3.2.1 Institution has created an eco system for innovations, and has initiatives for creation and transfer of knowledge.

INSTITUTION INNOVATION CELL

Innovation is conversion of idea leading to improvement in way of doing things depending on availability of resources with guidance from those who are more experienced around us.

Objectives of the Cell

- To motivate students to bring out their hidden talents in various disciplines of Engineering,
- To provide platform to realize and believe in themselves.
- To empower students to become young entrepreneurs.
- To create an innovative environment for the students to discover, develop, deploy and express their skills and talents.
- To motivate students to take part in Hackathons & prototype development, Technical Tutorials.
- To encourage students to carry out their hidden talents in various disciplines of Engineering.

IIC – Council

The institution is providing training programs to students in addition to that innovation to idea development, entrepreneurship for employability and CRT programs for skill development

The Institution provides contributing environment for promotion of Innovation and Incubation. All required facilities are provided and Guidance is extended to the students for their research and innovative projects. Students are encouraged to involve actively in the usage of Technology for societal needs. Required level assistant is extended for preparation of required documents, publication of research papers and also for obtaining patents.

Awareness meets, workshops, seminars and guest lectures are organized to develop entrepreneurial skills. The institution is providing opportunities to students to interact directly with the outstanding

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entrepreneurs who are excelling in their areas. Marketing awareness programmes are also conducting to inculcate marketing skills which highly useful to market their products.

Students are encouraged by arranging needed financial support to undertake major and minor research projects which useful to their professional career in particular and society in general.

The institution is also conducting workshops on trending technology to create awareness. Students are encouraged to held model expos which help them to gain hands on experience and good industrial knowledge and awarded with cash prizes for best ones.

Students are encouraged to map their latest innovative ideas and innovations for society use. Students carried out their innovations in designing and fabricating the vehicles and participated in various competitions.

During the last five years PhD faculties published various research papers in reputed and indexed journals and working actively in the research in their domain areas.

The institution has been conducting contests on emerging trends and HACKTHONS through which students will be exposed to latest industrial requirements.

The institution extends needed financial support to students who participates contests and competitions held by other organizations to exhibit their ideas and models. This helps the students to grab the opportunity to acquire additional skills and market their products. The Local Entrepreneurs are invited to address the students and inspire them to move towards startups.

This institution invites eminent experts as guest lecturers from other academic institutions and industries to facilitate the students in multi-disciplinary areas and establish networking with the other organizations.

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The institution started Industry-Institute Partnership Cell (Training and Placement Cell). This Cell facilitates interaction with industries and corporate establishments for the following activities:

- A large number of job-oriented skills are offered to students in cooperation with industry experts
- Campus Recruitment Training (CRT) Programs are organized for students of this college and other neighbor colleges.
- A liaison between the Institute and industry is established for consultancy.
- Summer training of students to familiarize them to practical industrial problems.

PADDY PLANTING MACHINE

The IIC of Vaageswsari College of Engineering has been encouraging the students to undertake innovative activities. Mr. Sai Srujan student of B.Tech Mechanicle Engineering invented the seed palnt machine which highly useful to farmers in planting Paddy seeds in modern way.

Mr. Sai Srujan final year student of B.Tech Mechanicle Engineering had participated state level program named INTITA INNOVATION Exxihition by the Government of Telangaana under the guidance of professor Ch. Srinivas, professor of Mechanical Engineering. His project work titled "Semi Automatic Paddy Planting Machine" was selected for state level program named INTITA INNOVATION Exhibition by the Government of Telangaana. Karimnagar District Collector Mr. R. Karnan felicitated Mr. Sai Srujan for his innovative work.

Abstract of the Project work:

In India we are facing labour scarcity for transplanting seedings in the field, for this problem we are designed a semi automatic Paddy planting machine. By using this machine we can reduce cost and time of transplanting.

Our semi-automatic paddy planting machine is useful for many Indian farmers. The current market full automatic paddy planting machine is 3-6 lakhs. Most of the Indian farmers are from a middle class family who cannot afford the machine for 3-6 lakhs. That is why I designed a semi-automatic paddy planting machine, and the cost of this machine is in between 40-50 thousand.

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Traditional Way of Planting	Semi-Automatic Paddy Planting Machine

Department of Mechanical Engineering
VAAGESWARI COLLEGE OF ENGINEERING
(Affiliated to JNTU, Hyderabad & Approved by AICTE)
Ramakrishna Colony,Karimnagar-505481.

CERTIFICATE

This is to certify that the major project report entitled **"Semi Automatic Paddy Planting Machine"**, submitted by following students, in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Mechanical, is a Bonafide Record of the work performed by following students

CH.SAI SRUJAN	**(17S45A0308)**
M.SAI CHARAN	**(17S45A0319)**
B. RAJ KUMAR	**(16S41A0302)**

The work embodied in this dissertation has not been submitted to any other institution for the award of any degree.

HEAD OF THE DEPT.
Mr.M.KIRAN KUMAR,
Asst. Professor.

INTERNAL GUIDE&PRINCIPAL
Dr.CH.SRINIVAS,

EXTERNAL EXAMINER

1

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KARIMNAGAR-505 527.

Principal
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KARIMNAGAR-505 527.

Applications invited for 'Intinta Innovators'

HANS NEWS SERVICE

Karimnagar: As part of 'Intinta Innovator' scheme, the State government is providing good opportunity for exhibiting new and variety innovations on the occasion of Independence Day on August 15, informed District Collector K Shashanka.

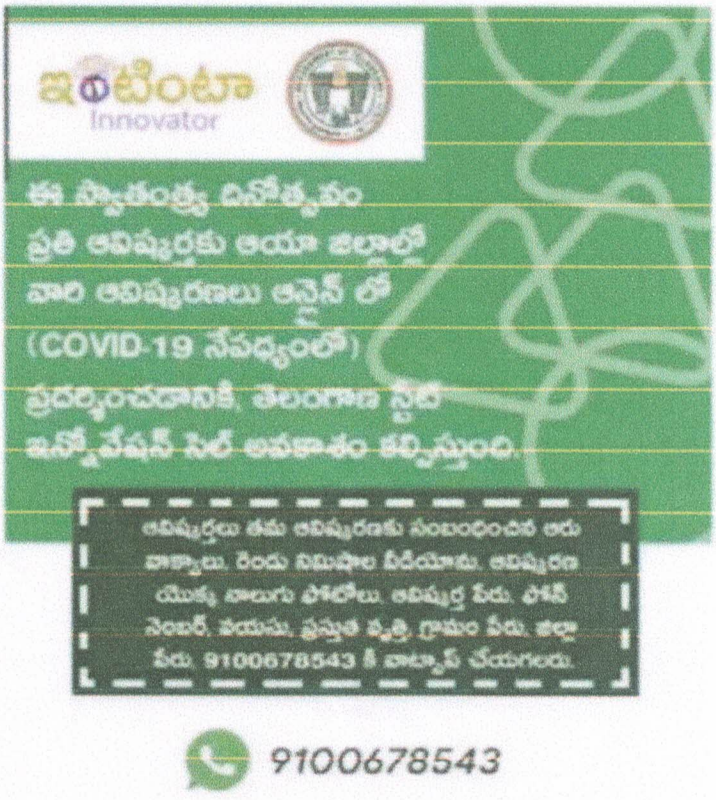
In a statement released here on Sunday, Collector Shashanka said persons, who are interested to show their skills in start-up, micro and small scale industries sector, can apply from July 1 to July 15 to A Vijay, Programme Officer of TSIC, on WhatsApp number 7032478688 or to Pranay Kumar, Senior Innovation Officer, TSIC on WhatsApp number 7799042489 or else, they can send their application to prannay.tsic@telangana.gov.in

