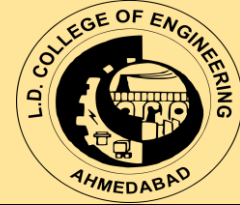




L.D. COLLEGE OF ENGINEERING AHMEDABAD
CIVIL ENGINEERING DEPARTMENT
KAIZEN-2020: PROJECT ABSTRACTS



**A
COMPILATION
OF**

Civil Engineering Project Abstracts: 2019-20

Presented at

“KAIZEN-2020: ONLINE PROJECT PRESENTATION”

Organized by

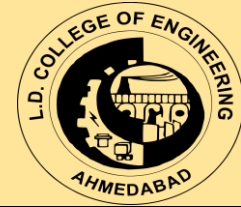


**Civil Engineering Department,
L. D. College of Engineering,
Ahmedabad, Gujarat**

During: 6th April -8th April 2020

Organizing & Project Committee:

- Dr. R.B. Khasiya, Prof. & Head, Civil Engg. Dept.
- Prof. S.C. Rathod, Asst. Prof., Civil Engg. Dept.
- Prof. Utkarsh P. Nigam, Asst. Prof. Civil Engg. Dept.
 - Prof. S.S.Dixit, Asst. Prof., Civil Engg Dept.
 - Prof. J.S. Kamble, Asst. Prof., Civil Engg. Dept.



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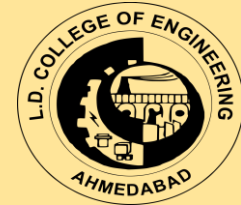
CIVIL ENGINEERING DEPARTMENT

ABSTRACT OF CIVIL ENGINEERING PROJECTS (2019-20)

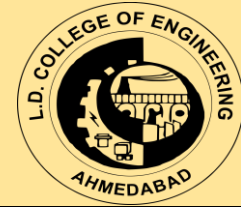
S. No.	Project Title	Guide	Enroll no	Student Name	PROJECT ABSTRACT
1	Case Study of Dharoi Dam and Flood Control by Innovative Techniques	Prof. Z J Chovatiya	160280106094	Prajapati Pragnesh Vishnubhai	Flood control methods are used to reduce or prevent the detrimental effects of flood waters. Flood relief methods are used to reduce the effects of flood waters or high water levels. Nowadays, there are many innovative techniques used to control flood and protect properties and lives. These techniques can be categorized in two ways. (1) Flood control at larger scale using flood control structures. (2) Flood control at smaller scale using different products. Although the dam has designed to effectively control flood, it is sometimes not adequate to cope with heavy rainfall. In the past, there has been times when dam got very large amount of water because of the rainfall in monsoon season. At that time, the inflow of water is in such a quantity so that the reservoir get flooded even though all the gates were fully opened. To counteract such a situation in future, It can be decided to forecast the flood and find an innovative technique so that to minimize the disaster of flood and even control the flood if possible. From the hydrograph it can be predicted that there is a chance of occurrence of maximum discharge in the year between 2027 to 2030. For control of flood there may be provision of a Thames barrier of a stretch 157.4 m across river sabarmati and khedbrahma. Flood can also be controlled at small scale using different products.
			160280106073	Patel Kartikkumar Ashokkumar	
			160280106120	Vibhakar Kishan	
2	Analysis of trip attraction rate for commercial land use	Prof. R N Shukla	170283106004	Chauhan Mohit Mahendrabhai	Trip attraction is fundamental in planning of transportation facilities. It is important to the traffic engineering and urban in considering the impact of new development such as office complex, shopping center and residential development. One of the
			170283106006	Dudhrejiya Maya	



