

Design and Development of Low Cost Automation in Polyhouse.

Name of Project Students:

1. Tousif N. Bargir
2. Mohammadtahir S. Shaikh
3. Sadik S. Patel
4. Akshay H. Satpute
5. Sanket A. Suryawanshi

ABSTRACT

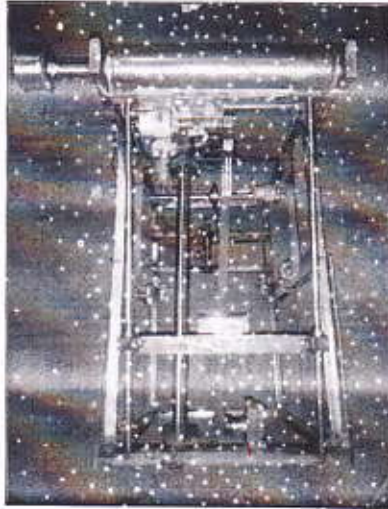
In India agricultural management system is not enough to solve the entire agricultural problem which causes various problems to the farmers. A poly house is a house in which a simple polythene sheet is used to cover the house which is also called as greenhouse. The main objective behind this project is to design a very low cost automation poly house which can be used for rain protection and light control, temperature, humidity and spiral path for spraying the pesticides.

India is primarily a agriculture country. In India today varieties of crops are cultivated in different parts as per the climatic conditions, such as crops which required low climate are grown in the top part of the country ,while which required hot climate are grown in the west part of the country. Hence to provide proper climatic condition to the crops a new type of farming called as poly house farming has been developed.

CONCLUSION

Traditional farming is popular in India but Polyhouse farming has been introduced to replace this traditional farming. It helps to provides better crop within a short period of time with less time and with low labour cost. It reduces reliance on rainfall & apex usage of land & water resources. Polyhouse farming helps the farmers for their living by growing multiple crops. Polyhouse cultivation provides proper irrigation system and reduces the wastage of water. The main advantage is that the system's action can be controlled according to different atmospheric conditions for various types of crops.

PROJECT SETUP



Guide

S.N. Hublikar

Prof. S.N. Hublikar

H.O.D

S.N. Hublikar

Prof. S.N. Hublikar

Director

A.C. Bhagali

Dr. A.C. Bhagali

"Design and Fabrication of gutter cleaner for Closed gutter"

Name of Project Students:

1. Avdhut K Bele
2. Piyush S Kulkarni
3. Rohit R Admuthe
4. Shivaji L Kumbhar
5. Sagar S Javir

ABSTRACT

Cleaning the environment reduces pollution, protects unique ecosystems, prevents the extinction of endangered species and conserves resources, such as water, land and air. A clean environment ensures the protection of biodiversity and ecosystems upon which human life and all other life on Earth depends. Water is very important to human life and its cleanliness is effect on performance and health of world. The waste generation rates in India are higher and pollution control is needed and the methods used for pollution control should be eco-friendly.

This project aim is to Design and Fabrication of gutter cleaner for closed gutter

CONCLUSION

This project will help to simplify the method of cleaning for municipality gutter. Also it will save stress and strain of labor which is required for handling of machinery during the cleaning of gutter. It will increase the cleaning capacity and also confidence among the worker.

Guide

Prof. O.A.Patil.

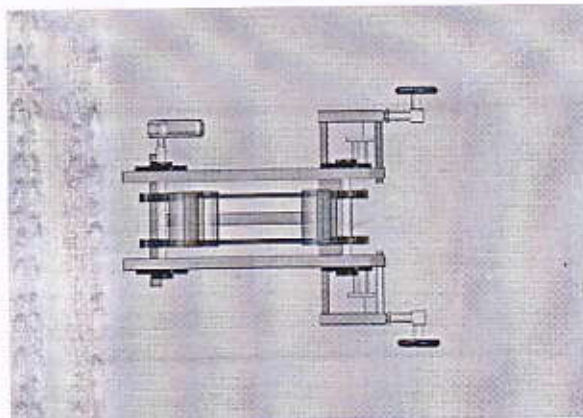

H.O.D

Prof. S.N.Hublikar


Director

Dr.A.C.Bhagali

PROJECT SETUP



GLIMPSE OF PROJECT

914

TITLE OF PROJECT: " FRICTION LESS ENERGY GENERATION USING WHEEL "