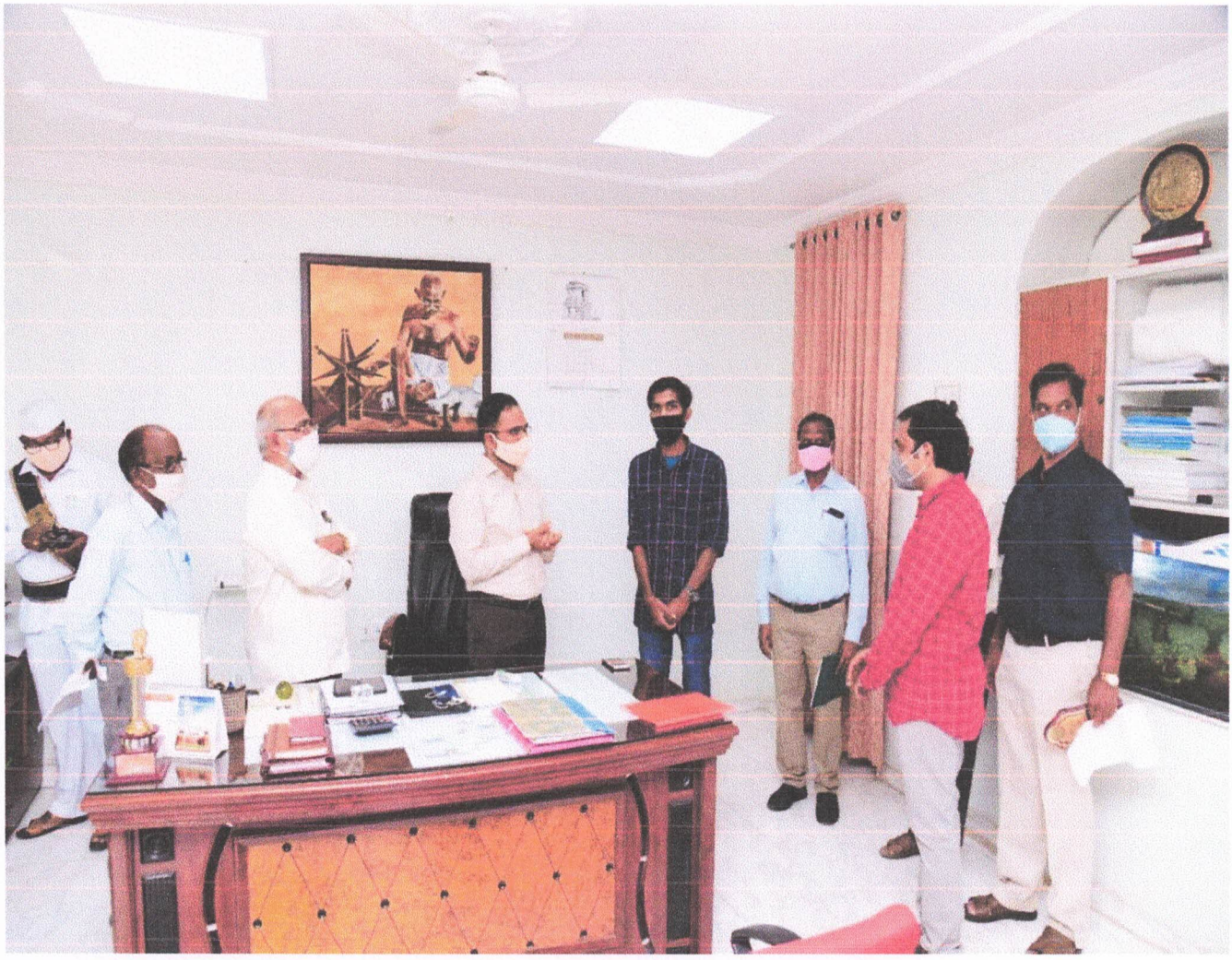
The innovations will be pursued by Telangana State Innovative Cell until July 20 and the selected ones will be exhibited on Independence Day through virtual exhibition, he informed.

This is a rare opportunity for young scientists, students and new innovators to show their skills in two categories one at village and the other at town level in the start-ups, micro and small-scale industry categories.

Collector Shashanka said the Telangana State Innovation Cell in order to encourage young and interested innovators started the programme titled 'Innovators in every household'. The video of innovation must not exceed 15 seconds of time with all details in five phases. The candidates of the scheme must send the name of their innovation, mobile number, village, mandal and district they belong without fail, he added. The officials of agriculture, district and rural development and education departments including the principals of degree and PG colleges along with the officials of District industries department must create awareness about the programme and must encourage the students and youth and young scientists to participate in the programme.

Mandal-level officials and Tahsildars must give a wide campaign in their jurisdiction areas about the Innovators in every household programme, he ordered.





Student Mr. Sai Srujan (5th person from left) and faculty Mr. G. Arun Kumar (in red shirt) were explaining the project details of Paddy Planting Machine to Karimnagar District collector Mr. Shashank.

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Karimnagar District collector Mr. Shashank facilitating Mr. Sai Srujan

Karimnagar District collector Mr. Shashank is presenting memento to Mr. Sai Srujan. Other District Officials also presented.

Group photo of award winners in "INTINTA INNOVATROS" competition with Karimnagar District Collector Mr. Shashank and other officials.

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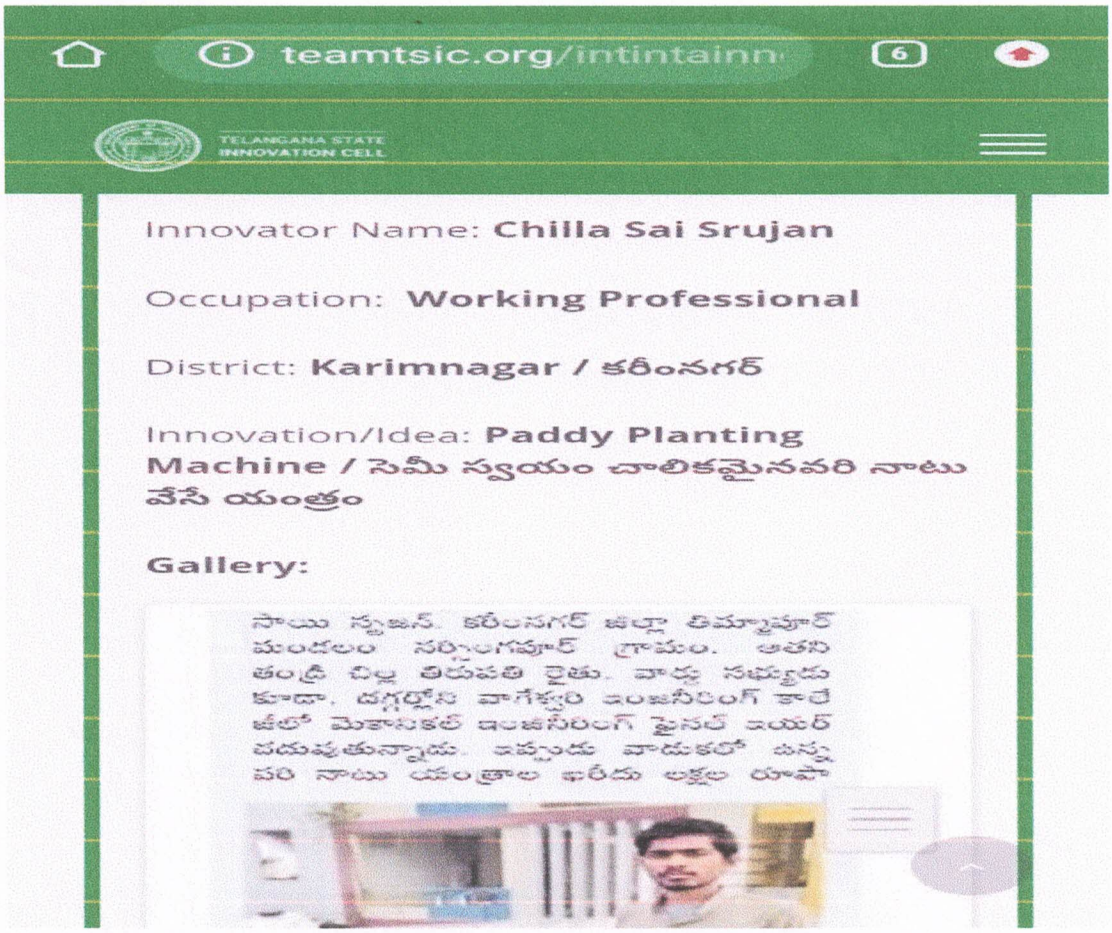

ANVESHANA – CIVIL ENGINEERING STUDENTS

WASTE WATER MANAGEMENT

In 2018, III Year I Semester B.Tech. Civil Engineering students participated in "Science Engineering Fair - Anveshana " conducted by Agastya Foundation at Visvesvaraya Bhavan, Khairatabad, Hyderabad. Under the guidance of Mr. K. Rajesh, Associate Professor and Head, Department of Civil Engineering, four students developed Purification of Waste Water under Waste Water Management Program and the same was exhibited in the Anveshana.

