STABILISATION USING WASTE PLASTIC

Abstract:-

Soil stabilization can be done in number of ways. But the stabilization using waste plastic strips is an economic method since the stabilizer used here is waste plastic materials, which are easily and cheaply available. This report presents the various tests conducted on fiber reinforced soil with varying fiber content and different aspect ratio and their results are analyzed such that it can be used in the fields. Therefore, it is of utmost importance considering the design and construction methodology to maintain and improve the performance of such pavements. In this project, plastic such as shopping bags is used to as a reinforcement to perform the CBR studies while mixing with soil for improving engineering performance of sub grade soil. Plastic strips obtained from waste plastic were mixed randomly with the soil. A series of California Bearing Ratio (CBR) tests were carried out on randomly reinforced soil by varying percentage of plastic strips with different lengths and proportions. Results of CBR tests demonstrated that inclusion of waste plastic strips in soil with appropriate amounts improved strength and deformation behavior of sub grade soils substantially. The proposed technique can be used to advantage in embankment/road construction, industrial yards etc.

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<u>COMPARATIVE STUDY OF SHEAR WALL IN MULTI-STORIED R.C.</u> <u>BUILDING</u>

Abstract:-

Looking to the past records of earthquake, there is increase in the demand of earthquake resisting building which can be fulfilled by providing the shear wall systems in the buildings. Also due to the major earthquakes in the recent pasts the codal provisions revised and implementing more weightage on earthquake design of structure. The decision regarding provision of shear wall to resist lateral forces play most important role in choosing the appropriate structural systems for given project. In the present project shear wall are provided on different position in multi storey RCC building, and seismic response of the building is checked using ETABS software. By this one will be able to choose best location of shear wall in building for best seismic performance. The response of the building is checked in terms of stiffness, storey drift, storey displacement, peak ground acceleration etc.

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WARM BITUMINOUS MIXES-A ROAD TO SUSTAINABLE PAVEMENT SURFACE

Abstract:-

The transport sector has become a heavy polluter in recent decades because of the hike in the construction of roads. Due to unavailability of sufficient funds, the construction of Rigid Pavement is pretty uncommon and hence Flexible Pavements are made. The construction of such pavements require Hot Mix Asphalt(HMA) plants for obtaining bituminous concrete which is the essential material used for the surface course in flexible pavement construction. The HMA plants causes pollution and emits certain poisonous gases like CO2, CO, NO, etc. So, in order to reduce the emissions, certain methods are used, one of which is Warm Bituminous Mixes (WBM). As the asphalt industry is getting more aware of the warm mix technology, there is an increasing need to perform research to determine the feasibility of these technologies. Some European countries are already using the warm mixture technology to be able to produce asphalt mixes at lower temperatures without significantly affecting the quality of the mixes. While the energy savings and the air quality improvements by using warm bituminous mixes are appealing. Warm Bituminous Mixes allows the producers of asphalt pavement material to lower the conventional temperature range at which the material is mixed and laid on the road.WBM solution allows reducing the working temperature of asphalt up to 30oC.Since the start of developing modern WBM technologies, a lot of experiments have been carried out to establish potential benefits of using WBM and evaluating the performance compared to traditional Hot Mix Asphalt (HMA).First research reports are from Europe from mid 90's and starting from 2002 a lot of testing and field trials have been conducted in US with publically available reports. Various tests on bitumen with WBM were conducted at different dosage content to check its property. In this study we refer many research papers on WMA and from this research paper we find that evotherm and sesobit will be used to prepare WMA. So, we are going to use this two material in different proportion for making WMA. Then, we are going to check the change in physical properties of bitumen and also the stability of same material.

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STONE MATRIX ASPHALT USING NON-CONVENTIONAL FIBERS

Abstract:-

Stone Matrix Asphalt (SMA) is gap graded mixture which contains the higher content of the coarse aggregate, asphalt as binder and fibers as the stabilizers. In the present study, we have referred different literature and concluded the Optimum Fiber Content at 0.3% which increase the stability and decrease the flow value. The fiber content will be added with the binder namely bitumen grade of 60/70 in SMA. We have performed the tests and obtained the physical properties of the conventional bitumen and aggregate.

We have studied Marshall Test and observed that 0.3% addition of coconut fiber and 0.3% addition of jute fiber with the 6% of bitumen content significantly improve the Marshall property of Stone Matrix Asphalt.

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MODE CHOICE BETWEEN ROADWAY AND WATERWAY

Abstract:-

In this study we are going to compare choice of mode between roadway and waterway, for that we are choosing the starch between Subhash bridge to Paldi. For that we are doing a different survey on this route and than after analysis. We conclude that whether it is feasible or not. Transportation modes are an essential component of transport systems since they are the means by which mobility is supported. Geographers consider a wide range of modes that may be grouped into three broad categories based on the medium they exploit: land, water and air. Each mode has its own requirements and features, and is adapted to serve the specific demands of freight and passenger traffic. This gives rise to marked differences in the ways the modes are deployed and utilized in different parts of the world. More recently, there is a trend towards integrating the modes through intermodality and linking the modes ever more closely into production and distribution activities. At the same time, however, passenger and freight activity is becoming increasingly separated across most modes.

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IMPROVEMENT OF ENGINEERING PROPERTIES OF SWELLING SOIL (BLACK COTTON SOIL) BY ADDING FLY ASH

Abstract:-

Urbanization and Transportation growth in the economy of India have led to the steep increase in the construction activities and has necessitated the implementation of infrastructure projects such as highways, railways, air strips, water tanks, reclamation etc. These projects invariably require quality earth in massive quantity. In urban areas, borrow earth is not easily available which has to be hauled from a long distance. Quite often, large areas are covered with highly plastic and expansive soil like black cotton soil, which is not suitable for such purpose. Black cotton soil has the tendency to swell when their moisture content is increased and shrink when their moisture content is decreased. The moisture may come from rain flooding, leaking water or sewer lines or from reduction in surface evapotranspiration when an area is covered by a building or pavement. To achieve the economy and for proper performance of structures it is necessary to improve the engineering properties of black cotton soil. Various stabilizers' are used such as lime, cement and calcium chloride. In the present scenario fly ash has emerged as a one of the potential admixture to stabilize the soil. In the present work an attempt is made to understand the effect of fly ash on various properties of expansive soil. Fly ash is mixed in various proportions in a parent soil. For these various proportions of fly ash different properties of soil are determined in laboratory and compared with the parent expansive soil properties. The study is carried out on various properties i.e. compaction properties, Atterberg's limit C.B.R.

