

Government Polytechnic Bhuj

Faculty Suggested Challenges

SR No	Project Suggested By	Project Title	Project Details
1	P Y Trivedi	Work Place	Online display of employee location at workplace
2		Work Place	Online display of machine location with its status at workplace
3	S N Heruvala	Finance	Individual Tax Calculation with import Export option
4		Electricity	Energy meter reading from android app
5	S S Shah	Maintainance	Smart solution for door to door waste collection procedure under MGSM
6		Maintainance	Utilization and secondary uses of collected waste from institution
7	R.K. Patel	Pollution	Reducing air pollution in industry by using preventive measures
8		Safety	Safety of workers in industry by using PPEs and implementation of Safety plan
9	J.N.Chavda	Food waste management	Collect food waste from different places like our home, hotel,etc. will be use as fertilizer for increasing fertility of land
10		material sand	Demolition waste , stone waste and other constructional waste are utilise in construction as material sand is replace natural sand
11	R J Mistry	Energy	house electrification and power generation from renewable sources gudelines for public
12		Energy	Smart techniques adoption for energy saving and geneartion
13	S G Srivastav	Water conservation	Restrict runoff of rain water to improve ground water table by connecting flud channels at suitable place.
14		Utilization of indusrial waste	By reducing,reusing and recycling technics and proper treatment of waste before dispose off.
15	Shrijal C Dabhekar	Pollution	Sound pollution is a major cause in mines or hearing loss and accidents in mines. So that to reduce this above ratio, proper precaution and prevention can be taken by using various technichs like sound survey and plantation etc.
16		Non Reneweble energy source	Cost of fuel consuption is high and also the effluents which librate after its consuption are very harmful. To solve this above problem different parameter and technics can be used.
17	Sejal K Gohil	Beautification	An application which will scan face and give make up advice.
18		Education	An application which can show availability of a particular at nearby book store.
19	Kalyani M Jha	Education	Chip installed markcheet may be helpfull in differentiating fake and original marksheet
20		Education	Chip installed hall ticket may reduce UFM cases during examination
21	Keyuree V Patel	Daily life	An application for cloth exchange where we can not only buy cloths but also sell old cloths
22		Glocery	An application which can give comparitive vegetable rates nearby venders.

23	C .V. Thakor	Blasting	Design a drill pattern to reduce blast vibration in surface mines.
24		Education	Develop an android application of Mining Dictionary.
25	E U Ghanchi	Steel Making	Develop formula for calculating alloying elements added during making of alloy steel.
26		Steel Making	To Reduce toxic gases from steel scrap in steel industry.
27	R J Patel	Corrosion of metals	To reduce of corrosion in Galvanized Solar Water Tank
28		Foundry	Simulation of sand casting for defect minimization
29	Samarsinh Chauhan	physical metallurgy	Physical simulation of thermo mechanical process
30		Iron and Steel making	Use of natural gas as an alternative to metallurgical coke.
31	Shailesh Bachubhai Rathava	Foundry	Reclamation of sand after casting in foundry.
32		Steel Making	Recycling and use of slag produced from steel making.
33	M B Hadia	Non Ferrous	Utilization of red mud for development of building materials.
34		Non Ferrous	Development of a suitable process for conversion of waste aluminium dross into value added products.
35	D D Pandya	Safety	During Bike riding, many time bikers forget to raise the side stand, which may cause accident.
36		Energy Conservation	water coming down from the overhead tanks (multistored building, municipal water tank etc) having potential energy, can be utilised to produce power
37	D B Lokwani	Comfort	In public transport, it is very difficult for senior citizens, heavy weight persons and divyang persons to climb in the vehicles as height of first stair from the ground is very high
38		Energy Conservation	Gases from the kitchen chimney having heat energy can be utilised for further use
39		Energy Conservation	heavy Rain water running down from tarrace can be utilised to produce power
40	H S Sorathia	Transport	On road weighing bridge to measure weight of moving vehicle
41		IDP based	To reduce to metal lose of sand crusher grinder blade
42	D L Suthar	Environment	Pollution through Industries & Emission by vehicles-The major problem for human being
43		Safety	Introduce more Active and passive safety devices for two wheelers vehicles- remove casualties
44	H D Tank	Transportation	Efficiency of vehicle is very low it can be increased
45		Safety	various safety features in automobile to prevent accident
46	S B Bavaliya	Automobile	Mostly transportation vehicles carrying overload and create accidents if we provide sensors which prevents the start of engine
47		Automobile	We can measure the quantity of gasoline during filling of tank
48	D M Chauhan	Interdisciplinary or service software design	People often find their vehicles missing from where they park, apart from damage to the vehicle, action of the system to alert the owner of the vehicle towed by the police compound the matter