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COLLEGE NAME (FULL NAME)	Vaageswari College of Engineering(S4)
COLLEGE ADDRESS	Beside L.M.D Colony, Karimnagar
PRINCIPAL NAME	Dr.CH.Srinivas
PRINCIPAL EMAIL ID	S4.principal@gmail.com
CONTACT NUMBER	9502588609
COLLEGE WEBSITE	www.vgsek.ac.in
STATE	Telangana
DISTRICT	Karimnagar
PIN CODE	505408

PROJECT GUIDE INFO		**Project Guide PHOTO ID (College ID)**
PROJECT GUIDE NAME	**Mr.K. Rajesh**	
GENDER	**Male**	
DEAPARTMENT	**Civil Enginering**	
DESIGNATION	**Associate Professor**	
MOBILE NUMBER	**9133245888**	
EMAIL ID	**vaageswaricivil@gmail.com**	

COLLEGE STUDNETS INFO - TEAM LEADER		
TEAM LEADER NAME	Sriramula Akhila	
GENDER	Female	
SEMESTER	3-1	
MOBILE NUMBER	9959732759	
EMAIL ID	sriramulaakhila@gmail.com	
COLLEGE CATEGORY	JNTUH	
DEAPARTMENT	Civil Engineering	
HOD NAME	Kodurupaka Rajesh	
HOD CONTACT NUMBER	9133245888	
HOD EMAIL ID	rajesh.vitsce@gmail.com	

COLLEGE STUDNETS INFO - PARTNER 1		
PARTNER 1 NAME	Siripuram Saisnehitha	
GENDER	Female	
SEMESTER	3-1	
MOBILE NUMBER	9515575614	
EMAIL ID	siripuramsaisnehitha@gmail.com	
COLLEGE CATEGORY	JNTUH	
DEAPARTMENT	Civil Engineering	
HOD NAME	Kodurupaka Rajesh	
HOD CONTACT NUMBER	9133245888	

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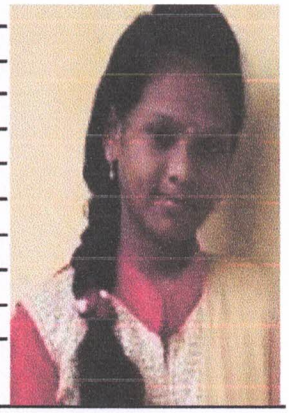
HOD EMAIL ID	rajesh.vitsce@gmail.com
TELEPHONE NUMBER	

SCHOOL STUDNETS INFO - STUDENT 1		**Student 1 PHOTO ID (School ID)**
SCHOOL STUDENT 1 NAME	Lingala Anil	
GENDER	Male	
CLASS	B.Tech. Civil – III - I	
FATHER NAME	Lingala Rajesh	
CONTACT NUMBER	9963078355	
SCHOOL NAME	Z.P HIGH SCHOOL(Sitharampally)	
SCHOOL ADDRESS	Sitharampally, Mancherial	
HM CONTACT NAME	S.Ramesh	
HM CONTACT NUMBER	9963078355	
SCIENCE TEACHER NAME	B.Krishna	
SCIENCE TEACHER CONTACT NUMBER	7780613209	

SCHOOL STUDNETS INFO - STUDENT 2		**Student 2 PHOTO ID (School ID)**
SCHOOL STUDENT 2 NAME	Boddukuri Sathwika	
GENDER	Female	
CLASS	B.Tech. Civil – III - I	
FATHER NAME	Boddukuri Srinivas	
CONTACT NUMBER	8639736476	
MOTHER NAME	Boddukuri Swapna	
CONTACT NUMBER	8639736476	
SCHOOL NAME	Aditya Techno High School	
SCHOOL ADDRESS	C.C.C-X-Road,Naspur, Mancherial	
HM CONTACT NAME	G.Thirupathi	
HM CONTACT NUMBER	9963078355	
SCIENCE TEACHER NAME	B.krishna	
SCIENCE TEACHER CONTACT NUMBER	9908690093	

ACCOMMODATION FACILITY (DURING THE FINAL EVENT FOR 2 NIGHTS)	
PROJECT GUIDE	Nampally Anil
TEAM LEADER	Sriramula Akhila
PARTNER 1	Saisnehitha

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STUDENT 1	Lingala Anil
STUDENT 2	Boddhukuri sathwika
TOTAL ACCOMMODATION	5

PROJECT CATEGORY	
THEME	Waste water Treatment and reuse
FOCUS AREA	Domestic and Industrial waste water treatment
SUB TOPICS	
	PROJECT DETAILS
PROJECT TITLE	Waste water Treatment and reuse
IDEA	Domestic and Industrial waste water treatment
PROJECT SYNOPSIS	• My project name is waste water treatment and reuse. At present the underground water level is decreasing day by day. So to overcome that problem we are using water purification process. In this process the less polluted water is treated by some purification methods. After the purification of water these water is useful for agriculture process and for some industries like(thermal). coming to the purification process we are getting polluted water from industries and houses. So here we have drainage and some polluted water..if we apply treatment by mixing of two types of water complexity increases and cost also increases so it is not economical.. inorder to achieve economical operation we need to treat two types of water(drainage and less polluted water) separately by using some purification methods..so if we do like this we can get more purified water..and we can reduce water crisis.
INNOVATION(What new in your project)	• At Present Scientist are doing experiment on mixing of less polluted and drainage water but we are separately using the treatment process for less polluted water so we can get the more output compared to mixing of water.

BENEFITS OF YOUR PROJECT TO THE SOCIETY	• The water problem will be solve • With less cost we will get the more purified water • We can use this purified water for irrigation purpose and industrial purpose and house hold purpose • By using this process we can get sufficient water in draughts situation
WHAT IS BASIC SCIENTIFIC/ENGINEERING/DESIGN PRINCIPLE INVOLVED IN THE PROJECT	How the polluted water purified and modern plan for arrange water pipe lines in the city
SPECIFY WHAT YOU WILL BRING TO FINAL COMPETITION	Purification process of polluted water
SIZE OF THE MODEL(L*B*H)IN INCHES	40*20*10
LEARNING ASSOCIATED WITH THIS PROJECT FOR YOUNG LEARNERS	How polluted water purified with less cost and how we can reduce water crisis
BUSINESS PLAN	
COST OF THE PROJECT	3000

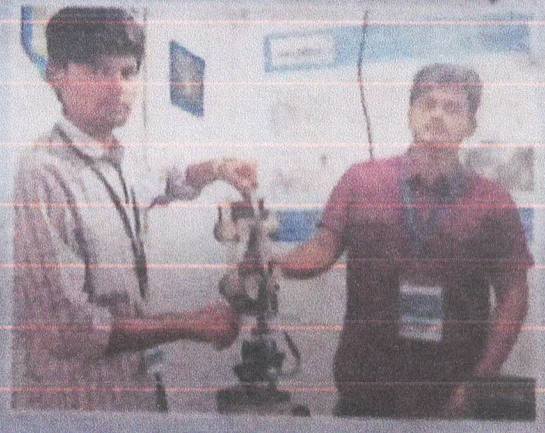
అన్వేషణ వ్యాల్యూమ్‌ను ఆవిష్కరించిన జయేష్ రంజన్

విద్యార్థులు ఉపాధి కల్పించే స్థాయికి ఎదగాలి

● ఐటీ ముఖ్య కార్యదర్శి జయేష్ రంజన్

పంజాగుట్ట: విద్యార్థులకు పరిశోధనలు, ప్రయోగాల ద్వారా విద్యను బోధించాలని అప్పుడే వారి మేధస్సు వికసిస్తుందని తెలంగాణ ఐటీ శాఖ ముఖ్య కార్యదర్శి జయేష్ రంజన్ పేర్కొన్నారు. మంగళవారం ఖైరతాబాద్ విశ్వేశ్వరయ్య భవన్‌లో అగస్త్య అంతర్జాతీయ ఫౌండేషన్ అన్వేషణ 2018 పేరుతో ఏర్పాటు చేసిన సైన్స్ ఇంజినీరింగ్ ఫెయిర్‌కు ఆయన ముఖ్య అతిథిగా హాజరయ్యారు. ఈ కార్యక్రమంలో ఆయన మాట్లాడుతూ ప్రతి విద్యార్థి ఉద్యోగం కోసం ప్రయత్నించకుండా తామే ఒక సంస్థను నెలకొల్పి 10 మందికి ఉపాధి కల్పించే స్థాయికి ఎదగాలన్నారు. రక్షణ శాఖ మాజీ సలహాదారు వి. కె. ఆత్రేయ మాట్లాడుతూ దేశాభివృద్ధి సైన్స్‌పై ఆధారపడిందన్నారు. బీడీఎల్ చైర్మన్ భాస్కర్ మాట్లాడుతూ విద్యార్థులు సరికొత్త పరిశోధనలు చేయాలన్నారు. అగస్త్య ఇంటర్నేషనల్ ఫౌండేషన్ [illegible] ఆపరేషన్స్ త్యాగరాజన్,