NAME OF PROJECT STUDENTS:

- | | |
|------------------------------|--------|
| 1. SUMIT KUBER CHOUGULE | (4110) |
| 2. ROHIT SURESH KAKADE | (4111) |
| 3. AJIT ARJUN RAJMANE | (4116) |
| 4. SHREEPAD P. MAHINDRAKAR | (4136) |
| 5. ACHYUT SUDHINDRA KULKARNI | (4147) |

ABSTRACT

This is a mechanical device which uses the wheel to store energy in the form of inertia. In this system we applied an additional energy source to start the main motor like electricity. In this system main motor is used to drive a series of pulley and belt arrangement which forms a gear train arrangement which produce a twice/ thrice speed at the shaft of generator. The significant thing about the system is that the electricity generated at the output of the shaft is more than that of input. The inertia of wheel can be increased by increasing the radius of wheel and weight of wheel. It also increase if the wheel weight is concentrated as far out toward the rim of the wheel as is possible. Firstly, the requirement for an effective system needs to be a suitable wheel with a large diameter and vast majority of the weight needs to be close to rim. The construction needs to be robust and secure as ideally. The rate of rotation will be as high as possible as the weight on the wheel is concentrated outward of the rim which needs to be exactly at right angles to the axle on which it rotates and exactly centered on the axle. The main motor is at low speed, low voltage input motor, the generator is high speed, and high voltage output generator. Therefore, when we apply an extra energy to the main motor it starts running, which causes to rotate the wheel.

CONCLUSION

We have successfully designed the project and implemented on frame, the generated power is utilized to charge the battery of electrical vehicle; we also understand the concept of electromagnetism and how to generate power by just placing the magnet and coil of equal quantity on different disks without making any contact.


GUIDE

Mr. U. C. RAJMANE


HEAD DEPT.

Mrs. S. M. HUBLIKAR


DIRECTOR

Dr. A. C. BHAGALI

GLIMPSE OF PROJECT

TITLE OF PROJECT: " ANALYSIS OF TUBE IN TUBE TYPE HEAT EXCHANGER WITH SPRING INSERTS "

NAME OF PROJECT STUDENTS:

1. SURAJ PRAKASH CHOUGULE (4108)
2. SAMMED SURGONDA PATIL (4113)
3. TAUFIK SALIM ARAB (4122)
4. PRATHMESH ADGONDA PATIL (4131)
5. SAMMED SUKUMAR MADBHAVE (4133)

ABSTRACT

A heat exchanger is a device facilitating the convective heat transfer of fluid inside the tubes and is extensively used in many applications, such as thermal power plants, chemical industries and radiators for automobiles. To dates, attempts have been made to reduce the size and cost of heat exchangers. In general, heat transfer augmentations can be divided in two types. One is the passive method without stimulation by external power such as rough surfaces, extended surfaces and swirl flow device helical wire coils. The other is active method, which requires extra external power sources, for example, fluid vibration, fluid injection and suction and use of electrostatic fields. Turbulators are inserted into the flow to provide redevelopment of the boundary layer, to increase the heat transfer surface area and to cause enhancement of heat transfer by increasing the turbulence or rapid mixing.

Turbulators are inserted into the flow to provide redevelopment of the boundary layer, to increase the heat transfer surface area and to cause enhancement of heat transfer by increasing the turbulence or rapid mixing. Therefore, a more compact and economic heat exchanger with low lower operation costs can be obtained. Till date investigation have been carried out for only one coil, which is stated in the inner tube of the exchanger and its outer surface mates to inner surface of the tube.