49		Interdesciptionery or service software design	Open defecation is major issue in India, It may be due to public mentality and non availability of pay and used toilet. Device a toilet which may help to solve such issue. Also it should be very low compare to current alternative.
50		Interdesciptionery or service software design	Hybrid car which can be run by pedal power as well as solar energy. Space, save eco friendly and joy to ride in and around city to promote save environment green energy, healthy life.
51	K A Chaudhri	privacy	Develop such device which detect cc tv camera in private public place
52		Mechanical	open hearth furnace is not available in workshop
53	D P Judal	Agricultural	Develop the device which reduce the farmer more time waste in spraying fertulizers on plant or soil
54		public	Develop such device which cruse plastic bottles and converts fine material
55	D P Rami	Agricultural	To produce such irrigation system which help farmers to reduce time, effort and also save water
56		Agricultural	To reduce effort of farmer during fertilizer spraying
57	P B Surani	Automobile	In motorcycle in which digital fuel indicator does show accurate measurement
58		Automobile	To make a device which control the speed of buses and trucks to prevent fattal accidents
59	N K Prajapati	Automobile	Fuel storage indicator system for two wheelers
60		Interdescipline	Obstracles sense automobile system to minimise accidents
61		Interdescipline	Sensor base lathe machines
62	M M Rana	Design	Seasore pollution is one of the major issue nowadays, which may effect many lives of eco system Device a mechanism which may help to collect and clean sore very fast and effectively
63		Design	Device a latest baby cradle to help digital parenthood
64	K H Siju	Textile, Mechanical	Yaan wraping machine
65		Automobile	Foldable bicycle
66		Mechanical	Power generation through speed of vehicle on highways
67	V S Solanki	Pollution	Pollution control device in two wheeler
68		Safety	over speed indicator in four wheeler
69	H J Wadhwana	Automobile	Smart parking system in heavily populated area
70	V D Patel	Design	Design a mechanism for different types of furniture which is space saver
71		Automobile	Design a electro mechanical which can sense life of tires and indicates it
72	V M Gadhvi	Mechanical, metallurgy	Segregation of metal particals from grinding dust of ingot
73		Energy Conservation	Design a floating mechanism in sea to harness energy from sea waves
74	JITEN M KHODIYAR	Solar Power Plant	Automatic Robotic Arm/Machanism Devlopment for Optimum power Generation
75		Toll Gate	Automatic Traffic Diversion/Lan Indication system and Open Bypass Lan in Rush Time