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Class C Fly ash



Class F Fly ash

EXPERIMENTAL & ANALYTICAL EVALUATION OF BASE ISOLATED WATER TANK STRUCTURE

Abstract:-

The safety of a water tank will depend upon the use of seismic protection system and initial architectural and structural configuration of the water tank and design and their ductile performance under seismic loading, so in our study we use friction pendulum system which is the one type of base isolation and which is the one of the seismic protection system for protect water tank and any kind of structure. Base Isolation is the concept of protecting a water tank from the damaging effects of an earthquake by introducing some type of support that isolates it from the shaking ground. The idea behind base isolation is to detach the water tank from the ground in such a way that earthquake motions are not transmitted up through the water tank or at least greatly reduced. The main object of present study to development of a base isolation system in laboratory. The responses of a water tank with & without base isolation are measured on shake table simultaneously using the accelerometer attached to the model structures. Further the analytic model of base isolation water tank is prepared and analyses using SAP 2000. The results are verified with experiment results.

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PROCESS AND DESIGN OF WATER TREATMENT PLANT

Abstract:-

Water treatment system requires identifying and fully characterizing the source of the raw water to be treated. The common sources of feed water for water treatment projects include surface waters, well water, and municipal water. A complete and representative water analysis should then be ade. Each new system should be chosen or designed based on the prevailing water analysis, user preferences and other nontechnical parameters. Absolutely pure water is rarely, if ever, found in nature. The impurities occur in three progressively finer states - suspended, colloidal and dissolved matter. Different methods of treatment are required for their removal or reduction to acceptable limits. The flow through a unit of a drinking water treatment plant is one of the most important parameters in terms of a unit's effectiveness. In the production of drinking water, screening, plain sedimentation, coagulation and flocculation are almost universally used before filtration, except where water is treated by slow sand filtration. Clarification, which may be by settlement or flotation, is the unit step used immediately before filtration, unless direct filtration is used in cases where the source water is low in turbidity, colour and microorganisms.

The design and construction of water treatment plant for use in rural areas has been given due consideration Water samples from two sources i.e. well and stream water are collected and each of these samples is poured in the treatment plant to determine its efficiency The analysis shows that the electrical conductivity and the total dissolved solid present in the two samples of water are drastically reduced which is a function of the turbidity of the water and the water quality itself. It is therefore necessary to construct a plant for use so that the rural inhabitants would have an access to safe fresh and portable water for consumption, and at a minimal cost.

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METAKAOLINE AND ALCCOFINE AS A ADMIXTURE IN CONCRETE

Abstract:-

The durability of cement concrete is defined as its ability to resist weathering action, chemical attack, or any other process of deterioration. Durable concrete will retain its original form quality, and serviceability when exposed to environment. One of the main reasons for deterioration of concrete in the past is that too much emphasis is placed on concrete compressive strength rather than on the performance criteria. The deterioration of reinforced concrete structures usually involves the transport of aggressive substances from the surrounding environment followed by physical and chemical actions in its internal structure. The transport of aggressive gases and/or liquids into concrete depends on its permeation characteristics. As the permeation of concrete decreases its durability performance, in terms of physio-chemical degradation, increases. Therefore, permeation of concrete is one of the most critical parameters in the determination of concrete durability in aggressive environments. Since high resistance to chloride penetration can be directly related to low permeability that dominates the deterioration process in concrete structures, the resistance to chloride penetration is one of the simplest measures to determine the durability of concrete. Therefore, in this study, the rapid chloride permeability test method designated in ASTM C 1202(1997) is adopted. The advantage of adopting this rapid chloride permeability test (RPCT) test is direct cost savings could be quantified when compared to other tests and the brief procedural steps involved significantly reduce the technician time necessary to evaluate a particular concrete.

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USE OF WASTE PLASTIC IN BITUMINOUS CONCRETE MIX DESIGN

Abstract:-

Bituminous mixes are most commonly used all over the world in pavement construction. Flexible pavement constitutes over 95% of total road network in India. In 1960, Charlie Mac Donald in Phoenix, Arizona used tyre rubber as an additive in bitumen binder modification. The useful life of flexible pavement has declined due to high susceptibility to temperature variations, tendency to crack, lesser effective life. In addition to, changes in traffic details using the road. Bituminous pavements fail to give the expected service life under adverse climatic, environmental & traffic conditions. This caused to look for alternative methods of road construction in which one of major development of materials are in the area of utilization of bitumen modifiers such as waste materials such as LDPE & HDPE. In this study we refer different research paper and from this paper we find that 4% HDPE and 4% LDPE increase the physical properties of bitumen and stability of bituminous mix. We further going to use LDPE and HDPE of 1%, 2%,3% and 4% Proportion of bitumen and then we will check the physical properties and stability value. In this study we find the physical properties of neat bitumen and aggregate.

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BLACK SPOT IDENTIFICATION AND IMPROVEMENT ON SH-41 BETWEEN UNJHA TO MEHSANA

Abstract:-

Transportation contributes to the economic, industrial, social and cultural development of any country. Transportation by road is the only mode which could give maximum service to one and all. Due to the increase in population, number of vehicles is increasing day by day which leads to the increase in road network. It has been estimated that over 30,000 persons die and over 10 to 15 million persons are injured every single year in road accidents throughout the world. An accident black spot is a term used in road safety management to denote a place where road traffic accidents have historically been concentrated. It may have occurred for a variety of reasons. The present work is intended to identify various black spots (accident prone location) on SH-41 UNJHA TO MEHSANA ROAD. For this purpose, the road accident data for the years 2011, 2012 and 2013 considering accident particulars like date, location, and type of vehicle involved, number of persons injured or died are collected. The data were analyzed for different parameter and black spot were identified from the analytical process. For the identified black spot, we measured in the accident prone locations to find out the causes for the accident. Based on the result, suggestions will be provided to reduce the accidents in the future. The whole accident mitigation process is referred as black spot improvement.

