INSPIRE

AWARDS MANAK 2019-20

State Council of Educational Research and Training,
Telangana, Hyderabad

Government of Telangana
Department of School Education

State Council of Educational Research and Training
Telangana, Hyderabad

INSPIRE

AWARDS MANAK 2019-20

inspire

COMPENDIUM OF PROJECTS

Compendium of Exhibits selected for participation in 8th National Level Exhibition and Project Competition

DEPARTMENT OF MATHEMATICS AND SCIENCE

STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING,

TELANGANA, HYDERABAD

Smt. M. Radha Reddy
Director, SCERT

State Council of Educational Research and Training,
Opp. L.B. Stadium 'E' Gate,
Basheer Bagh, Hyderabad.

FOREWORD

Innovations in Science and Technology are key to development of any country. We know that our children are our future. Therefore to attract and encourage young children towards Science and Technology and encourage them to do innovations and research in these areas, Department of Science and Technology, Government of India has started a flagship scheme, **Innovations in Science Pursuit for Inspired Research (INSPIRE)** in 2009-10. **INSPIRE Awards – MANAK (Million Minds Augmenting National Aspirations and Knowledge)** aims to motivate students studying in the classes 6th onwards to do innovations. The objective of the scheme is to target one million original ideas / innovations rooted in science and social applications every year.

Under this programme students are encouraged to identify the problems faced in day to day life and develop innovative projects to overcome the problems. The DST every year invites project proposals from the students on the problems identified by them and submit their project proposals to overcome the problems. The National Innovation Foundation scrutinizes all the proposals received and selects worthy ones and awards financial assistance of Rs.10,000/- per student. By using this amount they can develop their projects.

All such developed projects are exhibited in District Level Exhibition and Project Competitions (DLEPCs) and 10% of them are selected for State Level Exhibition and Project Competition (SLEPC). During the year 2019-20 in Telangana State 3163 projects were exhibited in DLEPCs, out of which 332 were selected to be displayed at SLEPC. Out of these, 33 best projects were selected for display in National Level Exhibition and Project Competition.

We are publishing all these 33 selected projects in the form of compendium which will be available in our website www.scert.telangana.gov.in .

This year due to pandemic situation all the DLEPCs and SLEPC are held in virtual mode. On the same lines, National level Competition is also going to be held in virtual mode.

I congratulate all the students and guide teachers whose exhibits are selected for participation at National level competition and hope that they perform to the best of the abilities and bag prizes for the state.

With best wishes ……

Director, SCERT, TS

INDEX

18	G. Anudeep	Paramitha Heritage School, Padmanagar	Karimnagar	21
19	V. Sanjeetha Reddy	Alphores High School, Kothapally	Karimnagar	22
20	V. Srihitha Reddy	Alphores High School Kothapally	Karimnagar	23
21	Sk. Saleem Pasha	ZPHS, Mulkalapally, Dornakal	Mahabubabad	24
22	Y. Shiva Krishna	ZPHS, Pulluru, Garla	Mahabubabad	25
23	K. Munna	ZPHS, Nerellapally	Mahaboobnagar	26
24	Mannem Konda	ZPHS(B), Devarakadra	Mahaboobnagar	27
25	Daniel Finny Gummaralla	Hindu Public School, Chintal	Medchal-Malkajigiri	28
26	Y. Manesh	Nava Jyothi High School, Qutubullapur	Medchal-Malkajigiri	29
27	D. Swarna Latha	MPUPS, Burugupelly	Mancherial	30
28	J. Anjanna	Govt. AHS, Malkepally Kasipet	Mancherial	31
29	M. Nikitha	ZPSS, Boregaon, Tandoor	Nirmal	32
30	B. Bhumika	ZPHS, Kansanpally, Andole	Sangareddy	33
31	Azmeera Prasad	ZPHS, Balemla	Suryapet	34
32	D. Ashok	ZPHS Gokafasalwad, Doulthabad	Vikarabad	35
33	Madasi Harshitha	UPS, Nagaiahpally, Atmakur,	Warangal Rural	36
34	G. Vijay	ZPHS, Keshavapur, Akkannapet	Siddipet	37
35	Balla Neha	Spring Dales Grammar High School, NGOs Colony,	Siddipet	38
36	Pranav Madhavaram	St. Marys Vidyaniketan High School, Gajwel	Siddipet	39
37	Kanuganti Bhagya	ZPHS, Mirdoddi	Siddipet	40
38	Payyavula Akshaya	ZPHS, Gatlamalyala, Nangunoor	Siddipet	41

Our proud winners of 7th National Level Exhibition and Project Comeptition


బాల మేధావి అబ్దుల్ కలాం
రాష్ట్రపతి అభినందనలు
ఇన్‌స్పైర్‌లో ఆకట్టుకుంటున్న
ప్రాజెక్టులు

PADDY FILLING MACHINE (SAVE ENERGY)

NATIONAL 3rd PRIZE

Name

M. Abhishek

School Address

ZPHS Hanmajipet,
Rajanna Sircilla

Name of the Teacher

K. Venkatesham

AIM : To reduce the hamalies burden and time.

PROCEDURE : Farmers are yield different types of crops. Like paddy, corn, green grams and Red grams etc. At the end of these crops farmer send crop to market after harvesting.

The Government of telangana buy the crops in different ways like Raithu Bazer, IKC(Indira Kranthi Center) / IFC(Indian Food Corporation) etc. In that market Labours (hamalies) are fill the paddy in to bags. In this process four hamalies are required to fill a bag.First one(hamaly) hold the bag to fill, second one fill the paddy and remaing two workers are carry the bag from one place to another place in market. For this total process it will take appromate 5-6mints.

With help of this **"PADDY FILLING MACHINE"** only one worker can do work that of four workers, With in 3-4 mints.Using this machine we can reduce number of Labours as well as their time. It is not only help for hamalies but also useful for farmer to fill any types crops in their Field.

For example in a IKC/IFC center to fill 100 Quintal paddy in bags, 20 workers are filled in 6 hours.If we use four machine(4 workers) replace as 20 member, then they can fill 100 quintals paddy in 3 hour only. In this way we can save of money of farmer and time of workers.

BLIND CAP

CONSOLATION PRIZE (TOP 60 EXHIBITS)

Name
K. Srija

School Address
Krishnaveni Talent School,
Peddapalli

Name of the Teacher
M. Neelima

This project makes the blind people to look after themselves. To help them I and my guide teacher had invented Blind Helper Machine. I got this idea because many of the blind people can't look after themselves. So many accidents happen to the blind people. Nowadays many are becoming blind and some has eye problems.In india only there are many people suffering blindness. So I got this idea to make Blind Helper Machine. Of the 37 million people across the globe who are the blind over 15 million are from india. While india needs 40,000 optometrists, now it has only 8,000.

AIM: Blind person's accident control the Blind Helper Machine(Blind cap)

WORKING PRINCIPLE: Reflection of light objective detectors in IR sensor.

MATERIAL REQUIRED: 9V battery clip, regulator IC, IR sensor, IC buzzer, wires.

PROCEDURE: Take the cap and fix the IR sensor to the cap and connect this to the regulator IC board. Connect the IC buzzer to the regulater, IC&IR se3nsor. Attach this beside the IR sensor IC buzzer should keep beside IR sensor.