శుద్ధి తీరును వివరిస్తున్న విద్యార్థిని



బోరు బావిలో పడిన వారిని రక్షించే పరికరం, కెమెరా

Mr. Jayesh Ranjan, chief secretary, Department of IT, Telangana government, said that faculty should teach their students through research and experiments. Then only intellectuality of students will grow. As a chief guest he inaugurated the "Anveshan – 2018", A Science and Engineering Fair, organized by International Foundation in Visvesvaraya Bhavan at Khairathabad, Hyderabad. He delivered a message to gatherings and said 'students should focus to start an enterprise and provide employment to others instead of seeking employment from others. V.K. Athreya, former chief adviser to defense, quoted that 'nation's development is highly depends on science and technology'. **Sriramula Akhila and team of Vaageswari College of Engineering, Karimnagar, was participated and exhibited the project on Waste water management (top photo) in the fair.**

INNOVATION OF MULTI AGRO BIKE

Mr. Md. Asifuddin (14S41A0326), Md. Abdul Hadi (14S41A0327), Md. Abdul Aleem (14S41A0329) and Md. Shoheb Baig (14S41A0363) students of B.Tech Mechanical Engineering invented the **MULTI AGRO BIKE** which highly useful to farmers in ploughing and leveling of the land with a single bike in modern way.

With this bike along with ploughing the leveling operations can be done just by adjusting the levers. The two operations are arranged on single bike as the ridgers which are used for ploughing. These are arranged below the engine with good ground clearance by which the ploughing process can be done easily. The leveler is arranged at rear of the vehicle by which leveling process can be done easily.

Objectives of the Project: The main objectives of this bike are

1. Low fuel consumption and fast multiple operations,
2. Reduction is cost and
3. Increase in productivity.

Principal
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KARIMNAGAR-505 5

"MULTI AGRO BIKE"

A Major Project report submitted in partial fulfillment of the requirement for the award of the Degree of

BACHELOR OF TECHNOLOGY

In

MECHANICAL ENGINEERING

BY

MOHAMMAD ASIF UDDIN	14S41A0326
MOHAMMED ABDUL HADI	14S41A0327
MOHAMMED ABDUL ALEEM	14S41A0329
MOHAMMED SHOHEB BAIG	14S41A0363

Under the esteemed guidance of

MR. B.RAVINDAR (PhD)

Associate professor

&

HOD

DEPARTMENT OF MECHANICAL ENGINEERING

VAAGESWARI COLLEGE OF ENGINEERING

(Approved by AICTE, Affiliated to JNTUH, Hyderabad)

Beside LMD Police Station, Karimnagar-505 481.

(2014-2018)

Principal
Vaageswari College of Engineering
KARIMNAGAR-505 52

VAAGESWARI COLLEGE OF ENGINEERING

(Approved by AICTE, Affiliated to JNTUH, Hyderabad)
Beside I.M.D Police Station, Karimnagar-505 481

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "MULTI AGRO BIKE" being submitted by

MOHAMMAD ASIF UDDIN	14S41A0326
MOHAMMED ABDUL HADI	14S41A0327
MOHAMMED ABDUL ALEEM	14S41A0329
MOHAMMED SHOHEB BAIG	14S41A0363

In partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in **MECHANICAL ENGINEERING** to the Jawaharlal Nehru Technological University is a record of bonafied work carried out by him under my guidance and supervision. The results embodied in this project report have not been submitted to any other University or Institute for the award of any Degree or Diploma.

INTERNAL GUIDE
B.RAVINDAR, (Ph.D)
Associate professor

HEAD OF DEPARTMENT
B.RAVINDAR, (Ph.D)
Associate professor

PRINCIPAL
Dr.CH.SRINIVAS

EXTERNAL EXAMINER

Principal
Vaageswari College of Engineering
KARIMNAGAR-505 001

ABSTRACT

The aim of this project is to design and implementation of ridger for ploughing and the leveler for the leveling of the land with in a single bike.

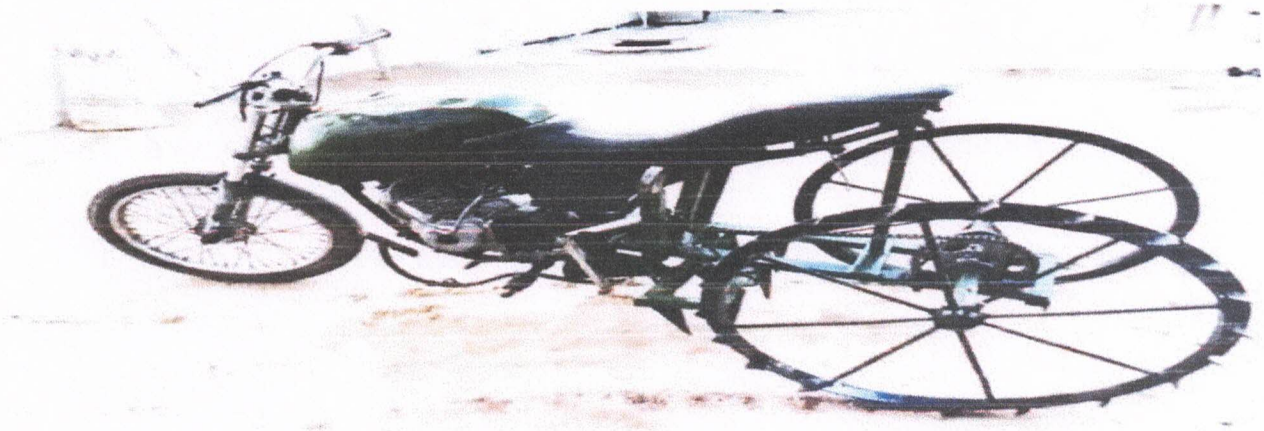
In olden days, small land holders and farmers use work bulls mostly for the land prepration, there use can be increased and made more economically by using them for farmer operations such as ploughing and leveling. manual method of farming causes backache to the farmers and cost price of imported machine as gone beyond the purchasing power of most of our farmers. In the field of agricultural vehicle, a concept is been developed to investigate if a small vehicle could be more efficient than the traditional large tractors and human forces, keeping the above ideology in mind, a bike with the following features is designed. This project work is focused on the simple design and multi purpose equipment which implements all farming operations with minimum cost as possible. The multi agro bike is able to plough and level the land. Its maintenance cost is low, we can easily operate and it is simple in construction. Multi agro bike is a new innovative and effective concept used for agriculture field and the working process is very easy and it is mostly used in agriculture process.

These whole system of the vehicle works with petrol and battery and the ploughing and leveling process is controlled by liver operations. In recent years the development of the vehicles in the agriculture has experienced increased interest and the advantages of the vehicles is low fuel consumption and fast input operations. The multi agro bike which works same as the tractor. the ridger with six furrows which are made up of cast iron are used for the ploughing of the land before the sowing of seeds and the metal sheet which is made up of cast iron is used to level the land for tilling the lard and make it ready for the seed sowing. The analysis was conducted at different operation conditions and the multi agro bike runs with normal speed of50-60kmph.And the ploughing operation speed is25-35kmph and the leveling operation speed is 30-40kmph.

Here ,with this bike along with ploughing the leveling operation can also be done just by adjusting the levers. the two operations are arranged on a single bike as the ridgers which are used for ploughing are arranged below the engine with good ground clearance by which the ploughing process can be done easily and the leveler which is arranged at

bike is low fuel consumption and fast multiple operations. reduction in cost and increase in productivity. if our project design were to be built and shipped to the farmers across the globe. it would be of vitual importance that it meets all the safety specifications that any national commercial product need.

KEY WORDS: Ridger with six furrows, leveling blade, cast iron wheels, petrol.