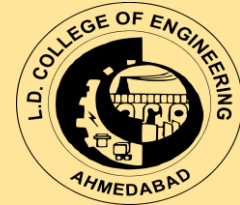
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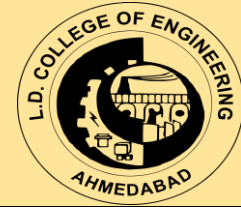
			150280106114	Pragneshbhai Suthar Akashkumar Vasantbhai	emerging issues in town planning is that of the effects of the localization of business and services activities on mobility due to high population or more urbanization. In metropolitan city like Ahmedabad traffic, Parking, signaling type problems are occur in congested area like at ALPHA ONE MALL AND RANIP D-MART, etc. So, for solving this type of problem we are collecting data for calculation and analysis of average shopping trip attraction rate.
			170283106026	Suthar Rajeshkumar Mahadevbhai	
			170283106030	Vala Jaysinh Kanaksinh	
3	Lean construction (Productivity improvement by implementation of lean construction tools)	Prof. P K Lalwani	160280106055	Dhruv Mistry	By doing this research, we come to conclusion that by implementing lean construction method we can see massive change in several parameters like cost time and quality. Also we should keep in mind that this result is partially true because of every project is different in its own nature so there is might chance that conclusion of that particular project defer from the result we get by this study but on the positive note result should always in the manner that increase the value of project. Other foreign countries already implemented Lean construction tools in their management and also rewarded by fruitful results. Now is the time for India to start practicing Lean construction methods in construction sector and increase the value. This research is the small effort done by students to make visible effects of Lean construction methods in construction sector.
			160280106083	Sunny Patel	
4	Design of water supply system for a virtual city	Prof. P K Lalwani	160280106091	Jimmy Prajapati	Water is the Primary Necessary for survival from prehistoric time. Mankind has preferred to settle near the sources of water .All around the Globe; human civilization has developed on the fertile banks of river & large natural Lakes. Water Supply is the Provision of water by Public Utilities, Commercial, organizations, community endeavors or by individuals, usually via a System of pumps and pipes. Irrigation is covered separately. A water supply Network is system of engineer hydrologic & hydraulic components which provide water supply. Water supply systems get water from a variety of locations after appropriate treatment, including Ground Water (aquifers), surface water (lakes and Rivers) ,& the Sea through desalination. The Water treatment steps
			160280106066	Parmar Hardik B.	
			160280106122	Yadav Manish Shrinivas	



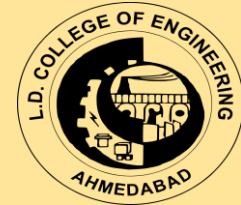
					include, in most cases, purification, disinfection through Chlorination & sometimes Fluoridation. Treated Water then either flows by gravity or is pumped to ESR. Virtually all large systems must treat the water; a fact that is tightly regulated by global, state & federal agencies, such as WHO or EPA. Water treatment Must occur before the product reaches the consumer & after words. Water purifications usually occur closed to the final delivery point to reduce pumping cost& the chances of water becoming contaminate after treatment.
5	VISHWAKA RMA YOJANA- CHITAL	Prof. U P Nigam	160280106115	Kevin Harsukhbhai Sutariya	The Government of Gujarat has launched Vishwakarma Yojna (scheme) for development of villages by identifying the requirements of villages. Under this scheme, the villages are surveyed and this project was identified and selected for implementation. Rurbanisation is to bring peace of mind to the villagers by providing them the basic amenities required and still keeping the village soul intact. Chital Village has been identifies and analyzed for design proposals. This project gives one new idea for Development of rural villages. Also gives procedure how they fulfill requirement of the villages. Now a day people are moving from rural to urban area due to lack of basic amenities. With the help of this Yojna we can bring awareness about the thing which are not available at rural areas.
			160280106121	Vyas Hardik Navinchandra	
6	Cinder waste material for construction of pavement layers	Prof. A M Mirza	160280106006	Bhagora Deep R	The utilization of waste materials like coal ash, copper slag, steel slag, Cinder, zinc slag etc. in road construction industries is gradually gaining significant importance in India considering the disposal, environmental problems and gradual depletion of natural resources like soil and aggregates. In this project we select two industrial waste materials cinder and steel slag. The main conclusion of the project is use of industrial waste like cinder and steel slag in road construction, so that we can utilize these waste material and we can also solve their disposal problem and we can save the use of natural soil in road construction
			160280106014	Chauhan Pragneshkum ar Arjunsinh	
			160280106052	Mali Vipul	
			160280106019	Darji Mayurkumar Dalabhai	