USES: This machine will help the Blind to rescue from the accidents. They can look after themselves.

WORKING PROCESS: This will work when a object comes in front of the blind process then the IR sensor will get the reflection of light to the objective detector which is present in the IR sensor so, due to this when the object or person comes in front of the blind person then the buzzer gives a sound.

CONCLUSION: by the blind helper Machine we can rescue the blind people from accidents. The blind people can look after themselves.

GARBAGE REMOVER FOR SWACH WATER

CONSOLATION PRIZE (TOP 60 EXHIBITS)

Name
K. Naveen Kumar

School Address
ZPHS Nennel, Mancherial

Name of the Teacher
U. Srinivas

AIM : Reduction of pollution

PROCEDURE : Unlike the days gone by, now a days almost all the water bodies on earth are polluted with garbage and there by we are finding if difficult to get clean drinking water. This is more so in the areas of tourist destinations and pilgrimages with polythene bags and other non bio-degradable material that make the water stink and unsuitable even for a wash. We see such garbage in so many places that can not be in retrievable position. So to dispel all these garbage related problems and to get fresh water a working model called " Garbage Remover for Swatch Water" has been devised.

This runs on with out any fuel or electricity by using only the solar energy and removes the garbage from/on the water. By this we can not only achieve "Swach Water and Swach Bharath" but also attract more tourists to the spots like Husain Sagar, Musi etc.

WASTE TO WEALTH

CONSOLATION PRIZE (TOP 60 EXHIBITS)

Name

MD. Zaki Ahmed

School Address

Sri Chaitanya High School, Jagityal

Name of the Teacher

Sufia Jabel

AIM : Reduction of aim pollution, water pollution soil pollution.

PROCEDURE: A human is using plastic in such a way that its usage spread all over the world and so, it's effects. Dumping plastic everywhere on land and water. This is causing air pollution, water pollution and land pollution and also is bringing many health effects to people and other living creatures. We have to minimize the plastic. Plastic on earth for that we can't just simply stop using plastic. For this problem the solution is turning plastic into fuel by providing heat to it, and obtaining gas for it and passing this gas through water, which will even facially turn into fuel.

LIFE SAVING STICK FOR (G) OLD PEOPLE

(Old People and Farmers)

CONSOLATION PRIZE (TOP 60 EXHIBITS)

Name

K. Sravani

School Address

ZPHS Bibinagar,
Yadadri Bhongir

Name of the Teacher

V. Srinivasulu

AIM :

1. To prevent the deaths of the farmers due to snake bite during field visit .
2. To prevent deaths of formers due to electric shocks during their field work
3. To prevent damage of fields due to wild bore like animals.
4. To prevent deaths of farmers and old people due to delay in first - aid.
5. To Prevent injuries and deaths of old and farmers due to accidents due lack of light during nights.

PRINCIPLE : The idea of the this project is to make some mechanical changes in the common hand stick used by the farmers and old people in order to solve the above said problems.

DESCRIPTION : In this device the vibrator arranged at the base of the stick produces vibrations which travel through the ground and reaches the snakes and makes them alert and thus prevents snake bites.

The buzzer arranged the base produces different sounds while using this stick and alerts the animals like wild bore and thus saves the crop of the farmers.

The light arranged at the base of the stick provide lighting during nights for old and farmers and makes them free hand for using torchlight and thus prevents accidents and injuries to these people due to lack of light.

The tool kit arranged in this device is useful for the farmers during their field work and thus prevents deaths due to electric shocks.

The first-aid kit arranged in this device provides first-aid for these people in emergency and saves the lives of these people when they are alone.

8th National Level Exhibition and Project Comeptition

participants

SOLAR CYCLE

Name

A. Pavan Teja

School Address

S.R. Prime School, Adilabad

Guide teacher

Satish Reddy

AIM : Solar cycle works by the help of SOLAR ENERGY.

COMPONENTS : 1) Cycle, 2) 24v DC Motor, 3) 12v DC Pump, 4) 12v Wind Shield Motor , 5) Solar Panel, 6) Solar Light, 7)Four 12v 9ah Batteries, 8)IR SENSOR, 9) Self Switch, etc

PROCEDURE : In this project, after setting up all the parts at their position, first connect the solar panel to solar light then connect the solar light to All batteries. Then connect 2 batteries to the 24v dc motor and the self switch . Next connect 1 battery to 12v dc pump and to a normal switch, and take 2 pipes and connect those pipes to the pump to spray the liquid out. And take some pest fertilizer in a tin or other container and connect that tin to the dc pump so that the liquid can be sprayed out. Next connect the wind shield motor to a IR Sensor and to a battery. And then connect the tip of the brake of the cycle so that when the motor starts running the brake should be applied.

APPLICATIONS :

By this project we can stop the usage of fossil fuels like petrol ,diesel etc.. And can stop global warming. And this cycle gets energy by free of cost by the help of solar energy.

EXTENSIONS OF THE PROJECT :

If can be extended by building AUTOMATIC BALANCE SYSTEM.

LIFE SAVING DEVICE

Name

Kakelli. Manvitha

School Address

ZPHS Gowthampur, Penagadapa
Bhadradri Kothagudem

Guide teacher

Gabbeta. Chandra shekhar

In forest areas hunters are using electric wire traps of fencing to kill the wild animals. Sometimes forest officials and tribes are being affected by these traps. In field formers are getting electric shock by fallen live electrical wires. To survive the lives we are introducing **one working model device**.

This device is like a walking stick or shoe; it can sense the AC power from distant areas.

MATERIAL REQUIRED.

1. 3 resistors.
2. 3NPN transistors.
3. Hallow plastic walking stick and shoe.
4. 1 led light, Buzzer, switch, 9volt Battery.

Its cost is less than Rs.800/-

In Hallow plastic walking stick or in shoe above material is fixed, as given in circuit diagram. If you enter with this stick and shoe into the fields or forests where the electric shock prevailed areas we can detect power. If you stretch the stick or leg with shoe before you step, it indicates the presence of power by a beep sound. In the household purpose also we can use this to check the conductivity and power leakage of wiring from distant area. Like this we prevent the electric shock to save the life.

MODIFIED MANHOLE SYSTEM

Name
SK. Junaid

School Address
Excellent Basha High school,Bayarram
Bhadradri Kothagudem

Guide teacher
A. Suresh

AIM : Making safety, the first priority. Develop a mechanism to overcome the pitiable and helpless situations of the victims and their families due to the manhole accidents.

COMPONENTS: Piston, Spring, Nuts and bolts, Iron sheet(piston plate) , Mesh, Welding machine, Manhole lifting key.

PROCEDURE: This project " Innovative manhole system" is developed basing on the adversities caused when there is raise of water level of roads during monsoon season. Therefore,this project is developed and it works on the principle of piston system. This piston system is placed about half a feet depth from the opening of the manhole and manhole is covered with a mesh instead of a lid to obstruct garbage from entering into the manhole. When pressure of water increases, the piston activates and pushes the plate downwards by the spring compression to create a exit gap for the flow of water into the manhole and after the pressure of water decreases, the spring reverts back and the piston restores its original position blocking the manhole. We know that it is impossible to change the entire manhole system where as this mechanism is a small innovative addition to the existing system to bring out a huge benefit and is feasible in every way to establish a safe, convenient and hygienic condition on roads.