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8.2 APPLICATIONS:

This bike has wide many applications

- this can be used to plough the soil in agriculture land
- this can be used to level the soil
- it can used in pity gardens
- this bike specially designed for farmers
- domestic and home purpose can be used

CONCLUSION

After the manufacturing and trail on the "MULTI AGRO BIKE" conclusion made are as follows:

- Based on the overall performance of the machine we can definitely say that the project will satisfy the need of small scale farmer, because they are not able to purchase costly agricultural equipment.
- The machine required less man power and less time compared to traditional methods, so if we manufacture it on a large scale its cost gets significantly reduce and we hope this will satisfy the partial thrust of Indian agriculture.
- Our overall aim is to provide facilities to the farmer by low cost auto mobile by which a farmer can work easily.
- Our project is a new innovative and effective concept used for agriculture field.

So in this way we can overcome the labor problem that is the need of today`s farming in India.

FUTURE SCOPE

- By arranging a small motor we can suck the water from the wells which can be stored and it can used furtherlly.
- By arranging the pesticides solution box , we can spray the pesticides to the field.
- By arranging the blades we can cut the paddy from the fields and vegetables.
- From more efficiency and speed we can increase the cubic centimeter of the engine.

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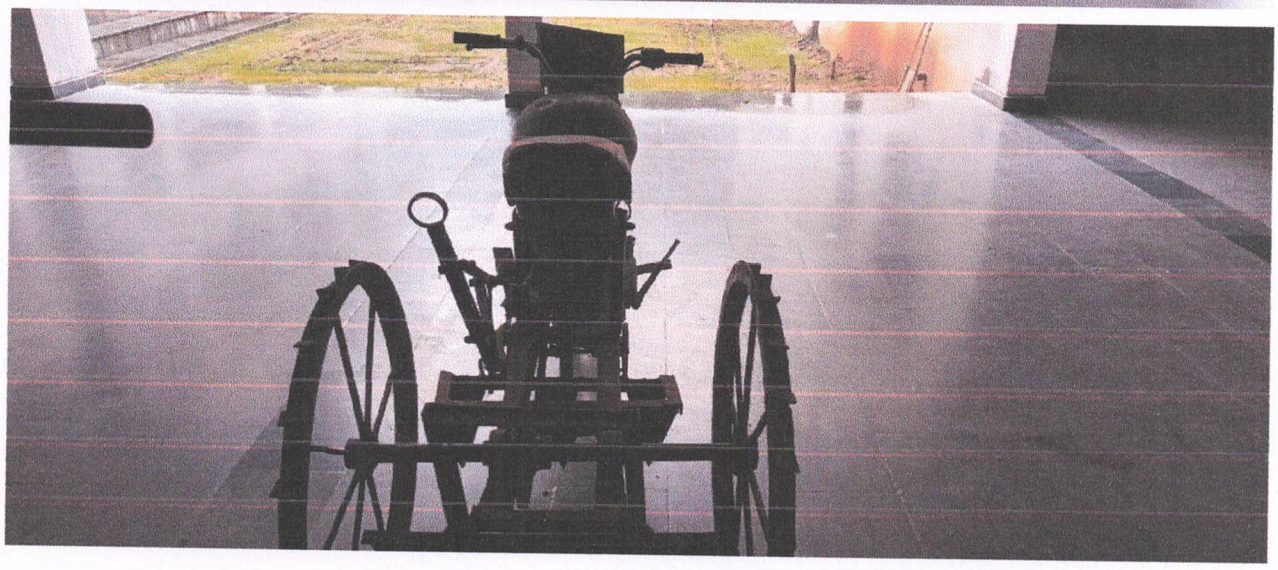
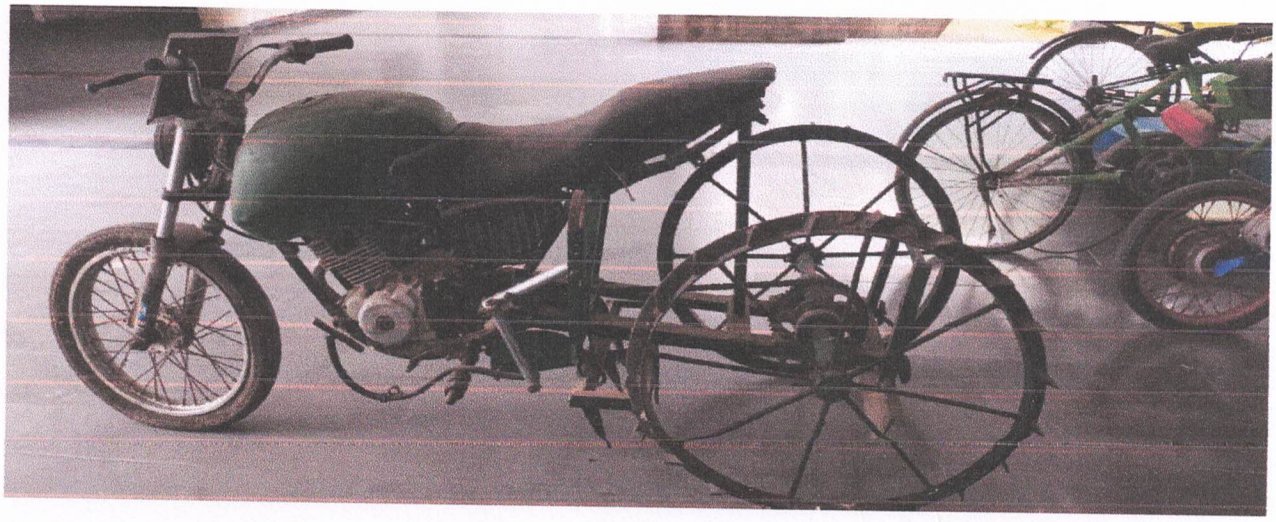




PORTABLE ELECTRIC POWER TILLER MACHINE

This, "Portable Electric Power Tilling Machine", is the low-cost portable battery charged electric power tiller machine is a one-stop modern solution to enhance the conventional agriculture methods of farming, as it reduces the human effort, at a very negligible price using motorized tilling mechanism. The electric power tiller helps reduce the time and cost involved in tilling using a smart portable design thereby increasing the productivity and efficiency in agriculture.

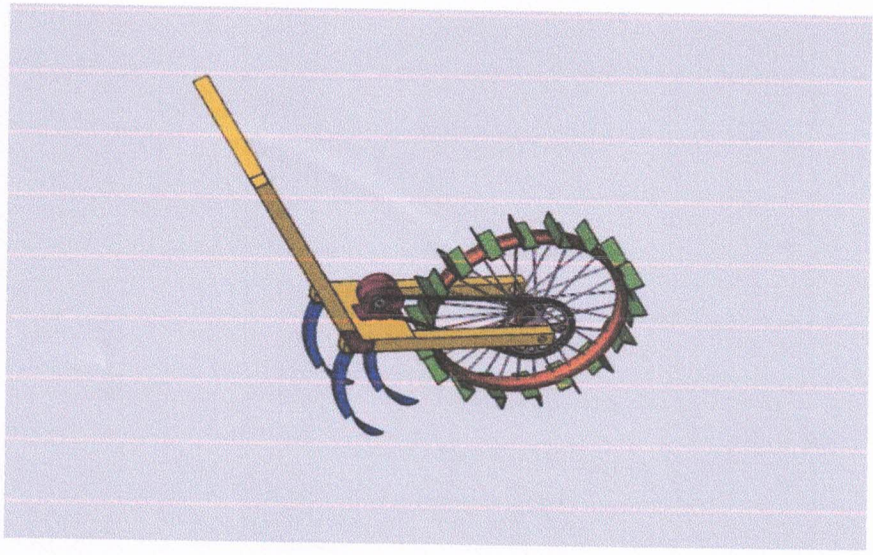
Machine while tilling

Advantages of the Portable Electric Power Tiller are:

- Automatic Operation
- Battery Powered No Fuel Needed
- Portable and easy to operate
- Cost-effective as compared to a tractor
- Replacement for animal power & human effort.
- Reduces tilling time

The machine makes use of a wheel with welded angles to provide efficient gripping on soil. The wheel design is developed to provide a firm grip on soil strong enough to drag the cultivator forks while tilling process. A switch provided on the handle is used to switch on off the machine. The machine is driven by an electric motor which uses a sprocket chain arrangement to drive the pulling wheel.