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USE OF RED SAND AS A GREEN MATERIAL WITH REPLACEMENT TO NATURAL SAND IN CONCRETE

Abstract:-

The aggregate comprises a substantial portion of concrete. Including coarse and fine aggregates it is normally obtained from natural sources. Fine aggregate in India is usually extracted from River. As the demand for concrete production increases, more natural sand is needed. The need for fine aggregate should be addressed in an environmentally friendly manner, considering the diminishing sources of natural sand. Various industrial by-products, such as fly ash, ground granulated blast-furnace slag and silica fume, have been used in concrete to improve its properties. This also enables any environmental issues associated with their disposal. Another material that is available in large quantities and requiring alternative methods of disposal is the Bauxite Reside (Red Sand) from the Bayer process used to extract alumina from bauxite. Enormous quantity of Red Sand is generated worldwide every year posing a very serious and alarming environmental problem. Hence an investigation was carried out to establish its potential utilization as a sand replacement material in concrete. In addition to fresh properties of concrete containing Red Sand up to 100% by mass of Portland cement, mechanical and durability properties were determined. These properties indicated that Red Sand can be used to replace natural sand up to 100% by mass of cement to improve the properties of concrete without detrimentally affecting their physical properties. Combining these beneficial effects with environmental remediation applications, it can be concluded that there are specific applications where concretes containing Red Sand could be used.

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PROBLEM IN WATER SUPPLY SYSTEM- A CASE STUDY AT VISNAGAR CITY

Abstract:-

Next to the air, the other important requirement for human life to exist is water. Water supply system has a tremendous influence on daily life and is essential to modern society. A reliable supply of water is necessary to protect people's health, safety, and quality of life. Like many other cities in the world, Visnagar faces the problem of irregular and inadequate water supply. The whole water supply of the Visnagar city is provided by Nagar Palika.

It has been observed that lack of attention to the important aspect of Management, Operation & Maintenance of water supply system often leads to deterioration of the useful life of the systems necessitating premature replacement of many system components. As such, even after creating such assets by investing millions of rupees, they are unable to provide the services effectively to the community for which they have been constructed, as they remain defunct or under-utilized most of the time. To overcome problems in management system, a record sheet is made which can be kept as a field records and software is provided for permanent record data base. During the survey it had found total of 3 lakes which are not in use now due to its improper management, so if these lakes are maintain properly as per current situations, it not only solve the water shortage problems but also prevent the flood. Techniques are provided for finding leaks in pipelines and Repair of that. Design of groundwater reservoir is given for storage of rainwater which can be utilized during scarcity of water for various purposes. This report is intended primarily for the managers and technician in-charge of the operation and maintenance of the drinking water supply system of Visnagar Nagar Palika .The procedures mentioned in the report are intended to be guidelines for ensuring effective Operation & Maintenance of the water supply system.

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CONSTRUCTION WASTE MANAGEMENT

Abstract:-

Waste management is a fundamental component to any manufacturing or production enterprise. It is estimated that there are million tons of quarrying waste are produced in each year. The excessive wastage of materials, improper management on site and low awareness of the need for waste reduction are common in the local construction sites in India. With the urge for development and to satisfy the needs and wants, working and growth of Construction Industry is unavoidable. Over the last two decades material management, the world over has gained recognition as a science to be studied extensively and applied systematically to ensure efficiency and viability of any industry. This thesis discusses the various waste material management methods/techniques for effective waste material management for minimization of project cost and better material management through a case study of construction. Construction waste is generated throughout the construction process such as during site clearance, material use, material damage, material non-use, excess procurement and human error. The exact quantity and composition of construction waste generated throughout the projects are difficult to be identified as they are keep on changing due to the dynamic nature of the construction activities. Different stages of construction generate different types and composition of waste. Therefore the trend of waste generated throughout the construction stages need to be identified.

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BEHAVIOUR OF SPEED-FLOW RELATIONSHIP AND CAPACITY <u>ESTIMATION ON SH-41</u>

Abstract:-

The major factors affecting the Road User Costs (RUC) are the speed coupled with traffic flow characteristics at which vehicles operate on roads, which in turn determines fuel consumption and other cost components per unit distance traveled. Considering this, the Government of India has been involved in roadway capacity augmentation by building multilane divided carriageways to link major cities through the implementation of various projects, like, Golden Quadrilateral, North-South, East-West and Expressway Corridors during the last decade. These radical changes in road network coupled with radical advancements in vehicle technology have resulted in huge variations in speed - flow characteristics, which necessitated the evolution of exclusive speed-flow equations and roadway capacity for multi-lane highways. Accordingly, an attempt has been made in this Paper to explicitly study the speed- flow characteristics on varying types of multi-lane highways encompassing four-lane, six-lane and eight-lane divided carriageways in plain terrain. From the collected data, free speed profiles and speed - flow equations for different vehicle types for varying widths of multi-lane highways in the country has been developed based on traditional and microscopic simulation models and subsequently roadway capacity has been estimated. Further, the lane change behavior of different vehicle types has been extensively studied and its impact on roadway capacity has been estimated on multi-lane highways. Finally, the Design Service Volume for varying types of divided carriageways including four-lane, six-lane and eight-lane has been evolved with reasonable degree of authenticity under the prevailing heterogeneous traffic conditions on multilane highways in India. In this study we are going to show that the behavior of speed flow relationship and capacity estimation on SH-41. For that we are choosing the highway road between Uniha to Mehsana. For that we are doing a different survey on this route and then after analysis. We conclude that whether it is feasible or not.

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EXPERIMENTAL & ANALYTICAL EVALUATION OF BASE ISOLATED BUILDING STRUCTURE

Abstract:-

Among the natural calamities, earthquakes are the most destructive, in terms of loss of life and destruction of property. The rising frequency of earthquake has made it imperative to focus our attention on all aspects of pre-disaster preparedness from seismic studies as if we are standing on Earth earthquakes do not harm us much, but if we are standing inside a building then we do need to worry as the brutal impact of earthquake is seen on the buildings. So we do need to study the building and for that the structural aspects are to be taken into consideration. The one type of base isolation system is Friction Pendulum Bearing in which the superstructure is isolated from foundation. This study represents development of a single, double sliding surface and fixed model with concept of friction pendulum in laboratory. The study presents development of a base isolation system to physically demonstrate the concept of Friction Pendulum Bearing in the laboratory for earthquake engineering education. Single and double concave FP bearing allows for significantly larger displacements for building structure. Base isolation building structure is prepared and analyses using SAP2000. The results are verified with experimental results.