ADVANTAGES :

- There will not be any traffic jam due to open manhole and people reach their destination on time.
- Road accidents due to potholes and skidding could be highly controlled.
- No man power in any form in required to maintain it.
- Proper drainage management is established.
- Blocking of manhole by plastics and polythene is eradicated

AUTO CLEAN URINAL - CUM - WATER LIFT

Name

B.Pooja Jain

School Address

GHS Esamiabazar,
Nampally,
Hyderabad.

Guide teacher

A. Vani Sree

INTRODUCTION :

Atteding to nature call at public place like bus stops, roda sides without using the urinals is the one of the unacceptable habits. Even if there are urinals available at some places ,people donot prefer to usethem because of their unhyginic conditions . Keeping this i want to make this project of AUTO CLEAN URINAL

MATERIAL REQUIRED :

Three water container , Wooden platform , Water lifting arrangement with suction pump springs , seven rubber tubes two stoper cum opener,wire and solar drying box.

WORKING :

Initially the user open and close the door water is lifted up with the help of lsuction pump and fall into the tank kept above the front door . When user stood on the wodden platform uses the urinals one of the tap opend and the other is closed . The water from the tank flow into the collecting container kept on the urinals . When the user getdown from the wooden plat form first tap closed and second tap opend . Water rushes in to the drain and hence drain will cleaned . That cantaminated water passes into thesolar drying box .Give to solar energy the water get into evatorated and condensed into water and flow into the ground tank through pipe

APPLICATIONS :

1. It can be installed at busstations etc
2. It can help prevent infections
3. The water is lifted with out the help of elctricity.

MODEL OF EASY LIFT AND TRANSFER OF PATIENTS IN HEALTHCARE ENVIRONMENT

Name
S.Ravikar Reddy

School Address
Bharatiya Vidya Bhavans Public School, Jubilee Hills, Hyderabad

Guide teacher
Mrs. P. Kavitha

The Easy Lift Raiser (sit to stand) model provides a safe transfer of patients in hospitals to ensure the safety without any injury.

DESCRIPTION:

It comes with handles that attach to the base plate, offering support for users during sit to stand transfers. It comes with a handle that is designed to provide grip. It can turn within its own radius. The model is suitable for confined spaces such as toilets. It has safety strap to hold the patients without falling down.

It ensures the safety of users during short transfers such as wheelchairs to bed, bed to shower chair, wheelchair to toilet seat, etc. It also pays attention to the safety of the caregiver. Caregivers do not have to lift patients up from their beds and wheelchairs, a process that could lead to exertion and injuries.

BENEFITS TO SOCIETY:

The sit to stand model enables the safe patient handling and mobility without any musculoskeletal injuries. It is simple and can be carried to any place easily. Heavy persons can also be lifted easily to wheelchairs, toilet, bathrooms bed etc. which is a very complicated issue carrying patients with abnormalities.

EXTENSION OF THE PROJECT

It can be extended by arranging seat like plate which can be placed under the patient's buttocks so that the patient can be lifted in sitting mode also. In this stage the model can take the patient easily in standing mode and sitting mode also. The model works like two in one *(lifting the patient in standing mode and sitting mode)*

SMART GLOVE

Name
Safiya Begum

School Address
GHS, Seethaphalmandi,
Hyderabad.

Guide teacher
Y. Padmaja

AIM : Using smart glove, we can save the lives of the drivers.

COMPONENTS : ARDUINO UNO Board, BPM digital display, Heartbeat, Sensor, Jumper Wires, Glove, Battery.

BRIEF DESCRIPTION OF THE PROJECT : Truck drivers without taking care of their health, drive day and night. Sometimes they will meet with accidents. To avoid accidents, we have designed a **Smart Glove.** This glove has a heart rate sensor which detects the pulse rate of the driver.

When the driver's health is getting bad, eventually his pulse rate varies.This alerts him about his condition which is displayed on the LCD. So, he will know his health may become worse at any moment. Hence, he will understand and will take necessary measures to save his life.

Further we have programmed the contact numbers of the driver's family members and friends. If his condition is worse it will SMS to their family members.

TWO WHEELER ACCIDENT PROTECTOR

Name
Alaboina Ashwitha

School Address
Chandra Grammer High School, Jagtial.

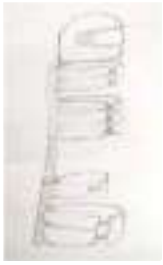
Guide teacher
Madupathi Venu

AIM:- The main motto of Two wheeler Accident Protector is to avoid continuous accidental deaths on two wheelers. Now a days we see accidental deaths everywhere in spite of wearing a helmet.

So, We introduce two wheeler accident protector which protects not only one of the important parts of the body head, but also other body parts neck, chest and waist in order to prevent severe injuries which generally cause to death.

COMPONENTS: Metal plates, Sponge and Rexene

PROCEDURE: The structure like helmet is attached with safety plates which are arranged at neck, chest and waist according to the body size of the rider with sustainability which can play an important role at the time of accident in reducing the injuries. This accident protector is designed in such away it is flexible and suitable to all sizes of the people.



APPLICATIONS: People can save their body parts by wearing this Two wheeler accident protector and it will avoid severe injuries and deaths during the accidents

FUTURE PLAN: Now this Two wheeler Accident Protector is going to be very useful upcoming days in saving the lives because it protects main parts of the human body from accidents. It is so sophisticated and modernized to utilize and safety plates are arranged in a regular jacket which can be worn and removed easily and conveniently.

Source: I got this idea by seeing regular accidental deaths of people who are driving two wheelers and I implemented this Two wheeler accident protector with regular items which are available in the market.

ABSTRACT OF FARMER'S UMBRELLA

Name

K. Amulya

School Address

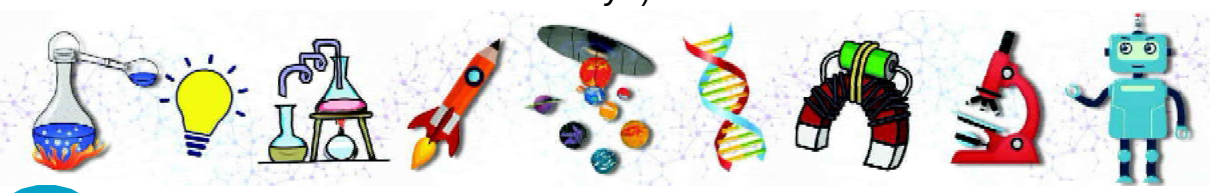
ZPHS Mallannapet,
Mdl: Gollapally
Jagityal.

Guide teacher

P.Ravinder, S.A.(Phy.Sci)

Farmer is back bone to our country. Farming is the main occupation in India. Like sound mind in sound body when the farmer is healthy there is a development in agriculture.