A battery is used to power the motor with a force capable of pulling the forks through soil. The three cultivator forks allow for easy and narrow tilling exactly as needed for farming. The portable lightweight design makes it easy to control the direction of machine while in use. Also it can be easily carried around in vehicles or by hand for transporting the machine. Thus, the electric power tiller provides a smart innovative fuel free mechanism to farm and garden tilling.



CALCULATIONS

Motar power = 250 W= 0.25 KW

Motor Speed = 300 rpm

250 W = 0.335256 Hp

1. Machine Torque =9.5488 X Power /Speed

= 9.5488X 0.25/300

Torque = 7.96 N/m

2. Power (KW) = Torque X Speed /9.5488

= 7.96 X 300/9.5488

= 0.25 KW

3. Efficiency (η) = 0.745 X Hp X load /Pi

= 0.745 X 0.335256 X 90 /0.25

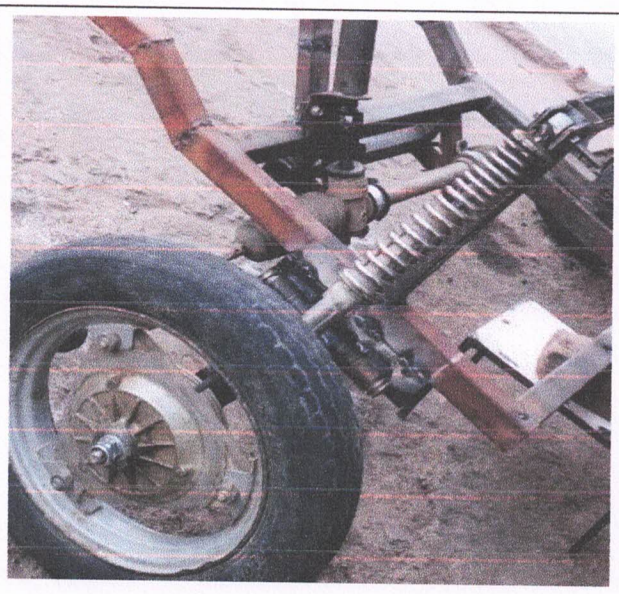
= 89.91%

HYDRO GO-CART WITH 150CC ENGINE

K. Srikanth (13S41A0330), B. Sainath (14S41A0304), G. Ranjith (14S41A0311), S. Mahesh (14S41A0337) and S. Shashi Kumar (14S41A0339) students of Mechanical Engineering were designed **HYDRO GO-CART WITH 150CC ENGINE.** It is completely different with other bikes. This bike decreases the fuel consumption with the help of hydrogen gas and fuel. It is a eco-friend bike. The engine life also increases with consumption of hydrogen.

Hydro Turbo Go Kart

Hydrogen is an energy carries that can transform present fossil-fuel dependent economy into a hydrogen economy, which can provide and emission free transportation fuel.



Failure of shock absorber

success of shock absorber

Features of the HYDRO GO CART

1. Power and torque loss occurs at low speed hydrogen operation. At high speed hydrogen gives better performance as compare to gasoline operation.
2. Similarly thermal efficiency and brake mean effective pressure of hydrogen is more at higher speed.
3. No emission of hydrogen fuelled engine is about 9-10 minutes lower than gasoline fuelled engine.
4. Emission of CO, HC, and CO_2 of hydrogen is very less so hydrogen is eco friendly
5. Short time of combustion produces lower exhaust gas temperature for hydrogen.
6. Hydrogen is a very good applicant as an engine fuel. Appropriate changes will be taken place in the combustion.

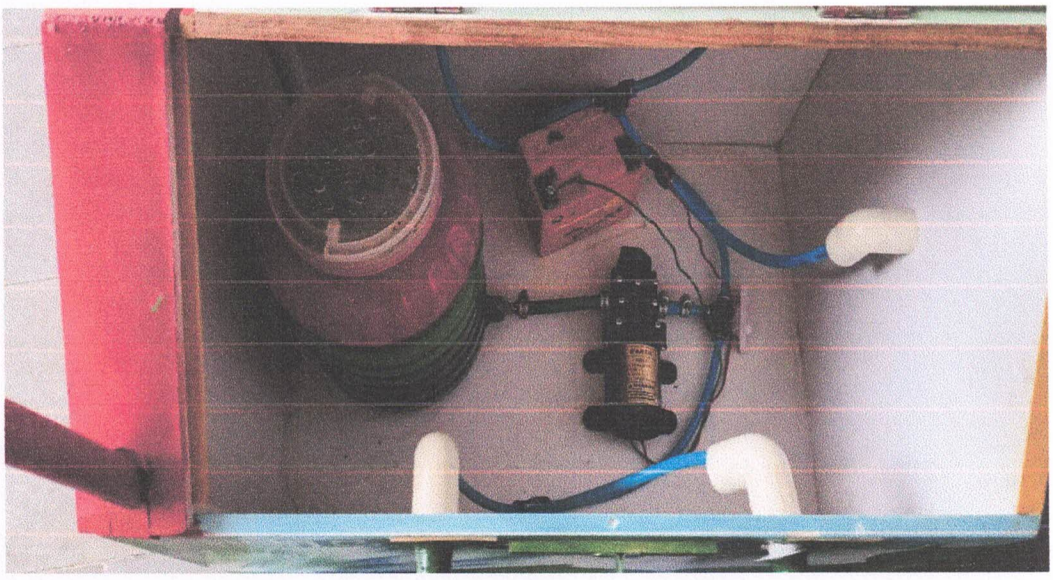
MULTI USE FARM MACHINE

Final students Mr. Syed Shahbazuddin (16S41A0323), Mr. Vizarath Ali Noman (17S41A0330), Abdul Hakam (18S41A0301) and Syed Asim Ansar (19S45A0324) designed Multi Use Farm Machine under the guidance of Dr. Ch. Srinivas. This machine can be used for the purpose of agriculture use, house hold use as well as washing of auto mobile vehicles. This multi use farm machine is work with the help of a power source i.e. battery which is connected with PU pipes by the power of a battery. The water is sucked from the container and with the help of mist nozzles. The water is sprayed in the agriculture from four sides.

This machine also contains the spray nozzle in the front of the machine. These spray nozzle will help to use in house hold purpose and washing of car or two wheeler. The spray is connected with the help of PU pipes as similar to fertilizer by the application of mechanical force.

This machine can be used in multiple ways by fixing additional parts to it.

In this machine electrical energy is converting into mechanical energy by the use of switch and battery.



Advantages of Multi Use Farm Machine

1. Less Weight
2. Made with WPCI (Whenyl Polymer Composite) which is water proof.
3. Strength of WPC is high
4. Easily moveble
5. Spraying of fertilizer by using a motor will give more efficiency
6. Extension of pipes can be done so that fertilizing space can be increased
7. Spray nozzle is provided for the automotive body wash.

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AUTOMATIC STREET LIGHT CONTROL

CONCEPT: The main idea behind this project is to save maximum electrical power which is wasted by street lights. As we know very well, that the street lights are switched ON in the evening before it is dark and switched OFF late in the morning which results in large amount of power wastage. To reduce power wastage and save natural resources, we came up with this model.
This project deals with "Development of an embedded system for automatic street light controlling" using micro controller and Light sensor named as light dependent resistor (LDR).

In our daily life we are observing street lights ON in day time also or may not be turned ON at accurate time. This type of conditions is more affected to the electricity board.

This project provides a solution to avoid this condition. The project presented here to on/off the street lights automatically based on the availability and unavailability of natural light without making use of manual efforts.

Here we are mainly using the sensor to detect the light LDR (light dependent Resistor). The characteristics of the LDR are the resistance is very high when it is in dark and resistance is low when it is in light.

The Microcontroller was used to control the whole system, it monitors the sensor out put and according to the sensor condition the street lights operated.