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VOICE RECOGNITION BOT WITH IMAGE PROCESSING

Abstract:-

This project is based on HRI (Human-Robot-Interface) & HCI (Human-Computer-Interface) technologies. Interacting with the robot, which connotes some anthropomorphic (human-like) appearance using Natural Language (NL), is one of the most prominent technologies in the field of "Artificial Intelligence (AI)". This report covers almost all the parameters which are to be taken into consideration while designing "Speech Recognition (SR)" based system. Here we have chosen mobile robot because this type of robot is getting popular as a service robot in social context, where main challenge is interacting with the human. Two types of approaches has been chosen for Voice User Interface (VUI) implementation-1) Using Hardware SR system 2) Using software SR system & this has been included in chapter 1. Here Hybrid architecture has been used for general robotics design & for communication with the SR system, & also created grammar for the speech, which is chosen for the robotics activity in the predefined arena. Chapter 2 comprises of various complex algorithms like HMM, TOR, cross-correlation, autocorrelation, Viterbi decoding & many more DSP based algorithms for speech processing and synthesis. One of the important goal of this project is to introduce suitable interface for novice user. Chapter 3 contains the analysis of speech, where various parameters of speech as well as speech models like Filter-bank & LPC are included. In chapter 4, for the analysis results of different speech parameters as well as image processing parameters platform like MATLAB 2013 is used. Also various platforms like VB.NET, MY-SQL, JAVA and various microcontrollers / DSP processors like low power Atmega128, Atmega32, ADSP-2100 family, HM2000 etc. can be used for implementing Speech Processing and Synthesizing. In last phase of this project, an image processing module (IP) will be implemented & interfaced with the speechrecognition module, which will add the image detecting capability to the existing SR based mobile robot, which will enhance its applications and usability to great extend

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EYE MOVEMENT BASED WEAPON CONTROL SYSTEM

Abstract:-

During our training period, we learned about new software like AVR, MATLAB, which enriched our knowledge of programming. This project requires the basic knowledge of electronics and soft skills. Eye movement based control military application is basically based on the eye-movement. Eye position is tracking and at the same time the application is moving as per the position of the eyes. Main aim behind to make this project is to make our military system technically advance. Basically using this concept we can make other application like control of home appliance or wheelchair controlling. So basically such type of applications are used for the Physically handicapped people. This application is based on MATLAB and controlling of Motors using ATMEGA-168.Eye tracking is technique where by an individual's eye movements are measured. So based on eye movement, application movement controlled using microcontroller.

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SOLAR POWERED CAMERA EQUIPPED UNMANNED AIR VEHICLE

Abstract:-

Venturing into a very technical project such as this was very bold daring, as some would say, it was a difficult project. Nevertheless there was a very strong enthusiasm and willpower to proceed and see the project through to the end. There was probably an anxiety and thrill to undertake a project which by every indication was likened to rocket science. Assuredly many would agree a project of the likes of rocket science is always exciting or at least sounds so, which means it might also have been a good motivation in this case. The successful implementation of each phase required programming, mathematical and engineering skills and wit. This meant that the project could be considered farfetched, notwithstanding the fact that each phase mentioned could by itself constitute a separate project. However, the system sees several possible and potentially save civilian applications in disaster regions as an early warning system. The potential bestowed by such a successful project, leaves a feeling of satisfaction for creating something difficult but very useful and very affordable.

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ARM ROBO FOR FARMING

Abstract:-

We would like to conclude during this project as a very great and enriching experience to interact with the interesting field of robotics and their application

During project period, we learned about new software like bascom, proteius, which enriched our knowledge of programming. This project requires the basic knowledge of robotics parts and their different parameter

During the first part of our project, we made learned about the robotics arm's, and degree of freedom. During this first part we also study about the types of joint and kinematicts of robot.

During the second part we study about ATmega 8 AVR microcontroller and also it's pindiagram, we design the circuit block-diagram of our project.

During the third part we study about stepper-moter for moment of arm's and also study about the sensor for sense the object. The result of this project we get knowledge of robots and their different application.

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Internal Guide:-

Asst. Prof. Mr. Sacheen B. Patel



EARTHQUAKE DETECTION INSTRUMENT USING MICROCONTROLLER

Abstract:-

An earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves. Earthquakes are recorded with a seismometer, also known as a seismograph. The moment magnitude of an earthquake is conventionally reported, or the related and mostly obsolete Richter magnitude, with magnitude 3 or lower earthquakes being mostly imperceptible and magnitude 7 causing serious damage over large areas. Intensity of shaking is measured on the modified Mercalli scale. Here we are presenting Microcontroller based An Earthquake Detection instrument to reduce its destructive losses by providing warning system. This instrument will first sense the vibration caused by earthquake event and enable alarming system using microcontroller system. Thus I conclude our training with a very nice and wonderful experience gained at k R system & services - 51, Vatva, Ahmedabad under a peaceful kind and friendly environment.

Student Name:-

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STEGANOGRAPHY – INFORMATION HIDING IN DIGITAL IMAGE

Abstract:-

The goal of the "Steganography- Information Hiding in Digital Images" is The Internet as a whole does not use secure links, thus information in transit may be vulnerable to interception as well. The important of transmission is being an issue now days. Some solution to be discussed is how to passing information in a manner that the very existence of the message is unknown in order to repel attention of the potential attacker. Besides hiding data for confidentiality, this approach of information hiding can be extended to copyright protection for digital media. In this research, we clarify what Steganography is, the definition, the importance as well as the technique used in implementing Steganography. We focus on the Least Significant Bit (LSB) technique in hiding messages in an image. The system enhanced the LSB technique by randomly dispersing the bits of the message in the image and thus making it harder for unauthorized people to extract the original message. Here the language used is embedded 'c' and MATLAB 7.4 version and the LCD is used for monitoring the status of the project. Moreover the project is advantageous.