1. For the sake of farmer's health and convenience we designed this Farmer's umbrella
2. Our's farmer's can be tied around the waist with the help belts. There is no need to hold this with hands.
3. To prevent deaths caused by sunstroke we invented this umbrella. We arranged a fan in this umbrella to get cool air. We fixed water pump and jute fabric.
4. An electric bulb is also affixed to this umbrella.
5. Genrally farmers are habituated to go to the fields early in the morning. So this bulb is helpful to them.
6. There is a buzzer is also fixed to prevent snake bite and protection from some animals
7. Farmer's umbrella is useful in all the seasons (i.e. protection from heat in summer, protection from rain in rainy season and protection from snow fall in winter)
8. Pedestrians can also use this umbrella in summer. Not only farmers but also Peddlers, venders, students and shepherds can use this umbrella.
9. It is also useful for women those who worked in the fields (i.e. collection of cotton, collection of vegetables, fruits, weeding and many different ways).



ABSTRACT OF PADDY DRIER

Name

L. Madhukar

School Address

ZPHS Mallannapet,
Mdl: Gollapally
Jagityal.

Guide teacher

B.Ramana Rao, S.A.(Bio.Sci)

AIM : Separation of grain and husk. Also drying the grain very fast.

1. Our country gives more importance to farmers.

2. Farmers are easily harvesting their crop but they are facing so many problems to sell the grain in the market.

3. They are depending only on sun to dry the grain but it takes a long period of time .

4. And also due to heavy rains the grain in the market will destroy and it takes double time to dry them the farmers are losing their time to start the next crop.

5. So to overcome this problem we are introducing a machine PADDY DRYER AND HUSK REMOVER.

6. With this machine We can easily separate grain and husk and also dry the grain as faster comparing to the old method as we resulted that the best drying temperature is 60 degrees to sell the grain.

PADDY STRAW CHOPPER

Name

T. Felin Treesa

School Address

St.Mary's High School, Hyd. Road, Jangaon.

Guide teacher

C. Prabhu

AIM: Farmer friendly paddy straw chopper.

COMPONENTS: wooden pieces, hack saw blades, straw.

PROCEDURE: By seeing the struggles of the farmers who have been using the same old traditional machines to chop the paddy straw, and therefore for a greater transformation in chopping the paddy straw at a low price I have created this project. Farmers are the back bone of our nation in producing a large amount of paddy. Eventually, most of the income to our country is through paddy. Farmers grow high amount of paddy as it is our staple food. After collecting paddy from the field, paddy straw which is left over in the fields is been burnt, this may cause air pollution and also the soil loses much useful bacteria.

The main objective of this project highlights the machine which works on the principle of Oscillatory motion of blades. This machine comprises of two jaws which holds the paddy straws properly to that, one handle is attached with four to six blades. When we move the handle to and fro , these blades start to function and cuts the straw in the jaws and finally the paddy straw chopper allows the paddy straw pieces to fall on to the ground . These pieces can be collected and used for the mushroom cultivation, and also can be used in preparation of organic compost. This can also be started as a small scale industry during off season farmers can earn good income.

With this explanation may I conclude that, this machine reduces labour work and the same is available at low cost.

APPLICATIONS: By this method we can reduce air pollution

- This method can enrich the fertility of soil
- It can be used in agriculture fields.

CRADLEMATIC FOR OLD

Name

Ananthula Lasya Sri

School Address

Resonance Info School,
Khammam

Guide teacher

A. Sirisha

AIM: Cradle Matic for Old is a fully Automatic bed can be controlled with remote.

COMPONENTS: White foam sheets, Battery, wires, DC Motor, Gear Motor, Scissors, Fevi bond, PVC Material, Buzzer, Lever, PCB, and Soldering lead, Pushup buttons, 2-Pipes

PROCEDURE: This project is totally designed for old people and patients who are on bed. This bed can be controlled by the patients by remote. Whenever the patient want to attend a nature call, if he presses a button on remote a nature call, if he presses a button on remote the bed comes to slanting position, if he press another button on remote the commode which is in the middle of the bed opens. After attending the nature called water will be sprinkled and then the commode closes by pressing another button. A wash basin also attached to it. If he needs any help he can press another button, so the buzzer rings and the person near him can hear and can find the problem.

APPLICATION: It can be used in houses, old age homes and in hospitals. The waste material can be sent to septic tank directly, so no need of scavengers helps. No need to use the diapers for the patients.

EXTENSIONS OF THE PROJECT: We can also arrange a sensor for indicating glucose (Celine) level in the Celine bottle.

CHILLI BAG FILLING EQUIPMENT

Name

T.Uday Kiran

School Address

Bala Bharathi Vidyalayam,

Thallada, Khammam.

Guide teacher

K.Praveen

AIM: To Fill the bags with chillies faster with less manpower.

COMPONENTS: Waste iron material available in the garage and construction area, old car shock absorber, two pressing pads with cushion, a cylindrical pipe, handle, two gunny bags and bag holders.

PROCEDURE: We place the bags at the bag holders and pour chillies in them through a cylindrical pipe. We use pressing pads to press the chillies into the bags. Cushions help in avoiding the damage of chillies while pressing. By doing this, we can fill both the bags with in less time simultaneously. Filled bags can be removed and replaced them with empty bags. I used neem leaves for filling bags as we don't get chillies as they were at the time of harvesting. These leaves are lighter than chilli so we can use it.

ADVANTAGES:

As this can be portable and very useful for small farmers. It is a small machine in which only the mechanical power is used, without any electricity or fuel. It is eco friendly as well. I met those farmers and they said we can make up to 200 bags with only four members.

MAGICAL HEXAGON

Name

G. Anudeep

School Address

Paramita Heritage School,
Karimnagar.

Guide teacher

Mr. Lalit Mohan Sahu

AIM : The main aim of this project is to design an advanced , productive , efficient , low cost and portable harvester which satisfies grain loss , stubble burning and productive challenges faced by our farmers.

COMPONENTS : gear motors , metallic finished blades, nails, connecters, iron sheets, iron panels, tyers, battery, wooden sticks, threads, switches, basic circuit components.

PROCEDURE : This project is designed using law of concurrency of diagonals in hexagon principle , the development of harvester involves with initially making out the schematic of the concurrency design. placing out the gear motors , wheels and propelling blades at the required areas in hexagonal structure. installing stubble remover tool at the behind stage of harvester and at the same time installing scissoring action with saw mechanism at the front side area in harvester . finally placing the circuits accordingly to the required action to be done (switches , RC .. etc) and connecting the machine with rechargeable battery.

APPLICATIONS :

1) This harvester will be able to use stubble burning problem , which had become a major challenge for nowadays farmers.
2) This machine gives maximum productivity in terms of power , efficiency , time taken to harvest , then present harvesters .
3) LOW IN COST , Easily affordable and portable
4) Reduces grain loss and again becomes BOON for farmers .
5) Operated at various fields .

HAND GESTURE CONTROLLED WHEEL CHAIR

Name

V. Sanjeetha Reddy

School Address

Alphores High School
Kothapally (H),
Karimnagar

Guide teacher

Rishikesh

ABSTRACT : The aim of this project is to controlling a wheel chair by using MEMS ACCELEROMETER SENSOR (Micro Electro-Mechanical Systems) technology. MEMS ACCELEROMETER SENSOR is a Micro Electro Mechanical Sensor which is a highly sensitive sensor and capable of detecting the tilt. This sensor finds the tilt and makes use of the accelerometer to change the direction of the wheel chair depending on tilt. For example if the tilt is to the right side then the wheel chair moves in right direction or if the tilt is to the left side then the wheel chair moves in left direction. Wheel chair movement can be controlled in Forward, Reverse, Left and Right direction.