7	Corrective and Suggestive Improvement Measures for Urban Road Infrastructure - Case Study of Satellite Area in Ahmedabad City	Prof. V J Chitaria	160280106068	Parmar Nikulkumar Manubhai	The urban transportation infrastructure is one of the most important component for the cities, and involves many aspects that concern to citizens, government and the socio-economical growth of the people. The development of urban road infrastructure systems is an integral part of smart city. As the urbanization is happening, more people are using urban roads, so congestion and traffic on roads are increased. The objective is to address the environmental and social issues associated with the increased usage of the road network in the urban area. In this project, the important key topics such as sustainability, costs and risks, mobility and environmental impacts are considered, evaluated and estimated after applying improvement measures.
			160280106093	Prajapati Mihir Ajitbhai	
			160280106103	Sankaliya Rajbhai Dhanjeebhai	
			160280106124	Zala Dipesh Bhupendrabhai	
8	Desalination Plant	Prof. U P Nigam	160280106051	Makwana Chirag	Various methods for desalination has been thoroughly studied in detail to form the methodology in first stage. The next stage is to determine the methods already in use for desalination of water. We found some methods which were in use but are very costly. Generally, most of the desalination plant is based on RO system. In RO system, half of the cost of running plant is of the energy to be supplied for water to pass through the membrane. So, we tried to design new membrane which is based on natural resource like activated charcoal from coconut shell, silt, sand and gravel. This membrane will work as a gravitational filter so the energy requirement will be less compared to the conventional membranes. The size, material and thickness of membrane are mentioned in detail. This membrane reduces following impurities:• 60% reduction in chloride • 75% reduction in sodium • 100% reduction in iron • 53% reduction in sulphate • 20% reduction in total dissolved • 12% reduction in hardness. We made membrane in this semester. Result of sea water are mentioned in detail and also reading of water after passing through membranes has been described.
			160280106079	Patel Rahil R	
			160280106086	Patel Zeel Shailesh kumar	
			160280106113	Solanki Smit	
			160280106070	Patel Chintankumar Dineshkumar	



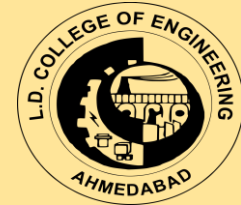
9	Design and planning of self sustainable building	Prof. N J Dalal	160280106026	Gajera Rutuben Rajeshbhai	<p>The dilemma of pollution is as old as civilization itself. It has become a major concern in the last few decades. Therefore, we decided to prevent this situation by developing the concept of constructing a self sustainable-green building. Making green buildings also helps reduce the ill effects faced by humans, and the environment itself. There are two main organizations LEED and GRIHA, which gives a rating to the green buildings based on their criteria's fulfillment. The industrialization and infrastructural development of our country leads to an increase in the concrete structure and consequently a decrease in Greenfield. Climate change has been internationally recognized as a severe environmental problem. Hence, we must take sufficient care to reduce and revert its effects. Water conservation in buildings has received increasing attention in recent years due to ever-growing water consumption. So contributing to the prevention of this water reuse creates a closed-loop cycle within the green buildings. Also, another one of the main problems are heat transmission into the building from outside. The best measure to avoid this situation is implementing the cavity wall into green buildings. Solar energy is a one among the foremost substantial energy resource on Earth. It is often captured and are used as a renewable energy source, is a crucial a part of our clean energy future. Solar power comes from the sun and may be captured with various technologies, primarily solar panels. The "photovoltaic effect" is the mechanisms by which silicon solar panels harness the sun's energy and generate electricity. Alongside these solar panels, the skinny glass panel called Building-Integrated Photovoltaics (BIPV) also consumes solar power and transfer it into electricity. A biogas plant is a modern energy source, and it is favorable to the necessities of the future. The generation of biogas used as fuel and contributing to reduce the emission of gases that contribute to global warming. To overcome in water scarcity problem and meet our daily demand of water requirement, we need to think for alternative cost-effective and easier technological methods.</p>
			160280106025	Doshi Smit Satishbhai	
			160280106050	Lokhandwala Abbas Saifuddinbhai	
			160280106064	Umang Pandya	