76	MAYUR S THACKER	Measurement System	Dedicated Domestic Water level indicator for Monitoring & Optimized Usage of Water
77		Energy Conservation	Digital Power Consumption Monitoring System with IOT Based Enhanced Energy Conservation Notification
78	SHRUTI P JARADI	MicroController	MicroController Based Traffic Control Signal with Indicator
79		MicroController	Low Cost LPG Leakage Detector with Buzzer Indicator Using MicroController
80	MANMEET U VADHER	Solar Power	Improvement of Efficiency in Generation
81		Automobile	Hybrid Fuel Bike Electrofuel Concept
82	VASIM A MISTRY	Electrical Power Generation	Electricity From Rain
83		Power Electronics	Low Harmonics Inverter
84	KRUPAL B PARMAR	SOLAR SYSTEM (ROOFTOP)	Improve the Power Generation by Cleaning Solar Module.
85		STREET LIGHT SYSTEM	To Design Street-Light Control System Which Automatically Start in the Evening (in College)
86	Ajit Yadav	Power System	Low Maintenance System for Remote/Rural Distribution Network
87		Hazard Management	Garbage & Drainage Smart Maintenance System
88	Harshad N. Lad	Railway	Frequent Accident Occurs at Railway Crossing & Track Switching Required to Avoid Accident
89		Electrification of Remote Areas	Due to Geographical condition of Remote Place Electrification is not done yet, currently : High T & D Losses, Cost of Installation Maintenance
90	R A VYAS	REDUCTION OF CARBON FOOTPRINT	PROMOTING GREEN ENGINEERING TO IMPROVE MANUFACTURING
91		URBAN DEVELOPMENT	INTELLIGENT PARKING SYSTEMS
92	A Y PANDYA	POWER GENERATION	POWER GENERATION FROM GARBAGE AND SEWAGE
93		ACCESS TO DRINKING WATER	ABSENCE OF LOCAL EXPERTISE IN THE CONSTRUCTION AND MAINTANANCE OF WATER SYSTEM
94	N C TRIVEDI	CLIMATE CHANGE	ADDRESSING CLIMATE CHANGE THROUGH ENGINEERING INNOVATIONS
95		CIVIC AMENITIES	LOW COST SYSTEMS TO DETERMINE PURITY OF AVAILABLE WATER.
96	Nirav J Patel	Power Theft	Power Theft leads to Revenue loss to Supply Companies, It also affects the supply company
97		Advance Condition Monitoring	Trouble Free Continuous Operation of Power Transformer, Very High Cost of Power Transformer. So, Required to Prevent it against more faults
98	MITESH K RAVAL	Project I	Protecting IM from Phase & Temperature Using Gate Circuit
99		Solar Bag	This is an solar Backup to Charge all your Devices with a Removable Power Bank
100	SAGAR L Oza	Smart grid technology with smart tower	In this project it will make transmission and distribution of power more efficient and will identify any fault soon by improving reliability. - This will also facilitate in finding theft connections will improve the efficiency.

101		Switchgear	GSM based Substation Monitoring and Control System - This project aims to acquire various substation parameters like current, voltage, temperature, power factor, etc., remotely via GSM communication. Thus, the remote operator can analyze these parameter values and take corresponding control action. A user can remotely operate the substation equipments like circuit breakers, isolators, relays, buzzer alarms, and so on.
102	Narvatsinh S Patel	Energy Conservation	Automatic Control of Light and Fan (Class Rooms/Labs/Staff Rooms)
103		Liquid Level Controller	Automatic Control of Water Level for Institute / All Department Water Tanks
104	Yogendra P Gusai	Non-conventional Energy	Improve technology in non conventional resources of energy to reduce pollution in auto mobile sector
105	Keyur H Patel	Power Sector	Power supply on demand, Payment of Electricity bill any time etc.
106		Residential Building	Automatically Switch ON/OFF Lights Fans in Rooms
107	G V Lakhani	student db for conession pass management	dbms for collection of student travelling conession pass (ST/ Railway) at both end (College / Bus Stand), Date sent to ST / Railway Authority by authorized email ID, ST/ Railway Auhtority can issue student pass on it, App can also be developed. student have to show mobile screen for verifying PASS Validity
108	BHUMI NILESHBHAI NAKHUVA	Water Resource Management	There should be some system that takes care of water distribution to all the buildings and departments inside the campus evenly. So that the crises regarding shortage of water never happen. And also the unwanted wastage of water should be minimized.
109	KAMAL SHANKARLAL MANEK	Android based Electronic notice board	Electronic displays are used these days to display relevant information in a public place. It could be scrolling message or fixed displays in areas like railway stations, banks, public offices, etc. Notice Boards used in the institution require sticking of the various notices day-to-day. This project can deal about an advanced hi-tech wireless notice board which can be controlled by Android device through Wi-Fi or Bluetooth.
110	A. V. KATUVA	GTU EXAM MANAGEMENT	This system automates the exam process.
111	VISHAL H GOHEL	ARTIFICIAL INTELLIGENCE	The dawn of a new era: Opportunities and challenges of artificial intelligence Every single day, the connected world creates 44 exabytes of new data—an amount equal to three million Libraries of Congress—that can be collected, stored, and analyzed. At the same time, artificial intelligence is being applied in new ways that are expected to transform virtually every sector. AI is transforming everything from finance, retail, and healthcare to national security and criminal justice.