This project makes use of a micro controller, which is programmed, with the help of embedded C instructions. This microcontroller is capable of communicating with transmitter and receiver modules. The MEMS ACCELEROMETER SENSOR based sensor detects the tilt and provides the information to the microcontroller (on board computer) and the controller judges whether the instruction is right movement or left movement instruction and controls the direction respectively. The controller is interfaced with two dc motors to control the direction of the wheel chair.

WORKING PRINCIPLE: The system comprises of two parts: Mechanical part and Electronic part. Mechanical Part consists of Wheel chair, Spur gears, DC motors. The wheels of the wheel chair are connected with Spur gears and DC motors to Move the wheel chair. Electronic part consists of MEMS sensor and Microcontroller Unit. Electronic part is used to Move the wheel chair in Different Directions like FORWARD, BACKWARD, LEFT and RIGHT. The MEMS sensor is fixed to a glove. So that the user can wear the sensor easily. When the user move his hand in different directions the wheel chair starts moving according to the direction user gave. The microcontroller takes input from the sensor and controls the DC motors direction with the help of Motor driver circuit.

PEDAL POWERED MULTIPURPOSE MACHINE

Name
V. Srihitha Reddy

School Address
Alphores High School,
Kothapally (H), Karimnagar.

Guide teacher
Rishikesh

ABSTRACT : The aim is to design a human powered multipurpose machine which can be used for many purposes like mobile charging, grinding, washing, cutting. The basic principle of this machine is that when a sufficient amount of energy is produced by means of cycling through the pedal and the energy is transfered to the horizontal shaft. There after energy is transferred to the required machines to run.

1. Power Hacksaw Cutting : The hacksaw moves in fro motion when the pedal is powered, so as the rotating disc rotates. The vice is fixed at the stand to hold the work piece tightly in a straight position. As the pedal is powered by the human energy, the hacksaw blade to move in one and fro motion. When the hacksaw moves, the work piece metal will be cut into a

2. Cell phone Charging : When engaged, the generator wheel rolls against the flywheel. The motion produces electricity, and the greater your speed, the greater the voltage output. The cord from the generator leads first to the circuit board's bridge rectifier, which converts the AC to D.C.

3. Washing Machine : At the end of secondary shaft the bevel gear mechanism is used for the washing machine primary pulley motion. The whole shaft, drum and blades are mounted on the secondary stand. Drum is mounted on vertical shaft and blades are attached to the shaft.

4. Wheat Grinding : At the end of secondary shaft the bevel gear mechanism is used for the wet grinding, the wet jar is arranged on the top of the bevel gear. So that whenever the secondary shaft mates so that the wet jar also rotates with the help of bevel gear mechanism.

SAFETY CRADLE

Name
Sk. Saleem Pasha

School Address
ZPHS Mulakalapally, Dornakal (Mdl), Mahabubabad.

Guide teacher
N. Aruna, SA (Phy.Sci)

AIM: To prevent kidnapping infants(new born babies) from the cradle in hospitals.

COMPONENTS: 1) Power Card 2) Transformer 3) Diodes 4) filter capacitors 5) regulator 6) relay 7) buzzer 8) on and off Switch. 9) push off /on switches -4 , 10) cradle

PROCEDURE: In this project, after setting up there is 230 v A.C current is supplied to step down transformer. It converts into 18 v A.C current.The P-n junction diodes and filter capacitors modifies AC Current into DC current. The connection goes to regulator it also reduces the voltage upto 12 volts DC then we connect to relay. It controls the system containing buzzer, switches and push switches. Four Push switches are connected to cradle.12 v D.C current is supplied to switch and it is at open Circuit level.

When the baby is lifted from the tub of cradle then the push switches will come to their normal position and circuit closes then current is passed into the circuit so that the buzzer will be rang immediately. It indicates the baby is being lifted up then alerts mother or relatives.

APPLICATIONS:

- It is helpful to new born babies to prevent from kidnapping at hospitals.
- The equipment is economy for the hospitals.

EXTENSION OF THE PROJECT:

It can be extended by using sensors and batteries

ELECTRONIC SHOPPING TROLLEY IN SUPER MARKETS

Name
Y. Shiva Krishna

School Address
Z.P.H.S. Pulluru, Garla (M)
Mahabubabad.

Guide teacher
A. Murali Krishna

AIM : To reduce the billing time in Super Market.

COMPONENTS: 1. RFID Reader 2. RFID Tag 3. Micro Controller 4. LCD Display

PROCEDURE : In this Project we used RFID Tags, that tags information like actual cost. Whenever the person keeps the products in the trolley, the products has individual tags, tags are read by the RFID Reader which is attached to the trolley. It will be given to the micro controller. Hence the billing is done by summing the individual product cost. The information will be displayed in LCD. Thus it becomes Easy to bill the amount in super markets.

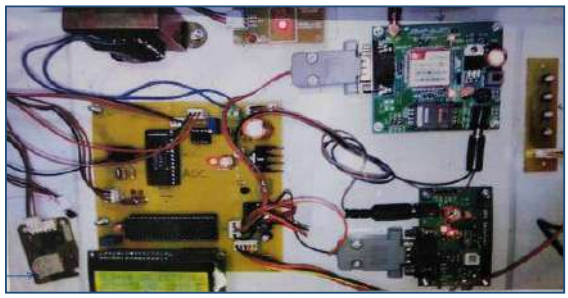
APPLICATION : In the present days automated systems have manual operation flexibility reliability and accurance.

SOLDIER HEALTH & POSITION TRACKING SYSTEM

Name
K. Munna

School Address
ZPHS Nerellapally
Mahabubnagar.

Guide teacher
C. Srinivasulu



AIM:- Soldier health and position tracking by using GPS and GSM

APPARATUS :-Microcontroler,Sim 800 GSM Modem,GPS Modem,Heart beat Sensor,Temperature sensor, Humidity sensor,LCD Display, Plug key ,Resistor, Capacitor, Arduino Compiler, Transistor MC Programing language C, Transistor,Cables and Connector,diodes,LED, Push bottons,Switch, IC, IC Sockets.

PROCEDER:- The soldier health and position tracking system allows mlitory to track the current GPS Position of soldir and also check the health status including body temperature and heart beats of soldier.The system also consist extra feature with the help that soldier can ask for help military or send a distress. Signal to military if he need. The GPS Modem send the latitude and longitude position with link pattern With help of that military can track the current position of soldier.

APPLICATIONS :- The system is very helpful for getting health status information of soldier and providing them instant help.

SIMPLE ARTIFICIAL INTELLIGENCE FOR SECURITY AND SCHOOL ATTENDANCE

Name
V. Manyam Konda

School Address
Z.P.H.S(B), Devarkadra
Mahabubnagar

Guide teacher
Konda Prameela Rani

AIM: To identify students using ArtificialIntelligence and provide security to school.