Student Name:-

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SENSOR BASED SOLAR TRACKING

Abstract:-

Solar energy is rapidly gaining notoriety as an important means of expanding renewable energy resources. As such, it is vital that those in engineering fields understand the technologies associated with this area. My project will include the design and construction of a microcontroller-based solar panel tracking system. Solar tracking allows more energy to be produced because the solar array is able to remain aligned to the sun. This system builds upon topics learned in this course. A working system will ultimately be demonstrated to validate the design. Problems and possible improvements will also be presented. The main objective of this project is development of an automatic solar tracking system whereby the system will caused solar panels will keep aligned with the Sunlight in order to maximize in harvesting solar power. The system focuses on the controller design whereby it will caused the system is able to tracks the maximum intensity of Sunlight is hit. When the intensity of Sunlight is decreasing, this system automatically changes its direction to get maximum intensity of Sunlight. LDR light detector acts as a sensor is used to trace the coordinate of the Sunlight by detecting brightness level of Sunlight. While to rotate the appropriate position of the panel, a DC-geared motor is used. We have also used 555 timer IC for detecting LDR resistance changes, motor driver and microcontroller as a main processor. This project is covered for a single axis and is designed for low power and residential usage applications. From the hardware testing, the system is able to track and follow the Sunlight intensity in order to get maximum solar power at the output regardless motor speed.

Student Name:-

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SUBMERSIBLE PUMP CONROL USING GSM MODEM

Abstract:-

We would like to conclude this project as a very great and enriching experience to interact with the interesting field of Microcontroller and GSM communication. During our project, we learned about GSM modem working and Basic C programming. This project requires basic knowledge of microcontroller interfacing and basic C language. In the first part of our project we learned and searching about different topics and component of my project and also do some simulation in Proteus like LCD interfacing, Relay interfacing, GSM modem interfacing with microcontroller. Result of this task not only improve our knowledge but also our personality skill also develop because of great effort of respected faculty members they guide us very well and teach us how actually project doing in proper manner. Thus I conclude our first part of our project is very nice and wonderful experience under a peaceful kind and friendly environment of our college.

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PLC BASED MOTOR SPEED CONTROLLING FOR PRODUCT COUNTER

Abstract:-

From this Project we conclude that how can we control the three phase induction motor by system(computer) by using components like PLC, SCADA, DRIVES, INDUCTIVE TYPE SENSOR, MCB SWITCH, AND COMMUNICATION CABLE. We also conclude that there are many type of different company's which manufacturer of PLC like Alenbradely, Siemens, Schneider, Delta, ABB, Omron, Mitsubishi, etc. These companies are also leading manufacturer of SCADA software like winc, Rs view, In touch, ABB Codesys, Mx developers, etc. We also learned that about different types of configured AC Induction Motors. We learned that this project system is applies in different industries like chemical factories, power plants, Food and milk manufacturing factories, Automobile manufacturing factories, Pharmaceutical Industries, Oil and Petroleum industries and many more like these. By using this project system we can get more efficiency of major components at primary base like motors, than other machineries like Boilers, Transformers, and Generators etc. By using this project system there is a becomes large decrement in time consumption in any process of manufacturing or any other by manually control system. This system's major benefit is that process in charge and production manager can control the production system form their desired computer system, and the other beneficial thing is that production manager can see the work of the process in charge at any time, but process in charge can't see the manager's allocated separate part, by this system's locking features. This whole system is also able to run in automatic mode by giving proper programming. This thing is very beneficial for which industries work in shift, they can apply automatic mode in night time and that's why require less man power. It gives them large benefit.

Student Name:-

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Internal Guide:-



BANK LOCKER SECURITY SYSTEM BASED ON GSM AND RFID

Abstract:-

The main goal of this project is to make a locker security system using RFID and GSM technology which can be organized in bank, secured offices and homes .In this system only authenticated person can recover money from locker. We can make a locker security system based on RFID(Radio -frequency identification) and GSM technology containing door locking system using RFID and GSM technology which can activate, authenticate user to open the locker .The main advantage of using passive RFID and GSM is more secured than other systems .This system consists of microcontroller ,RFID reader , GSM modem, keypad and LCD .The RFID reader reads the ID number from tag and sends to the microcontroller where it checks whether he or she is valid person or not .If the ID number is valid then microcontroller allow to person entering the password through keypad. The microcontroller will verify the passwords entered by the keypad and passwords store in microcontroller. If these two passwords are matched then locker will be opened otherwise it will remain in locked position. At that time This system is more secured than other systems because only authentic person can open the locker.

Student Name:-

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Internal Guide:-

GSM BASED DIGITAL NOTICE-BOARD

Abstract:-

The main aim of this project will be to design a SMS driven automatic display board which can replace the currently used programmable electronic display. It is proposed to design receiver cum display board which can be programmed from an authorized mobile phone. The message to be displayed is sent through a SMS from an authorized transmitter. The microcontroller receives the SMS, validates the sending Mobile Identification Number (MIN) and displays the desired information. Started off as an instantaneous News display unit, we have improved upon it and tried to take advantage of the computing capabilities of microcontroller. Looking into current trend of information transfer in the campus, it is seen that important notice take time to be displayed in the notice boards. This latency is not expected in most of the cases and must be avoided. It is proposed to implement this project at the institute level. It is proposed to place display boards in major access points. The electronics displays which are currently used are programmable displays which need to be reprogrammed each time. This makes it inefficient for immediate information transfer, and thus the display board loses its importance.

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Internal Guide:-



ARM CONTROLLED ROBO-ARM USING ZIGBEE

Abstract:-

In today's world there is an increasing need to create artificial arms for different in human situations where human interaction is difficult or impossible. They may involve taking readings from an active volcano to diffusing a bomb. Here we propose to build a robotic arm controlled by natural human arm movements whose data is acquired through the use of accelerometers and flex sensors. For proper control the flex sensor is used for finger movements. The development of this arm is based on ATmega32 platform along with a personal computer for signal processing, which will all be interfaced with each other using zigbee wireless communication. Finally, this prototype of the arm may be expected to overcome the problem such as placing or picking hazardous objects or non-hazardous objects that are far away from the user.

Student Name:-

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Internal Guide:-



AUTOMATION OF CHEMICAL MIXING PROCESS USING PLC AND HMI

Abstract:-

The automation in the chemical mixing process is to provide the maintain quality and quantity, increasing productivity, reducing cost, increasing safety in work place and the time saving. This process are using in the various field. Such as Chemical field, Pharmaceutical field to make the syrup, Cold drinks system, Color paint system, Beverage system.