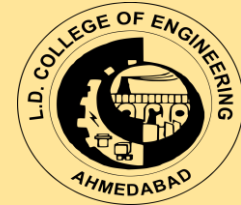
10	Design of Smart Parking in the Smart city	Dr. M S Gadhvi	160280106088	Prajapati Alpesh Prabhubhai	In this project design of Smart Parking Network in the Smart City has been done. Key features and project development is shown in detail. Project processed for providing an application to find geo-tagged parking spot in the city center. To provide interface to reserve available parking space using mobile application. GPS navigation provision to the parking spot, hassle free parking and retrieval of the car. Parking regulation can be done using mobile application based interface with smart billing system by replacing the paper-based ticketing. Car security and protection in the parking lot with automated barrier system. Provision to involve citizen to rent out private space on hourly basis for paid parking in busy city areas. Various modules designed are (1.) Android App to locate and reserve the parking, (2.) Design of boom- barrier or spike guard in the parking area for car security Ready business model.
11	Design of Storm Drainage Network and Rainfall Pattern Analysis For Aslali Area of Ahmedabad City	Prof. P K Shah	170283106003	Chaudhari Yogeshvari V.	Rainfall-runoff relationship is one of the important parameter for designing storm water drainage. This research is mainly focused on by understanding existing drainage system and problems of Aslali, Dist. Ahmedabad, Gujarat, taking an effective step for redesigning storm water drainage system by analyzing the topographic condition and discharge of rain water over the study area and reduce the effect of high inflow leads flooding. Depending on the rainfall pattern prospective discharge will also be formulated. Foremost, the rainfall data of 35 years (1981-2015) is collected from Gujarat state water data center. Using rational method, discharge (Q) is determined with 35 years of rainfall data. Therefore, flood frequency analysis was done in which the values of peak daily rainfall were arranged in decreasing order and it is converted finally into hourly maximum values using the standard IMD empirical reduction equation. Discharge is determined. The existing system of drainage is visited twice and it is found by observation that the system is insufficient to carry the storm water generated during heavy rainfall. In future the work will be carried out to generate the Digital Elevation Model (DEM) and problems relevant to the storm
			170283106013	Krupali Vijaykumar	
			170283106015	Parmar Nishita Rameshbhai	
			170283106016	Patel Neha Pravinbhai	
			170283106022	Sathwara	



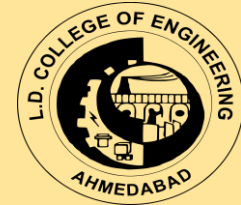
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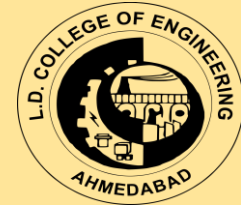
				Dharaben V.	design will be addressed. The design of the storm drainage will be proposed using Storm CAD software.
12	Feeder circuit planning for Ahmedabad Metro	Prof. V J Chitaria	160280106059	Akhil Nair	Ahmedabad Metro stations are located only at some specific locations in the city. Due to this reason, many places are isolated. To solve this problem and to make travel time from one place in the city to another minimum, it is essential to form a proper feeder line service for it. This will also increase the efficiency and effectiveness of the Metro project.
			160280106116	Jay Tewary	
			160280106046	Kori Sandipkumar Motilal	
			160280106034	Yash Jain	
			160280106047	Vedant Nikeshkumar Kotadiya	
13	HYDRAULIC BRIDGE	Prof. U P Nigam	160280106002	Ayar Gautambhai Arjanbhai	A Movable bridge or Movable bridge(common alternative spelling in American English), is a bridge that moves to allow passage(usually) for boats or barges... Generally,the bridges are powered by electric motors, whether operating winches, gearing, or hydraulic piston. The design goal for the new permanent bridge is to achieve the functional equivalence of the historic bridge with a reliable and maintainable movable structure that maximizes the vertical channel Clarence to accommodate as many snoops as possible in the crossed position and widens the horizontal channel clearance to meet navigational needs
			160280106029	Garval Mitulkumar Chhaganbhai	
			160280106061	Pampaniya Kapil	
			160280106117	Ulva Chirag Lakhabhai	
			160280106092	Prajapati Krunal Dilipbhai	
14	Hydroelectric Power Plant	Dr. R B Khasiya	160280106011	Chaudhari Meghna	Our project is about producing electricity by flowing water without any construction of dam or height difference. The production of electricity from a cascading hydroelectric power plant is described as follows. Pylons have been thrust into the river bed, on which are placed stripe foundations. Two interconnected reinforced concrete cascading turbines, placed on stripe foundations.The resulting water slowdown "H" creates pressure on the cascading hydroelectric power plant. The regulators gradually pass water towards the turbine pipes, in the volume of water flow that comes. The water in the pipes of the turbine accelerates when the turbine paddles are used to obtain mechanical energy. With a position of the trapped air and dividers, unplanned water penetration is prevented. This way the flowing water is directed to go through the turbine pipe, where its used by arranged turbine paddles. The turbine paddles, on the
			160280106033	Jadeja Poojaba Sampatsinh	
			160280106110	Preet Shah	
			160280106085	Patel Umangkumar Harehbhai	