COMPONENTS: Laptop, Camera, students' photos, Anaconda and Python (Software)

PROCEDURE: In this project, the software's required for the artificial intelligence must be downloaded and installed in the laptop. Enter the program of Face detection and face recognition using python programming language. Train the Artificial intelligence with the photos of school students, so that AI can identifythe school students.

APPLICATIONS: After running the program camera will turn on and identifies the students and teachers in the school. This helps in identifying the students, taking attendance in the school and helps in providing security to the school.AI is also used in Driverless car, Google, YouTube, Voice assistants etc.

EXTENSION OF THE PROJECT: This project can be extended to record students' activities inside the school and notify the school management.

ECONOMICAL MULTI-PURPOSE SCHOOL BAG

Name
Daniel Finny Gummaralla

Guide teacher
B. Nirmalamma

School Address
Hindu Public School, Opp: IDPL Colony, Chintal, Medchal-Malkajgiri

AIM: To provide a school bag with multiple features for rural area students.

COMPONENTS: 1.Biodegradable jute material for bag, 2. Desk, 3. Led light 4. Buzzer, 5. Fan, 6. First-Aid pouch, 7. Solar rechargeable battery, 8. On and off switches.

PROCEDURE : This bag made with Biodegradable material with less weight and low cost .It contain important features like detachable desk which gives student to sit in good posture in turn good handwriting will improve. A LED light can be used in case of poor ventilation in classroom or anywhere and fan can also be utilized for cool air. An safety buzzer is pressed to make alert public in case of critical situations faced by them.These all work on a single solar rechargeable battery. First-Aid kit can be used in case of minor wounds in the play ground.

APPLICATION : This multipurpose bag is applicable for rural areas school students and also it is used by other people who work in different fields to carry things easily.

EXTENSION OF THE PROJECT: It can be extended further with more features such as cover of bag with water proof material and also remodel the same for usage of college students, executives and as laptop bags also with spacious and low cost for public who can't afford more.

FIRE ENGINE WITH DRONE

Name
Y. Manesh

School Address
Nava Jyothi High School,
Quthbullapur,
Medchal-Malkajgiri

Guide teacher
N. Rajani

AIM: Fire engine which works with Drone.

COMPONENTS: 1)Fire engine 2)Long narrow pipe 3)Drone - Controller, Transmitter, Receiver, GPS Module, Drone Frame, Motors with Propellers and Motor Controllers.

PROCEDURE AND WORKING: In this project, the drone is built by assembling the drone frame with motors and propellers .The motors are connected with main controller, receiver and 11.1 V lithium battery. This main controller controls the motors by the commands received from the transmitter.

This drone is connected to hose water pipe which is connected to the fire engine. Whenever the high raised buildings met with fire accidents, the fire brigade team could not reach that height which cause huge property loss and demise of lives. Here in this situation drones can be useful to extinguish the fire. Drone carries the water pipe to sprinkle water which is connected to fire truck.

Fire truck carries the drone to the effected areas. Then the trained fire man can operate the drone to extinguish the fire which is caught to the top of the buildings.

APPLICATIONS: This fire engine with drone can be implemented in the society where the high raised buildings met with fire accidents. It can also be implemented to extinguish the wild fires in the forest.

ADVANTAGES:

- When compared with normal fire engine, this fire engine with drone can reduces the huge property loss and saves the lives of people in a short period of time.
- It is very useful to the society as well as fire fighters.

EASY TO JOURNEY FOR DISABLE PERSONS

Name
D. Swarnalatha

School Address
M.P.Upper Primary School,
Burugupally, Mancherial

Guide teacher
A. Vijay Kumar

AIM : Easy boarding into the bus for disable persons.

COMPONENTS : 1) Micro controller 2)Servo motor 3)D.C. Motor 4)Regulated power supply

PROCEDURE : In this project, first we give power supply to Micro controller, servo motor and D.C. Motor. After power supply, we switch on the button which has specially arranged near the driver seat. Then The servo motor push the special seat to 90 degrees vertically to out side and D.C.Motor push the seat to down. When passengers are sitting on the smart chair, it came up with the help of D.C. Motor. Then the smart chair came back to its place with the help of servo motor.

APPLICATION : Those who are unable to boarding the bus, by this Smart Chair they can be easily boarding Into the bus. Aspecially it is very useful for physically challenged persons and senior citizens.

FEEDING CHAMBER

Name
J. Anjanna

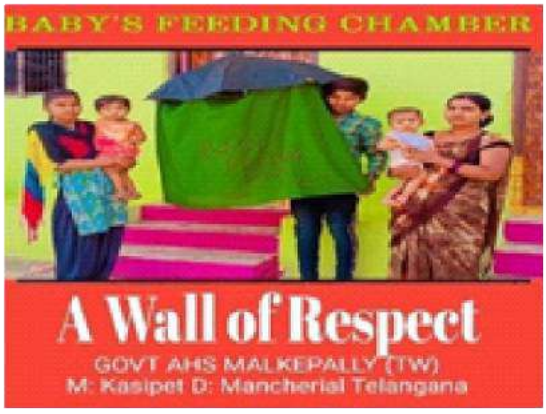
School Address
Govt. AHS Malkepally,
Kasipet, Mancherial.

Guide teacher
VEMULAWADA RAMESH

AIM: Making Feeding Chamber

COMPONENTS: A Small foldable Umbrella, Green cloth (fixed to the umbrella), pressing buttons (08)

PROCEDURE: Take a foldable umbrella, the size of it is to be placed in hand bag. Put pressing button's second part around the Umbrella. Take a piece of cloth which is accurate Lengthy to fix around the Umbrella. Pressing button's first part is to be fixed to the cloth. Then fix that cloth to the umbrella. Now the feeding chamber is ready.



APPLICATION: Here the mothershave beenfacing the problem that when they are in the midst of the people, at bus stand and also in public places. They are shy to give milk openly to their children in front of others. My Equipment shall solve this problem by opening theUmbrella itself, It becomes a CHAMBER. So, they can easily feed the children without any Shy. This is my **FEEDING CHAMBER.A WALL OF RESPECT...**

EXTENSION OF THE PROJECT:

We see the waiting halls, Toilets and Food courtsin bus stands, railway stations, airports etc. We see Toiletsin market areas. With the help of this equipment we would like to bring to the notice of the government to establish the Babies Feeding Rooms in all public areas.That is the great respect to the Mother what we can give her.

CHILD SAFTY DEVICE IN CAR

Name
M. Nikitha

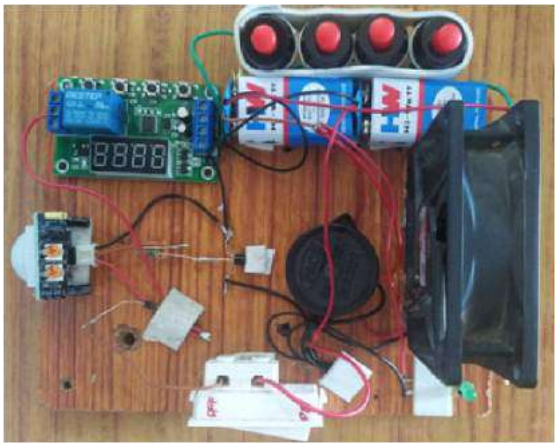
School Address
ZPSS Boregaon, Tandoor, Nirmal.