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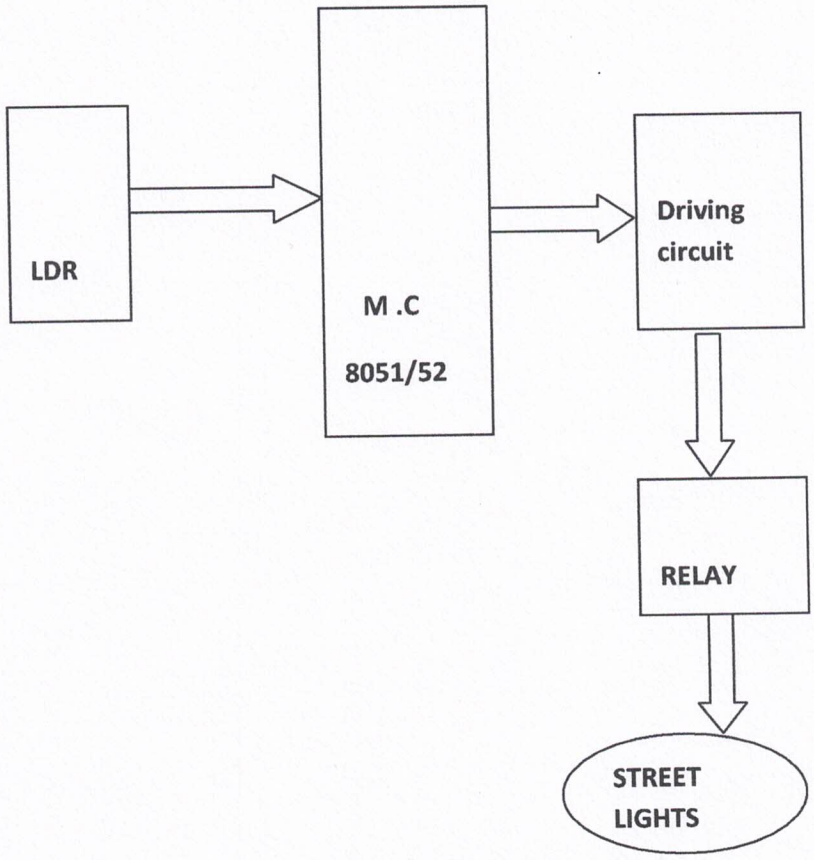
Block Diagram of Automatic Street Light Control



HARDWARE DETAILS:

1. CONTROL UNIT
2. REGULATED POWER SUPPLY
3. LDR (LIGHT DEPENDENT RESISTOR) SENSORS
4. DRIVING CIRCUIT
5. STREET LIGHTS (LEDS)

ADV ANTAGES:

1. This Project saves large amount of electrical power.

2. Reduces human efforts

3. Low cost implementation

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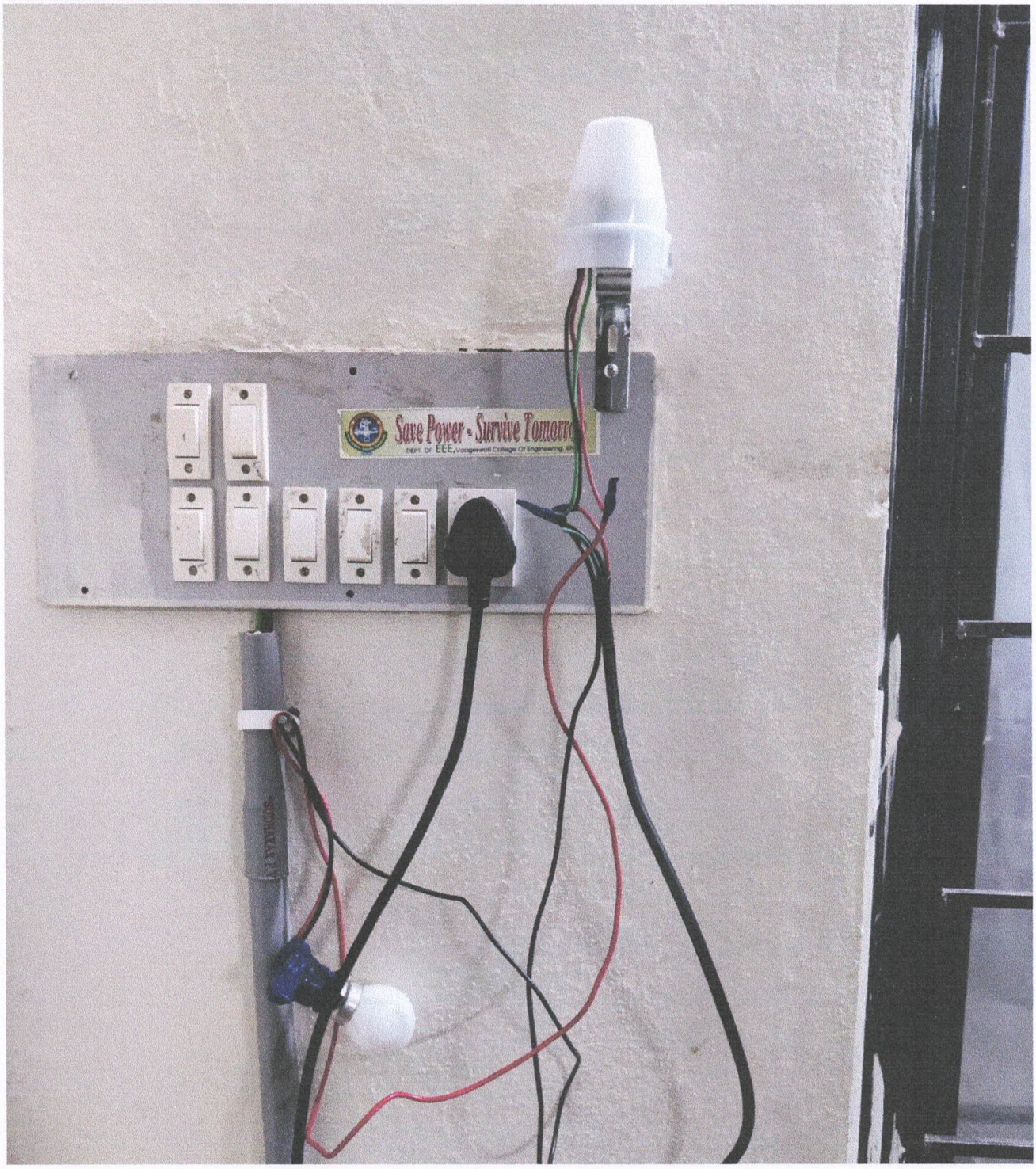

Beside L.M.D. Police Station, KARIMNAGAR - 505 527, Telangana State. Ph : 0878-2004242
E-mail: s4.principal@gmail.com, Website: www.vgsek.ac.in

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Vaageswari College of Engineering
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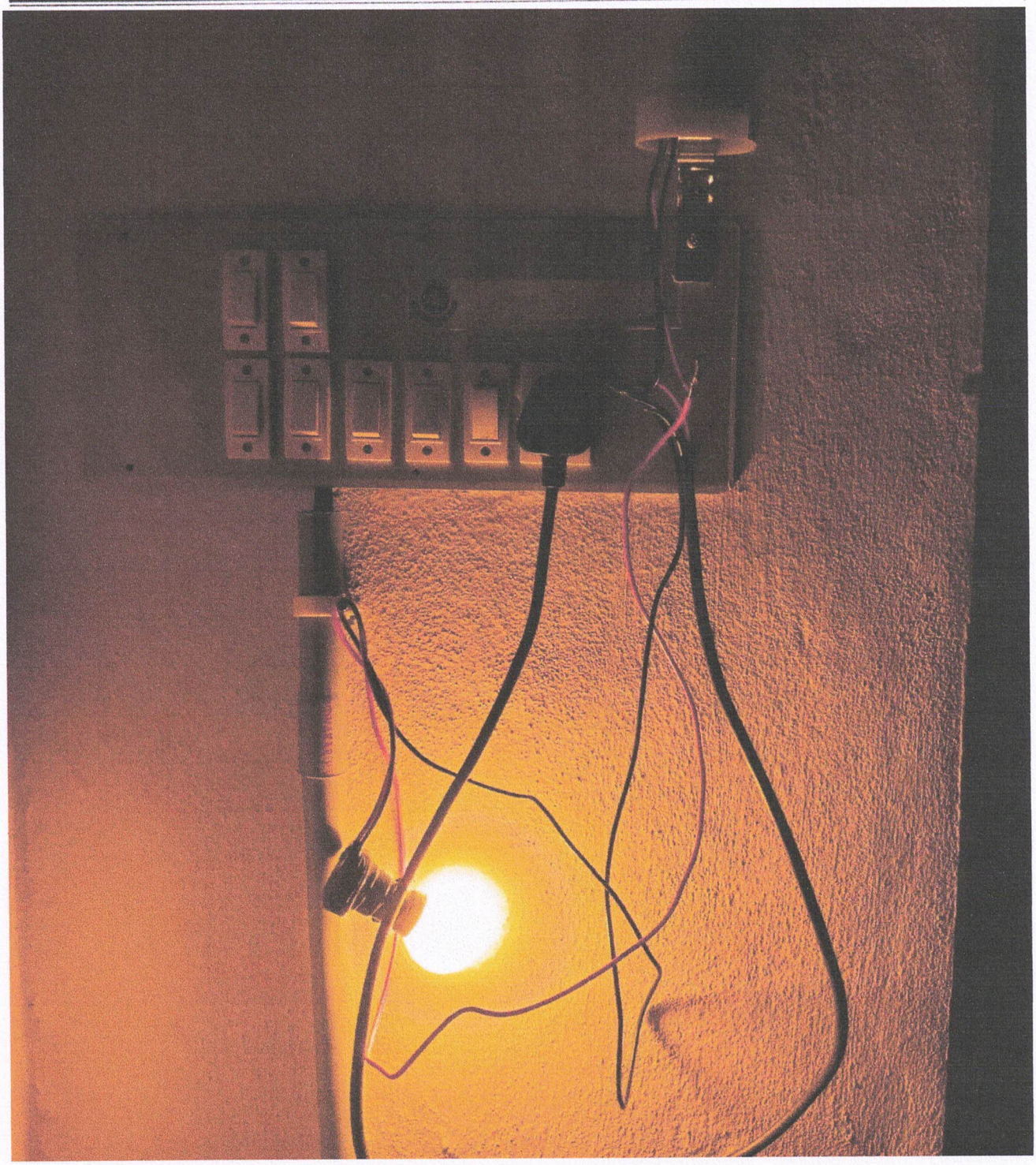