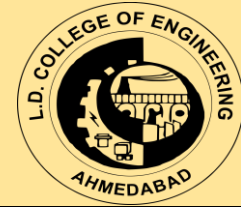
					way back, move through the air almost without any negative resistance. This results in an efficient use of tidal forces and high sea waves.
15	Innovation in Design of Energy Dissipation Device	Prof. M.M. Shaikh	170283106008	Gopani Nikulkumar Rameshbhai	There are a lot Energy Dissipates During Water flow over spillway; This project aims at reducing these Scouring and Converting Kinetic Energy in Mechanical Energy or Electrical Energy by Innovating in design of Energy Dissipation Devices. The water flowing over the spillway acquires a lot of kinetic energy by the time it reaches near the toe of spillway (Because of conversion of potential energy into kinetic energy). If arrangements are not made to dissipate this huge kinetic energy of water and if the velocity of water is not reduced, large scale scour can take place on the downstream side near the toe of the dam and away from it. These arrangements are known as energy dissipation arrangements or Energy dissipaters. We observed that, These devices only helpful for reducing scouring but doesn't convert kinetic energy in other form of energy like Mechanical energy or Electrical energy.
			170283106009	Goswami Dhruvgori Rameshgori	
			170283106019	Prajapati Avinash A.	
			170283106021	Rathod Jatin	
			170283106025	Sonagara Meetkumar Hiteshbhai	
16	Planning and management of rural water supply scheme	Prof. S H Kazi	160280106089	Ashok Prajapati	Project is for giving the solution for contaminated water supply to the gamdi village. We suggest the water treatment plant for domestic use of water. Water is contained high TDS and metallic contains in it. To improve the quality of water for domestic and drinking purpose we suggest the treatment plant of 2.7 lakh litre per day capacity with optimum cost.
			160280106071	Dhairya Amrutbhai Patel	
			160280106074	Kaushik J Patel	
			160280106119	Mayur Vaghela	
			160280106076	Patel Nikul Kumar K.	
17	Road With Vertical Axis Wind Turbine	Prof. J S Kamble	160280106048	Limhani Pragneshkumar or Prakashbhai	Wind energy is one of the non-conventional forms of energy and it is available in affluence. Electricity can be generated with the help of vertical axis wind turbine. This projects aims of utilizing this wind energy in most effective manner to get the maximum electric output, and therefore we selected highway as our installation site where we can take the advantage of the moving vehicles on both the sides of the road. In the present work, turbine is design and fabricated as per the specifications, the blades used are semi-
			160280106053	Maulikkumar Dineshbhai Mangroliya	
			160280106001	Akbari Mehul Mukeshbhai	
			160280106112	Solanki Rakeshkumar	