112	Divyarajsinh Indrasinh Jadeja	Online Voting System	<p>online voting system is applicable to elect the member like MP, MLA etc through this system it is possible to achieve "ONE NATION ONE ELECTION". through Adhara data voter can vote at any place to their legislative assembly so no need to go at their Booth for voting.</p> <p>Advantages:-</p> <ol style="list-style-type: none"> 1) May achieve 100% voting 2) 0% Booth Capturing possibility 3) While voter in roaming in india, he will able to vote at any place through this system 4) Quick result 5) Less Man Power required
113	Aarti Jansari	Library & Books Management	Books in the library can be managed and searched well with this kind of software. Individuals have account with this and taken books can be seen with the ID of particular.
114	Mayur Taunk	AIR QUALITY MANAGEMENT	An Application is suggested where the a person can log the details about the area which includes (Number of peoples, vehicles, trees and area), the application should log the current air quality by some devices installed around the place, and by considering the parameters such as number of peoples, pollution creating things, fresh air sources (Trees) and the area which is covered by the application, the application should suggest the required fresh air and the solutions to do the same. This application can lead to a better environment where the residents can live a healthy life.
115		Task Logger	An network base task assignment System is suggested, where colleagues can assign the task from the application with a deadline to other colleagues, this will bring a good management of work to be done in a co-operative manner
116	N J Goswami	GTU Exam Management System	A complete system which take care of exam duties allocation to final remuneration calculation. This system will be able to generate all kind of necessary report which are require for GTU Exam
117	Devraj Sakariya	Agriculture	Individual Insurance Scheme for corp
118	N.V.THAKER	Construction Materials Technology	Formation of an Agency, which can co-ordinate between Construction Material Suppliers, Material Testing Laboratories, Material Purchasers and prepare App or Website to supply materials of required quality to purchasers at competitive price.
119		Transportation Engineering	Establish firm for conducting different Traffic related surveys with modern Softwares.
120		Material Technology	Establishment of Material Testing laboratory for various Construction materials as per BIS standards.
121	B.V.THACKER	Environmental Pollution Control	To Find out the soultion to treat waste water from different industries from kutch region using recent adavancement in technology and nano particle based reagents/adsorbents

122		Air Quality Index	Study of Air quality in industrail region of Kutch , Prepare Air Quality index (AQI) ,modelling of the same and derive technologies to minimise the air pollution
123	RAVI L. LALWANI	Eco-friendly construction material	Develop an eco-friendly building materials for sustainable development and reducing carbon foot print.
124		Re-use of construction or other wastes.	Develop various techniques for re-use of construction & demolition wastes and there by minimizing environmental pollution and sites required as dumpyards.
125	BINDIYA B. SITAPARA		To improve the efficiency of various construction equipments using various optimization techniques
126			Design of Water Distribution Network for bhuj
127			Use of Remote Sensing for Irrigation Water Allocations
128	BHAVESH P. PATEL		To optimize techniques for disposal of solid waste management
129			Sustainable Groundwater Use Under Climatic Variability and Land Use Change
130	YASHRAJ D. JETHVA		To prepare the micro level ground water management plan for kutch region using various modeling tools
131			Assessing Impacts of Climate Change On Rainfall And Streamflows Using Downscaling Models
132	NARESH V PRAJAPATI	Building Material	Performance of Adhesive and Cementitious Anchorage Systems
133			Groundwater Recharge Estimation
134	HARESH A VIRDA	Fluid	Probabilistic Analysis of Offshore Wind Turbine Soil-Structure Interaction
135		Road	Warm bituminous mix road to sustainable pavement construction.
136	VINOD S KHEMCHANDANI	Roads	Impact of S-Curve on Speed in a Modern Roundabout
137			Water Balance Studies in Small Experimental Watersheds
138	R.J.Hathi	Construction Material	Replacment of cement by epoxy bonding material derived from crude oil
139		Building Construction	Low cost trasportable house building construction
140	K.V.Harpal	Concrete technology	Light weight concrete using material from crude oil waste
141		Construction technology	Low cost building useing comprsed mud and mortar
142	J. N. Thacker	Structural Analysis	Evaluation of effect of Infill walls in RC framed building and contribution in Lateral Stiffness
143		Structural Design	Design of small temporary steel structures for industires using STAAD.Pro
144	kinjal c kanodia	Structural Design	Design of folding Bridge (steel construction) with bolted connection
145		Structural Design	Design of multi story building with multi level parking using cypecad