Guide teacher
M. Venkata Raja Nikhilesh

AIM : *Avoid unwanted childrens death in car.*

COMPNENTS: *pir motion sensor, buzzer, 4 push switches, small fan, on-off buttn, two 9v bateries, LED, YYC-2S function delay timer, transister BC547, 1K ohm resister, diode 1N4007, wires 2-3meters.*

PROCEDURE: *We usually Lock car when park outside. But sometimes we may forgot to lock. After sometime car automatically locks it self. There is time gap usually 5-10 min. Meanwhile this time if any children unfortunately enters into car to play hide and seek, car Locks itself. There is no way to come out. After sometime they will die, due to lack of oxygen in car. To avoid this deaths we should identify children's when they are in car. For this we have to place motion sensor to car ruff. This sensor identifies the children only when the car is off. This sensor works only after 5min of car engine off condition and after all doors closed. We place 4 push buttons to car doors. When children are find by sensor ,it sends signals to car fan to pump air in car cabin to breath, And also sends signals to car security alarm system. so that car makes security sounds, so Outside people can identify that children are stucked in car. This way They can be taken out from car. This way children's life can be saved.*



APPLICATION: *if we use this device in car we can save life's of children's.*

PINK LOO

Name
B. Bhumika

School Address
Z.P.H.S. Kansanpally, Andole,
Sanga Reddy

Guide teacher
C. Siddesh

AIM: comfortable and healthy toilets for female.

Useful for pregnant women, old women, and knee joint pain patients'. To prevent urinary tract problems in women.

COMPONENTS: flush tank, liquid soap bottle, water pressure gun, upvc pipes.tape

PROCEDURE: as we know till today there is no standing peeing toilet for females. By our traditional toilets girls, ladies, pregnant women, knee joint pain patients suffer a lot when they used it. Our pink loo toilet is designed for ladies can pee as men in standing position. It made urinal track at distance so that odour will less. It is deeper in size so UTI problems will be prevented. It is compatible for all personalities so every person can use . especially pregnant women, old person, joint pain patients.

APPLICATION: it can be used in schools,colleges,hospitals, railway stations, busstands, theatres, and public toilet places.

MOVABLE ROAD DIVIDERS

Name
Azmeera Prasad

School Address
Zilla Parishad High School,
Balemla, Suryapet.

Guide teacher
G.Ramesh Babu, SA (Phy. Sci)

INTRODUCTION: Commonly we use the fixed dividers in the middleof the road to separatethe road into two equal partsfor easy movementof vehicles.

PROBLEM FINDING: During the morning hoursmore people travel towards their workplaces fromresidential areas and in the evening hoursvice - versa.This traffic problem is observed in Metro Cities,around some specific places like IT Hubs / Industrial Areas /Educational Institutions/ Bus or Railway Stations.

SOLUTION:To overcome this traffic issue, we suggest one simple solution which is "**Adjustable Dividers**".Using this idea we can divide the road into two parts as both sides having equal width or as wider in the direction of heavy traffic and narrower in the opposite direction.

BENEFITS: It is cost effective as we are solving the traffic problem without extending the road area by demolishing the commercial or residential buildings.We can make use of the roads upto full extent by sliding these dividers manually or automatically whenever required.

EXTENSION OF THE PROJECT: We can use Smart CC cameras, Artificial Intelligence (AI)poweredsensors to gauge traffic density. We slide the dividers with the help of remote controlled/ automatic sensor based mechanical wheels.LED indicators/ display screens, voice announcements via speakers are used tocaution the passengers about the movement of dividers while they are sliding.

CEILING FAN LIFTING TOOL

Name
D. Ashok

School Address
ZPHS Gokafasalwad, Doulthabad mandal, Vikarabad

Guide teacher
Shanth Kumar A

AIM: To reduce the work pressure of electrician white fitting the fan through fan lifting tool.

COMPONENTS: 1) Iron Pipes (2inch and 1inch)2) Clutch wire 3) Wheel 4) Bolts and Nuts 5)welding

PROCEDURE: First a stand must be prepared in which each part can be separated.

1. Two ladder like stands are prepared, these two stands joined by using bolts and nuts.
2. A top base is prepared in the middle of that a jack like structure is made.
3. The top base is placed on the top of the ladder like stand, bolts and nuts are used to join these.
4. An auto clutch wire and a wheel are used to pull the jack up and down.

APPLICATIONS:

1. By using this tool single person can lift a ceiling fan without holding it and we can fit it as well.
2. We can use it for painting purpose for holding the paint bucket.
3. Used in cement plastering purpose to hold the cement container/basket.
4. Used in lifting weights
5. Also used as a ladder in shops or in house.

It do not take much space to store as its parts are detachable and easy to carry as well.

EXTENSIONS OF THE PROJECT:

This manual tool can be converted into a power tool by arranging a motor and wheels to it. This will help in lifting by using power. Stand can be moved all corners of a room while painting and plastering.

MULTIPURURPOSE WALKER

Name
Madasi Harshitha

School Address
U.P.S Nagaiahpally,
Mandal, Athmakur,
Warangal (Rural)

Guide teacher
Parikipandla Venu

AIM : To identify the problems of Walker users and making comfortable arrangements to the walker.

COMPONENTS : 1) Walker 2) 3mm steel rods 3) Plastic Seat 4) Rectangle plastic box 5) Round steel box 6) Leather pouch 7) Sponge 8) Plastic hand rest sheets 9) Bolts and nuts

PROCEDURE: Old age people and post Ortho operated people use walkers. But they are tired very much when they are walking with the help of walker when they want to take rest there is no comfortable seat to sit. We have arranged plastic seat in the middle and a rectangular plastic box to the left side of the walker for putting Medicines and Cell Phone and have arranged a steel box to the right side for water bottle, and back side a leather pouch for News paper and Magazines.

APPLICATION : If the person taking a walk want to sit due to tiredness he can remove the half seat from the sides and connect it with interlock system. If he wanted to use mobile, medicines and water the necessary arrangements are provided.

EXTENSION OF THE PROJECT: We can extend this Multipurpose Walker to walk up on stairs or an altitude with special arrangements so that it can be easier to go upstairs.

AUTOMATIC GAS CYLINDER ALERTING SYSTEM BASED ON LOW WEIGHT

Name
G. Vijay

School Address
ZPHS Keshavapur,
Akkannapet, Siddipet.