Through this automation of mixing process, we provide a better solution in different industries. Automatic chemical mixing process is based on programmable logic controller (PLC) & Human machine interface (HMI). The process of chemical mixing are monitoring & controlling by the human machine interface (HMI). This is connected to the programmable logic controller (PLC) by means of communication cable.

Student Name:-

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Internal Guide:-



Asst. Prof. Piyush P. Patel

GLOVE BASED COMPUTER MOUSE

Abstract:-

One of the important parts of our body is our hand which is most frequently used for the interaction in Digital Environment and thus complexity and flexibility of motion of hands are the research topics. To recognize these hand gestures more accurately and successfully data glove is used. Here, gloves are used to capture current position of the hand and the angles between the joints and then these features are used to classify the gestures. The gestures classified are categorized as clicking, rotating, dragging, pointing and ideal position. Recognizing these gestures relevant actions are taken, such as air writing and 3D sketching by tracking the path helpful in virtual augmented reality (VAR). The results show that glove used for interaction is better than normal static keyboard and mouse as the interaction process is more accurate and natural in dynamic environment with no distance limitations. Also it enhances the user's interaction and immersion feeling.

We designed and created a 3D Wireless Mouse implemented on a glove. It is able to track each finger and palm's orientation with minimal delay, and it is able to transmit the calculated orientation data to the computer wirelessly. It has four main parts, on each finger there is a Finger Board. They are connected to the Main Board which sits on the palm. The Zigbee is stacked on top of the Main Board. The receiver end is consisted of a Receiver Board and the Zigbee. Although we proposed accurate positional tracking of each finger, we later find it hard to accomplish with the limited time and current performance of the system. Further optimization on the stability of the orientation data needs to be made before we can attempt positional calculation. Nevertheless, our design on orientation is very successful. We hope to improve the system in terms of stability and even lower latency in future work.

Student Name:-

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SPEECH CONTROLLABLE HOME APPLIANCES

Abstract:-

The main purpose of the study was to develop an automatic speech recognizer. Home appliances such as A.C, Refrigerator, PC, Fan etc. can be controlled by microphone which is connected with server & server gives command to devices. server based on microcontroller system. Reliable speech recognition is a hard problem, requiring a combination of many techniques; however modern methods have been able to achieve an impressive degree of accuracy. This project attempts to examine those techniques, and to apply them to build a simple voice recognition system. The project was started with three goals in mind. First, to be able distinguish 'yes' from 'no'. Second, to be able to recognize a vocabulary of 20 words, spoken individually, And third, to be able to recognize combinations of two or more words from this vocabulary spoken in close succession. The project is implemented in Matlab and was successful in achieving the first goal. It has been able to differentiate between a spoken 'yes' and a spoken 'no' with 100% accuracy among 24 samples taken from 8 different people. The method used is a simple one, involving a simple count of the frequency of zero crossings, but it is quite applicable to the voice recognition problem in general.

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HOME/INDUSTRIAL AUTOMATION SWITCH BOX & INTERFACE DESIGN

Abstract:-

We would like to conclude this project as a very great and enriching experience to interact with the interesting field of Microcontroller and relay card. Main purpose of the project is to control all the appliances of home through one smart relay switch box. In this we can implement the semi PLC based your own design. In home automation, we can remove existing switch board in our house and it can be replaced by this automation system. Main purpose of industrial automation is one can operate industrial equipment's at one place only. Result of this task not only improve our knowledge but also our personality skill also develop because of great effort of respected faculty members they guide us very well and teach us how actually project doing in proper manner. Thus I conclude our first part of our project is very nice and wonderful experience under a peaceful kind and friendly environment of our college.

Student Name:-

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Internal Guide:-

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UTILIZATION OF RENEWABLE ENERGY SOURCE

Abstract:-

The Aim of the project utilizes the solar energy and wind power as resources for mankind Renewable Energy Source. Offers energy efficiency exist over wide geographical area, in contrast to other energy sources using of solar energy to generate electricity. Our project is based on solar tracking system and converting wind energy into the electrical energy. To realize this project, an extensive research and studies have to be done on solar panel, solar tracking system and conversion from mechanical to electrical energy. It is crucial to find out right program and source code to interface all that. Solar tracking system is used to convert light into electrical with following the direction of the sun. As the use of this technology grows, it would the biggest revolution in the world of energy conversion and we can also save the energy sources using this technology.

Student Name:-

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Internal Guide:-

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AUTHENTICATION AND SECURITY SYSTEM FOR INDUSTRIAL AREA

Abstract:-

This project is aimed at making an embedded system, a combination of hardware and software by making the use of RFID technology and VB programming language. It is a system which can be controlled without human interference and also manually controlled in case of failure .This project aim at detecting (identifying) the vehicles automatically. It also makes the use of software program to handle the database which is updated every time. We can have the record of each and every vehicle along with their ID number so that it can be referred later when ever required. All the parts of the project that were implemented work correctly and can be easily demonstrated.

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Internal Guide:-

Asst. Prof. Sacheen B. Patel

DESIGN AND DEVELOPMENT OF AIR CASTER

Abstract:-

Material handling equipment are widely used in industry to handle the heavy process equipment's like boiler, end shield and for movement of heavy materials and machineries.

This dissertation work contributes for the development of a material handling equipment, which is use for movement of heavy loads so, for this application, air caster is designed because of its feature like easily movable heavy loads and positional accuracy in movement.

The present work includes design and modeling of 100kg air caster. The components of air caster like base plate, load landing plate form, air bag, supporting rings. The selection of the sub components like connectors, nipples, hose pipe, elbows, five way air junction, fasteners are taken standard.

Also 3D components and assembly drawing of air caster have been prepared by using auto desk inventor software.

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Internal Guide:-

Asst. Prof. S. G. Patel



IMPROVE THE EFFICIENCY OF HEAT EXCHANGER IN OIL COOLER

Abstract:-

For Shell-And-Tube Oil Cooler With Water Cooling, The Heat Transfer Resistance On The Shell Side Is 80% Of The Total Heat Transfer Resistance Of The Cooler ,So Oil Heat Transfer Resistance Is Controlling .It Is A Key Factor To Increase Heat Transfer Coefficient Of Oil On The Shell Side For Making High Performance Oil Cooler. Two Measures to Be Taken to Increase Heat Transfer Coefficient of Oil, Are First to Use Highly Effective Enhanced Tube and Second to Use Novel Shell Side Baffle Geometry or flow rate of fluid.