				Vishabhai	circular shape and are connected to the disc which is connected to shaft. Shaft is then coupled with pulley with the help of bearing, and then pulley is connected to the alternator, which generates the power. The power developed is stored in battery and then can be used for street light, signal or toll. This project also aims for maximum output with minimum cost.
			160280106042	Vatsal Kanani	
18	Water purification by roughing filter	Prof. J P Modi	160280106077	Patel Prinkesh Nareshkumar	Horizontal flow Roughing Filtration is used as pre-treatment process prior to slow sand Filtration for the reduction of the raw water turbidity. The treatment combination is based on natural purification processes and therefore does not depend on any chemical supply. However, the filter units are relatively large but usually constructed with local resources. The technology is primarily meant for rural and small urban water supplies. Slow Sand Filtration is commonly considered an appropriate water treatment process most suitable for developing countries due to the ability to significantly improve the bacteriological quality of the water without the use of any chemicals speaks in favour of this process. However, the slow sand filters are frequently overloaded with suspended solids thereby causing unacceptable Horizontal-flow Roughing Filtration is used as pre-treatment process prior to Slow Sand Filtration for short filter runs. Hence, pre-treatment of the raw water is almost a necessity. Horizontal-flow Roughing Filtration might close this gap. The filter is composed of a simple box filled with gravel, sand, briquettes and activated carbon. Activated carbon performed better than any other material due to high specific surface area and porosity which enhance the sedimentation and other filtration process like adsorption. Achieved results in this study showed that roughing filters might be considered as an efficient pre-treatment process of raw water.
			160280106065	Parasiya Darshan	
			160280106040	Joshi Urvisha Pankajbhai	
			160280106114	Surani Akash R	



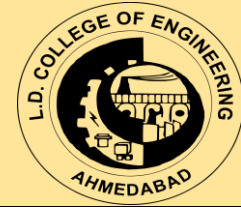
19	VISHWAKA RMA YOJANA- ASLALI	Prof. U P Nigam	170283106014	Parmar Mitva Sanjaykumar	<p>The Government of Gujarat has launched Vishwakarma Yojna (scheme) for development of villages by identifying the requirements of villages. Under this scheme, the villages are surveyed and this project was identified and selected for implementation. Aslali Village has been identified and analyzed for design proposals. Rurbanisation is to bring peace of mind to the villagers by providing them the basic amenities required and still keeping the village soul intact. This project gives one new idea for Development of rural villages. Also gives procedure how they fulfill requirement of the villages. Now a day people are moving from rural to urban area due to lack of basic amenities. With the help of this Yojna we can bring awareness about the thing which are not available at rural areas. So this help to provide better solution for the available problems in rural area like drinking water, Drainage facility, road network, etc.</p>
			160280106090	Prajapati Gauravbhai Dasharthbhai	
20	Application of SCADA in Water distribution problem in society or residential area	Prof. R M Jadav	160280106007	Atri Bhatt	<p>Water distribution should be equal to all houses as per requirement. Now a days uneven distribution being provided by Municipalities. So many times, some houses get more water and some houses gets less water. If we make this water distribution automatic (Machine based) we can resolve this problem. Water distribution (WD) is an intermediate stage in the water production and supply chain. It comprises the distribution pipeline networks, service reservoirs, booster stations, valves, flow meters, chambers and indicator/marker posts. Safe for looping, it can be likened to the branches of a tree, transporting materials from the root (intake and waterworks/headworks) through the trunk (rising and trunk pipeline mains) to the leaves (consumers). Water supply represents a vital problem for people, and this imposes the need to know the information regarding consumptions, resources and production. This implies a continuous supervision of the water supply process in order to allow any problem that could appear to be solved, and in the same time, to maintain normal functioning parameters. Proper solutions imply automation and monitoring architectures which contain: a supervision and control</p>
			160280106015	Chavda Dhruvil Anilkumar	
			160280106022	Dave Dharmik H.	
			160280106005	Savan H Baria	