Motion Based Automatic Room Light Control System

Abstract:

Conservation of energy is a vital topic within the current analysis. Lighting system places its very important role in homes, offices, and industrial sectors, urban and rural areas. For extended potency and to cut back the power consumption, several ways are developed. They have already installed lighting of various methodology that are out-of-date and energy inefficient. For sensible lighting and to cut back the energy storage demand, light emitting diodes (LED) and hybrid installation will be used. Here, this project offers a review on the obtainable smart lighting systems and it additionally offers the thought to develop low price, adaptable, simple to put in, wireless sensing element based on sensible lighting system that mechanically modifies the intensity of light for energy saving that satisfies the user.

Introduction:

Nowadays, energy consumption is large in residential and business areas. it's due to the inefficient usage of electrical loads like heating systems, lighting systems etc. Among these, the lighting system is one in all the biggest energy overwhelming units of any building & structure. it's thus crucial to use the good lighting system by automatically switch on/off or dim the lights when required without troubling the conventional operation of the working atmosphere. Nowadays, energy consumption is large in residential and business areas. it's due to the inefficient usage of electrical loads like heating systems, lighting systems etc. Among these, the lighting system is one in all the biggest energy overwhelming units of any building & structure. it's thus crucial to use the good and efficient lighting system by automatically switch on/off or dim the lights when required without troubling the conventional operation of the working atmosphere. Different fields of lighting are business, residential, industrial and outside lighting. Each of the sector has its own desires and necessities of lighting using completely different sensors. Residential sector wants to low power therefore low price easy solution will be used by using ambient sensors. Industrial lighting in retailers and offices uses bit high power, so they will create use of passive infrared sensors or supersonic sensors to cover

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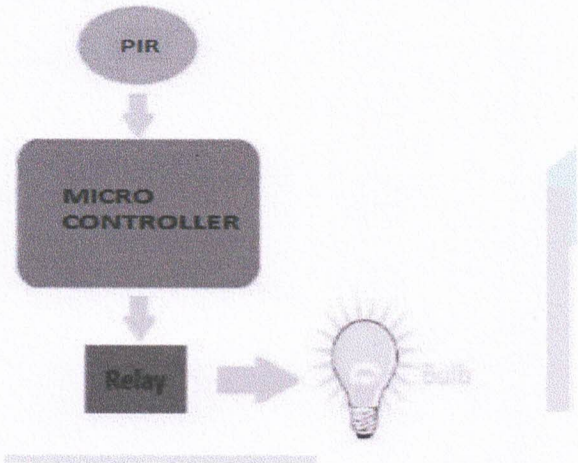
massive areas. outside and Industrial sectors will create use of Pyroelectric Infrared(PIR), light and motion sensors so as to manage the light in a very safety and value effective manner.

Block Diagram



Applications

- Room Lights
- Garage Lights
- Bathroom Lights
- Hand Dryers
- Toilet Flushers
- Security Lights

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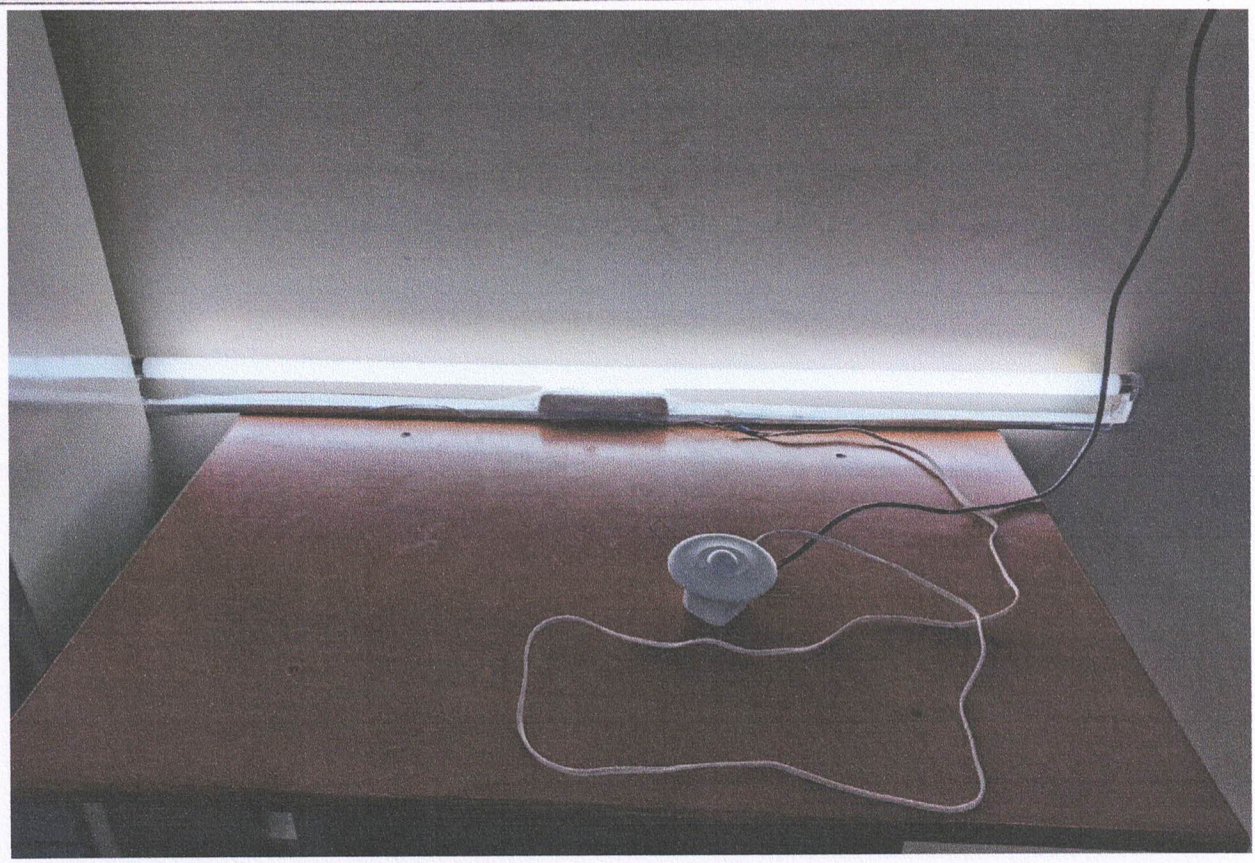

Principal
Vaageswari College of Engineering
KARIMNAGAR-505 527.

Beside L.M.D. Police Station, KARIMNAGAR - 505 527, Telangana State. Ph : 0878-2004242
E-mail: s4.principal@gmail.com, Website: www.vgsek.ac.in