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Internal Guide:-

Asst. Prof. D. M. Patel



IMPROVEMENT IN MATERIAL HANDLING SYSTEM IN GINNING INDUSTRY

Abstract:-

Material handling is field concerned with solving the problem involving the movement, storage, control and protection of material, goods and product throughout the processes of cleaning and manufacturing.

Proper material handling offers greater efficiency, reducing material wastage, minimize industrial accidents, increasing productivity which results in good manufacturing.

It has been estimated that average material handling cost is roughly 20-40% of the total production. So we had decided to make modification in this system. We have decided to make modification present handling system. We are going to use automatic arrangement of trolley system which will give us almost double production. We will provide PLC programming for automation. This concept will reduce the price in accordance of production. It will used widely in the mass production industry.

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ANALYSIS AND PARAMETRIC OPTIMIZATION OF PLASMA ARC CUTTING (PAC) WITH MATHEMATICAL MODELING

Abstract:-

In last forty years there is tremendous research in machining and development in technology. With increase in competition in market and to attain high accuracy now a days the nonconventional machining are become lifeline of any industry. One of the most important non-conventional machining methods is Plasma Arc Machining. Its high accuracy, finishing, ability of machining any hard materials and to produce intricate shape increases its demand in market.

In project work literature has been studied in context to parametric Optimization of Plasma Arc Cutting Machine. In order to attain target and optimum results, Taguchi method employed. The appropriate orthogonal array has been selected as per number of factors and there levels to perform minimum experimentation. Experimental analysis of plasma cutting performs to the optimization of the machining parameters of Plasma Arc Cutting Machine to significantly improve optimum level of Material Removal Rate (MRR) and Surface Roughness (Ra) in the Plasma Arc Cutting

The work pieces of hot die tool steel (AISI H11 alloy steel) materials were used for experiment purpose. The optimum value has been determined with the help of main effect plot and ANOVA table. The Regression equation for Surface Roughness (Ra) and Arc gap has been developed with the help of Minitab 15 Software. Grey Relational Analysis method used to find Optimum Parametric setting for PAC of H11. GRC and GRG value of experiment will find and its higher value of GRG shows that the optimum parametric Setting.

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Internal Guide:-





THE AUTOMATION APPLIED ON BRICK PRODUCTION USING POWDER METALLURGY CONCEPT

Abstract:-

After literature surveys following conclusions are extract which are given below:

- Powder Metallurgy and brick production have similar processes
- Brick production process is more time consuming as well as more costly due to presence of manual work.
- Powder metallurgy process give good production rate in same reparative nature product and also give less defects and good surface finish to product.
- These two process are simulating each other with using automation give more advantages to brick production.

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DEVELOPMENT OF VERTICAL AXIS WIND TURBINE - THE WAY TOWARDS FUEL REPLACEMENT OF DIESEL PUMP

Abstract:-

This project is a combination of mechanical engineering and sustainable development in developing countries. Wind as a source of energy is being used from very long time. It has gained more significance in the current age of energy crisis. Blade is the most important component of a wind turbine which controls the performance of a wind turbine and design of other components attached to it. The Wind Powered water pump using vertical axis wind turbine provides the efficient utilization of wind energy. The coupling of the wind rotor with the pump can be used to carry water from one place to another in salt pans. Calculations have been made on the energy available in the wind and then energy analysis was performed to see how much wind speed is required for the system to work. If wind speed is low, the windmill can be adjusted by placing the connecting rod closer to the rotation centre where it requires less work to function. As a result of that, the volume of water per Stroke will decrease and it will take longer time to fill the tank. Various Torque calculations are carried out here for the actual determination of the gear ratio for the gear mechanism and it seems to be utilizing the car Differential with the ratio of 1:5 for transmitting the wind power to gear shaft. Various alternatives have been chosen for the pump like centrifugal pump, Barrel Pump and Piston Pump, among them the pump is to be selected which would able to pump the water efficiently. Building the irrigation system was not part of this project. In this project diesel pump for water transmission is replaced with the newly arising technology with wind.

Key Words: Wind power, Stroke, Torque, Differential, Barrel Pump, Piston Pump

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DEVELOPMENT OF OSCILLATING BED SOLAR DRYER

Abstract:-

We manufacture optimum quality solar dryers which are the best ways to dry the fruits, spices etc easily and without any power consumption. There is no air pollution when you dry your products under this solar drying shed, which is very cheap and efficacious. Our solar dryers are ideal for all agriculture products. Many types of solar dryers are there in present scenario.

Different types of solar dryers are studied in this work. Different patents and reserach papers are surveyed related to the solar present work. Different corelations related to nusselt, reynold, overall heat transfer coefficient are studied and forced air heater are studied, the calculation are done for $1m^2$ size absorbed plate collector is consider.

We will oscillate the collector bed to face the radiation perpendicularly and check its efficiency.

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Parmar Jalap(10me48)

Prajapati Mehul(10me29)

Modi Ravi(10me47)

Internal Guide:-

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360° ROTATING CONVEYOR BELT WITH UP-DOWN MECHANISM

Abstract:-

Bulk material transportation requirements have continued to press the belt conveyor industry to carry higher tonnages some distances and more diverse routes. In order keep up, significant technology advances have been required in the field of system design, analysis and numerical simulation. The application of traditional components in non-traditional applications requiring horizontal curves and intermediate drives have changed and expanded belt conveyor possibilities. Examples of complex conveying applications along with the numerical tools required to insure reliability and availability will be reviewed. Although the title of this presentation indicates "new" developments in belt conveyor technology will be presented.

What is also "new" are the system design tools and methods used to put these components together into unique conveyance systems designed to solve ever expanding bulk material handling needs. In industry for material handling many fixed conveyor belt is required. So the installation and maintains charge of fixed conveyor belt is increased for solution of this problem. New creation is 360° rotating flexible conveyor belt.

This conveyor belt is use in place of fixed conveyor it use any place like industry, warehouse, food industry any ware easily. And the installation and maintains charge is decreased place of number of fixed belt conveyor.

So in all matter it is the better than fixed conveyor belt.