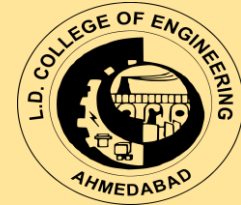
					<p>system for the real time installation, programmable logic controllers with basic functions (communication, adjusting, measuring, etc.) libraries, communication systems, standard interfaces or dedicated ones with sensors, electrical drive elements, measuring devices, etc. The informatics systems present the possibility of preventing some phenomenon, by analysing and processing the data, leading to an optimum functioning and to important financial economies. In this way, the paper presents a SCADA system for the monitoring and control of the technological parameters in the water distribution stations, which will allow the optimum functioning of the pumping system, safety and endurance growth in the equipment and installations exploring, and so obtaining efficient energy usage and optimum administration of the drinkable water.</p>
21	Smart Vacuum Garbage Collection System For Residential Building	Prof. C N Bhavsar	160283106005	Chotaliya Bhaumik Maheshbhai	<p>This system represents a new way of dealing with the waste in densely populated urban areas. The development of underground infrastructures for the efficient management and collection of urban waste offers great advantages and solutions in tackling problems relating to the conventional method. • The underground vacuum (pneumatic) pipe system can collect the waste from shops, restaurants, boutiques, offices and householders. Vacuum collection system reduces manpower and traditional storage bins. Waste is transported from buildings through an underground pipe network, to a central collection station where it is collected and recycled. Various usefulness are listed as</p> <ul style="list-style-type: none"> • SVGCS system will minimized the operational cost of municipal solid waste management, therefore it provides long term savings. • This system has ability to collect efficiently all types of waste. • It is flexible with the ability to easily adopt all types of changes. • It minimizes the use of garbage collection trucks in urban areas. • It minimizes air pollution, noise pollution, aesthetic pollution and odour nuisance from MSW (municipal solid waste). • Space traditionally reserved for communal waste room can be reallocated for commercial development of parks and public spaces. • It is safe and hygiene for
			170283106010	Jadav Vimalbhai Khodabhai	
			170283106017	Patel Savanbhai Maheshbhai	
			170283106023	Shah Jenir Naimish	
			170283106028	Tank Meet R.	



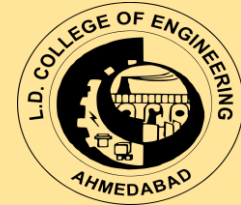
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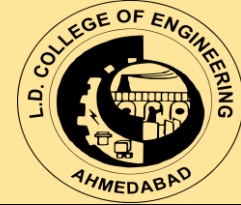
					MSW collection workers. • The system helps in reducing health risks and also improves the living standards for the residents.
22	Stormwater Management	Prof. S S Dixit	160280106133	Judy Lalrinchhani	In the present project storm water management of the institute has been studied and preventive measures have been provided. The most effective way to design a proper drainage system by thoroughly studying and surveying the existing drainage line and topographical conditions of the college as well as the meteorological data of the area. After studying the basic hydrology of storm drain management, research guidelines and meteorology of study area, a detailed methodology has been prepared and steps have been identified to proceed project work. Taking an effective step for designing storm water drainage system by analyzing the topographic condition and discharge of rain water over the study area and reduce the effect of high inflow leads flooding. Depending on the rainfall pattern prospective discharge can also be formulated. The design discharge is then used in designing of storm water drainage.
			160280106135	Theophil Thangchhuan a	
			160280106125	Aviwie Nyuthe	
			160280106131	Vetolu Swuro	
23	TRAFFIC SIGNAL COORDINATION	Prof. T H Vyas	160280106016	Chudasama Karan	As traffic on urban street networks continues to increase day by day, problems like congestion, delay, accident, environmental pollution, fuel consumption, etc. Signalized intersections are a critical element in such networks so care must be taken in the definition of the signal phasing. Not only does the cycle length and splits impact capacity, but so does signal coordination. In order to reduce delay time through frequent stops and queue waiting time and length, the signal timings at several intersections should be offset from each other, so that platoons of vehicles are progressed through the network with as minimum stoppages as possible. For the coordination of signalized intersections, different software can be used which uses real time data with the help of sensors
			160280106020	Darji Sachin Dipakkumar	