Guide teacher
MD. Raj Mohammed

AIM: To give Solution for all Single Cylinder LPG Gas Consumers in Rural and Urban Arears

REQUIRED MATERIAL: 1. Load Censor or Load Cell, 2.LCD (Liquid Crystal Display)

3. Arduino board, 4. Adopter or Battery, 5.Buzzer or small speaker,6.Atmega328 microcontroller

WORKING PRINCIPLE: Measuring the weight of Cylinder with help of Load Cell andconvert into the analog to digital on LCD and alert through alarm with help of Micro controller

PROCEDURE: Taking the rectangular cardboard then fix the Arduino microcontroller, load sensor, digital converter, LCD display, buzzer or speaker. Now connect the load sensor, digital convertor and micromicrocontroller in a series and also connect LCD display, Buzzer in parallel. Then give 12 volts power to this system. Place LPG cylinder(Load) on the load sensor then switch on the power supply. Load sensor detects the weight of the cylinder sends to display through microcontroller. Thus we can monitor the weight of the cylinder. We program the required weight in Arduino. When we consume the Gas in cylinder decreases its weight reaches the programed weight then it alerts us through buzzer. Thus we can monitor and book the refill

APPLICATIONS:

1) It is used to monitor continuous weight of the LPG Cylinder
2) It helps to overcome the inconvenience to consumer in getting LPG Gas Refill
3) It helps even illiterate people in getting refill in time 4) It helps to Save the Energy

CURRENT SHOCK DETECTING UMBRELLA

Name
Balla Neha

School Address
Spring Dales Grammar High School, Siddipet

Guide teacher
P. Krishna Kumar

AIM: To detect current in wires to avoid electric shocks from a distance.

MATERIAL REQUIRED: BC 547 Transistors-2,LED bulb,Piezo Buzzer,4V battery,insulated copper wire and an umbrella.

WORKING PRINCIPLE: A non-contact current detector connected to an umbrella to increase it's range from 5cm-5ft by winding insulating copper wire to the spokes.

WORKING & USES:

- This device is a non-contact voltage detector.It is the safest way to make sure the power is off without touching any wires.The tester will lightup and make noise(beep sound) when it comes close to a hot(live) wire even one that's covered in plastic insulation.
- It is also used to find the polarity(phase/neutral) of electric wires.
- It can detect electricity from 12V to 200V,5-6ft away from the high tension wires.
- Especially in rainy season we face many problems by getting electric shocks near by electric poles and transformers.If we connect this circuit to an umbrella it becomes handy and increases it's range from 5cm to more than 5ft by winding an insulated copper wire around the spokes of the umbrella.

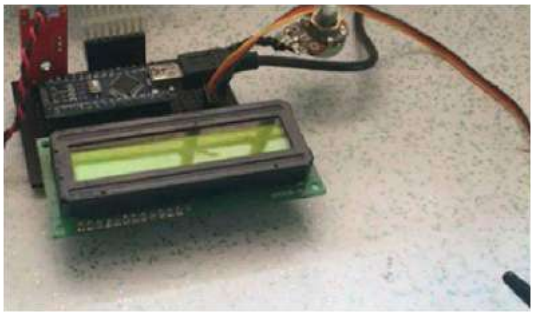
It is an important and useful device for all the people especially for farmers,electricians and who goes out during the rainfall.

WHISTLE COUNTER

Name
Pranav Madhavaram

School Address
St Mary's vidyaniketan high school, Gajwel,
Siddipet

Guide teacher
Sanjeev



AIM:

To save food, gas, oil

1) To make people free of worries for counting whistles

MATERIALS:

1) Ardiuno UNO
2) LCD
3) Sound sensor FC-04
4) Key Pad
5) Servo motor SG-90
6) Connecting wires
7) Power Suppy
8) Breadboard

PROBLEM STATEMENT

People with a hearing disability or busy house wives are sometimes unable to keep track of the how many times the pressure cooker has whistled. This Arduino-based device will assist them to overcome the problem.

PROJECT DESCRIPTION

This is an Arduino-based project to help hearing disabled persons or housewives keep track of the pressure cooker's whistling. Whenever the cook is not around, this device will record the number of times the pressure cooker whistles using a sound sensor. And whenever that number matches with predefined number this device will start beeping thus alerting the user and the stove will automatically switched off.

WATER TANK CLEANER

Name
Kanuganti Bhagya

School Address
Z.P.G.H.S. Mirdoddi,
Siddipet

Guide teacher
J. Ganga Bhagirathi

AIM : To Live Healthy Life

REQUIRED MATERIAL: Long nut and bolt, brushes, aluminium strips, plastic pipe, Pvc pipe, volve, elbow, plastic bottle

PROCEDURE: We prepared an extra-ordinary Project for cleaning water tank without getting into it, and undergoing suffocation(breathing trouble)Cleaning of water tank can be take up in 2 steps.

Step I: A Nut-Bolt Brush with stand is fixed to overhead tank. When the handle of bolt is rotated clock wise direction it slowly goes in to the water tank while moving in to the water tank,the brushes which are attached to the long nut cleans the sides of water tank and cleans the bottom of the water tank. In the same way the brushes attached to the bolt again cleans the Sides of water tank when the nut rotated in anti-clock wise direction and moves upward in the tank.We can use tank cleaners Like bleaching powder while cleaning with Nut-Bolt Brush.

Step- II: After cleaning with Nut-Bolt Brush the dirty water and Sediments remainat the bottom of the water tank. Which we Cannot move easily. Now we can use pressure & Gravity water remover This water remover works with the Siphon principle i.e., pressure and Gravity. This remover has two ends one is Sucking End, another one is releasing end for plastic pipe. Fill the pipe with water from a bucket of water, making sure there are no air spaces present and the Funnel at sucking end is partially filled. Block up the releasing end with a Ball volve and hold the sucking end vertical so that water stays contained in the pipe. When ready, plunge the Sucking end in to the tank water, then position the releasing end in bucket and ballvolve on. Water begins flow out the tank in to the bucket and we can now suck up any accumulated debris the bottom of the water tank. Now the water tank is cleaned without getting into it. and without any problem.

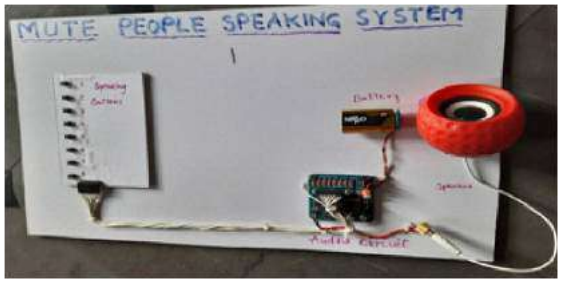
MUTE PEOPLE SPEAKING SYSTEM

Name
Payyavula Akshaya

School Address

ZPHS Gatlamalyala
Nangunoor, Siddipet.

Guide teacher
M. Ramulu, S.A. (Phy.Sci)



AIM: Reduce the communicable problems of Mute People.

COMPONENTS: 9 Volts Battery, Audio Circuit, Speaker, Audio Switches, Re-Recordable,

Switches, IC, Battery Clip, Capacitors.

WORKING PRINCIPLE: Conductivity in switches for Audio System with re-recording update voices.

PROCEDURE: In this project after setting of the system and making all the necessary connections we record the voices whatever we want. For example 1. I want a Coffee 2. I want a Paracetamol Tablet like this we are able to record eight different voices are available to record with the help of helpers. It is a wonderful device and very useful in the journey or when we go to hotels or offices and other places.

EXTENTION OF THE PROJECT: It is useful to communicate to the people without helpers when we go to Shopping Malls, Hotels, know the address of offices and booking for CABS and many other communicable systems. The size of the device can be compressed to portable and it can be inserted in the pocket. The input given as a text and it can convert into Audio mode.