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Internal Guide:-

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CLEANING OF SOLAR PLATE BY AUTOMATION

Abstract:-

In modern days, all area of industries are going to like automated, economically and environment freely to reduce the global warming problem. But, in production of metal by molding process no any wide change. Our main concept for this project is clean the solar plate by automation system itself. Which clean the whole solar plate by itself, construct the automation system which clean the solar plate in few time we and lowest cost. So, project background is clean the solar plate by automation. The solar plate cleaning is done by different methods like manual workers, either help of the mop, spraying water on the solar plate etc, but our system is clean the solar plate by automation system.so solar plate efficiency is increase and the life of the solar plate is increase.

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Internal Guide:-

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DEVELOPMENT AND DESIGN OF RADIAL AIR ENGINE

Abstract:-

A compressed air engine is primarily an engine that uses the energy stored compressed air to do work. Here the expansion of compressed air stored at high pressure in a storage tank occurs in the engine cylinder to move a piston doing mechanical work. The main application of this engine is in automobile industry where the potential energy of the compressed air is converted into kinetic energy of the linear motion of piston and rotary motion of the crank and the crank shaft. This motion is transferred to the wheels using usual transfer mechanisms .As the working fluid is compressed air there is no requirement of any other fuel other than some amount of electrical energy for compression of air in an electric compressor .The engine is free of emissions at the tailpipe as the only exhaust is air and is environmental friendly. Even though it is below its counterparts in power, comfort and performance, its supporters believe that altered versions of this engine are to dominate the automobile industry in future.

The Radial Air Engine is an eco-friendly engine which operates with compressed air. A Radial Air Engine uses the expansion of compressed air to drive the pistons of an engine An Radial Air Engine is a pneumatic actuator that creates useful work by expanding compressed air. There is no mixing of fuel with air as there is no combustion.

A Radial Air Engine makes use of Compressed Air Technology for its operation The Compressed Air Technology is quite simple. If we compress normal air into a cylinder the air would hold some energy within it. This energy can be utilized for useful purposes. When this compressed air expands, the energy is released to do work. So this energy in compressed air can also be utilized to displace a piston.

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SEMI AUTOMATIC PRINTING MACHINE

Abstract:-

For a student of engineering the project is the only subject where he can activate himself as an engineer. Student not only develops his skills but also learns the correct approaches to work as an engineer. Moreover, he gets familiar with the market.

In the early of 90's the hand operated machine was used for the printing instead of the newer innovation of the Semi automatic Printing Machine and those machines are called as the Batch Printing machine.

The Semi Automatic Printing Machine contains a very simple mechanism with Gear Box, Crank & Lever Shaft and Rack & Pinion. With use of this machine we can get the faster production and reduce the human work.

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Internal Guide:-

Asst. Prof. P.R.Mistry



DESIGN AND DEVELOPMENT OF BALL BURNISHING TOOL

Abstract:-

The present project work deals with the design and development of ball burnishing tool.

The study aims is to produce smooth surface finish without removing the materials on the work piece and gets better hardness on the work piece without any extra process.

Burnishing is an economical process where skill workers are not required.

This process can be effectively used in many fields such as aerospace industries, automobiles manufacturing sector, production of machine tools, hydraulic cylinder etc....

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Internal Guide:-

Asst. Prof. M. D. Patel





DEVELOPMENT OF AUTO GEAR TRANSMISSION WITH USE OF MAGNETIC CLUTCH

Abstract:-

In this study, a gear shifting mechanism is automatic which make the gear transmission process faster and less destructible for the driver using magnetic clutch and relay and DC motor. The present gear transmission (CVT-continues variable transmission) in motorcycle is fully mechanically controlled and costs very high and it is not suitable for small displacement engines. But the gear transmission mechanism designed makes driving easier and to achieve efficient driving. This new device must be reliable, has small dimensions, economical and low maintenance cost. This project aims to improve the gear shifting process with a suitable control mechanism to implement in clutch featured motorcycles. According to the suggested gear shifting method, the relays controller selects the transmission gear as per the speed of the vehicle without any human interference and more comfortable.

Keywords: Automatic gear transmission, Magnetic clutch, DC motor, two way relay, wiper motor.

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TO STUDY AND DO THEORETICAL ANALYSIS OF COMPACT HEAT EXCHANGER

Abstract:-

This project analyzes the heat transfer process involved in the operation of an automotive radiator. The analysis of a radiator encompasses nearly all of the fundamentals discussed in a heat transfer class, including the internal and external fluid flow through a heat exchanger and the design and analysis of heat sinks and exchangers. The theoretical heat exchanger investigation begins with analyzing the internal fluid flow through the radiator's circular tubes, yielding the convective heat transfer coefficient for water. The external fluid flowing across the radiator tubes and fins is then analyzed to find the convective heat transfer coefficient for the air. The heat sink design of the radiator must then be analyzed using the Effectiveness-NTU method to find the theoretical effectiveness, overall heat transfer rate of the radiator, and outlet temperatures of both air and water. This project topic is specifically designed to integrate the numerous areas from the subject of heat transfer. Through the many challenges and successes met during this project. This project provided an in depth understanding of the theoretical knowledge learned in heat transfer and offered a chance to use this information to solve real world problems.

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AN IMPROVEMENT A ND DEVELOPMENT OF MOKSHDA - GREEN CREMATION SYSTEM

Abstract:-

In present era engineers are trying to reduce the use of conventional sources but there are still some places like Hindu Crematoria where we can't avoid using wood. No one is paying attention on reducing the carbon coming out from crematoria. We cannot change the rituals of Hindu religion but can modify it by using modern techniques. We selected this project to separate carbon content from exhaust of crematoria and to make cremation environment friendly. This project will reduce pollution up to 75% as compare to normal cremation.

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POWER GENERATION FROM SPEED BREAKER

Abstract:-

In this work, prospect and feasibility of power generation by using speed breakers has been investigated. In this project a mechanism to generate power by converting the potential energy generated by a vehicle going up on a speed breaker into kinetic energy. This arrangement is made one rotation as soon as the vehicle moves over the speed breaker and has been increased using gears. After the production electricity, a storing unit has been used to store the generated electricity during the day and will be used during the night. Two prototypes have made using rack and pinion gear, spur gear, springs and generator .From which a considerable amount of energy is obtained. Nonetheless the cost of the prototype was inexpensive which proves the feasibility of this project and the idea can be applied on heavy traffic roads. Further investigation is being carried on to introduce the technology for practical approach.

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