			160280106023	Desai Apurv Kumar Amrutbhai	<p>but they are costly and may not give suitable result. Therefore, to coordinate traffic signals in the city like Ahmedabad having heterogeneous traffic conditions, a methodology has been developed to reduce stopped delays at signals and to reduce travel time for through movement of the both direction of road by calculating offset times and optimizing the cycle lengths of traffic signals. A simulating software VISSIM will be used for simulation of collected data for satisfactory results. In the case of Vijay cross roads to Panjrapol cross roads the proposed methodology will reduces 80% delay for through traffic compared to existing traffic condition. Hence It has concluded that the coordinated traffic signal is anytime better than the non-coordinated traffic signals. Traffic signals are pre-timed signals and it is required to optimize the cycle time of traffic signals. Green time provided for phases are based on the traffic volume and saturation flow. For traffic signal coordination, cycle time of the signals must be equal or in the multiple of selected cycle time. Equal phase timing and proper selection of phase sequence can reduce delay considerably in signal. The proportion of PCUs of two-wheeler, three-wheeler and car is higher than the proportion of other categories of vehicles.</p>
			160280106056	Modhvadiya Jayshreeben Hajabhai	
24	VEHICLE ACTUATED SIGNAL	Dr. M S Gadhvi	170283106001	Bhil Sonaben Devsingbhai	<p>Vehicle-actuated (VA) traffic signal controllers are most effective at isolated intersections where the fluctuation in demand is significant. A well-designed actuated control plan that responds appropriately to traffic demand can significantly reduce delay and fuel consumption. This study represents an attempt to adapt the homogeneous VA system implementation for heterogeneous traffic condition. The study suggests that overall the VA controllers with the improved implementation strategy performed much better than the existing pre-timed signals. However, the sensitivity of the thresholds for cycle time, green time, gap, and so forth need To be studied; typically, with the help of robust simulators. Further, the performance can be significantly improved, especially along the corridor,</p>
			160280106010	Chaudhari Mayurkumar Rajeshbhai	
			160280106058	Mori Vishwas Dhirubhai	



			160280106078	Patel Raginikumari Kantilal	using a good progression (coordination) model. The study is an important step in devising strategies for the implementation of area Traffic control for heterogeneous traffic conditions.
25	Artificial ground water recharge	Prof. U P Nigam	160280106049	Limbola Ravirajbhai Mahipatbhai	Artificial ground water recharge is as a process of induced replenishment of the groundwater reservoir by human activities. It is the planned human activity of augmenting the amount of ground water available through works designed to increase the natural replenish mentor percolation of surface water into the ground water aquifers, resulting in a corresponding increase in the amount of ground water available for abstraction. The primary objective of this technology is to preserve or enhance groundwater resources in various parts of India which includes conservation or disposal of flood waters, control of salt water intrusion, storage of water to reduce pumping and piping costs, temporary regulation of groundwater abstractions, and water quality improvement by dilution by mixing with naturally-occurring ground water (Asano,1985). In such are as, there is need for artificial recharge of ground water by methods such as water spreading, recharge through pits, shafts, wells and many more. Our motto for this project is to improve ground water by artificial technique and make ground water level stable or out of danger.
			160280106045	Rajnikant Kidecha	
			160280106043	Khachar Bharat Bahadurbhai	
26	VISHWAKA RMA YOJANA- GAMDI	Prof. U P Nigam	160280106096	Prajapati Vipul	The Government of Gujarat has launched Vishwakarma Yojna (scheme) for development of villages by identifying the requirements of villages. Under this scheme, the villages are surveyed and this project was identified and selected for implementation. Rurbanisation is to bring peace of mind to the villagers by providing them the basic amenities required and still keeping the village soul intact. This project gives one new idea for Development of rural villages. Also gives procedure how they fulfill requirement of the villages. Now a day people are moving from rural to urban area due to lack of basic amenities. With the help of this Yojna we can bring awareness about the thing which are not available at rural areas. So this help to provide better solution for the available problems in rural area like drinking water, Drainage facility, road network,
			170283106024	Solanki Neetaben Tribhovandas	



					etc. Gamdi Village has been identifies and analyzied for design proposals.
27	VISHWAKA RMA YOJANA- TIMBA	Prof. U P Nigam	160280106098	Rangani Krutagna Parsottambhai	The Government of Gujarat has launched Vishwakarma Yojna (scheme) for development of villages by identifying the requirements of villages. Under this scheme, the villages are surveyed and this project was identified and selected for implementation. Timba Village has been identifies and analyzied for design proposals. Rurbanisation is to bring peace of mind to the villagers by providing them the basic amenities required and still keeping the village soul intact. This project gives one new idea for Development of rural villages. Also gives procedure how they fulfill requirement of the villages. Now a day people are moving from rural to urban area due to lack of basic amenities. With the help of this Yojna we can bring awareness about the thing which are not available at rural areas. So this help to provide better solution for the available problems in rural area like drinking water, Drainage facility, road network, etc.
			160280106099	Rathava Tusharbhai Somabhai	