CONCLUSION

We found that the heat transfer rate is enhanced by using different types of helical wires construction in the inner tube of a double pipe heat exchanger. However, the friction factor of the tube with the helical wires insert also increases. From result tables and calculation it is also found that Nusselt number for steel alloy helical wires with pitch 15 mm 20% increase as compared to plain tube heat exchanger.

GUIDE

Mr. A. A. KHANDAGALE

HEAD DEPT.

Mrs. S. M. HUBLIKAR

DIRECTOR

Dr. A. C. BHAGALI

Title of the project : " Design and fabrication of thermoelectric refrigerator for liquid cooling using automatic temperature microcontroller.

Name of project students : 1) Danole Sandip Adgonda. (4127)
 2) Todkar Hrishikesh Ashok. (4109)
 3) Pujari Sushil Shrikant. (4148)
 4) Patil Pranav Ravsaheb. (4152)
 5) Patil Omkar Ramgonda. (4137)

Abstract

Refrigeration is defined as science of reducing temperature of object and maintains the temperature below the atmosphere. Conventional refrigeration system includes Vapour compression; Vapour absorption and Air refrigeration have disadvantages of its own. To overcome these disadvantages new refrigeration technology is needed. In 1834, Jean Peltier while investigating Seebeck effect, found that direct current can produce refrigeration effect when it is passed through pair of two dissimilar metals was further known as Peltier effect and then thermoelectric refrigeration started evolving and till now it has covered wide range of applications. Thermoelectric refrigeration systems are compact, reliable, noiseless, and more flexible and environment friendly. Due low COP and requirement of DC supply it is restricted to small capacity system.

According to Thermoelectric refrigeration setup is fabricated and tested for load and no load condition. For no load condition this system took 4 minute to reduce the temperature by 11°C . For load condition it took 21 minutes to reduce the temperature by 8°C . These results are produced on fabricated thermoelectric refrigeration system with 4 Peltier module

Conclusion

1. Thermoelectric refrigerator are greatly needed particularly for developing countries, where long life low maintenance and clean environment are needed.
2. Commercial factors like decrease in production cost and significant opening of consumer markets have helped it in a big way and use of thermoelectric devices is increasing day by day.
3. Thermoelectric devices are more compact, free of noises and vibrations. It provides high quality temperature control and requires less maintenance. These significant facts led to the development of original and interesting thermoelectric refrigeration device.


Guide.

Prof. S.G.Mane.


HOB

Prof. S.N.Hublikar


Director

Dr. A.C.Bhagali

TITLE OF PROJECT: "Design & Development of Combined Brake & Accelerator Pedal Mechanism For Four Wheeler. "

NAME OF PROJECT STUDENTS:

1. MANGESH S. DESHMUKHA	(4125)
2. SHUBHAM T. MANE	(4143)
3. NITIN N. METKARI	(4104)
4. VISHAL M. MALI	(4146)
5. BALAJI D. SANGOLKAR	(4102)

ABSTRACT

Design, Analysis and Testing of single pedal brake accelerator mechanism to reduce pedal shifting time and to reduce the possibility of misapplication of pedal or bad hit of pedal.

The major objectives of single pedal brake-accelerator mechanism are

1. Design of single structure which consist of two systems i.e. braking system and acceleration system..
2. Combining the braking pedal and accelerator pedal mechanism on single pivot.
3. Arranging the motions of two different pedals so that can be handled by same foot.
4. Motions of two pedal should not interfere with each other.
5. Working of two systems should be separate and should not interfere with each other.

CONCLUSION

We can conclude that this new mechanism results in avoiding interference of braking during acceleration and vice versa. Moreover, it is advantageous our conventional pedals. This combined pedal mechanism thus provides a driving control which permits the quick and smooth transitions from acceleration to braking without needing to transfer the foot from one pedal to another.

GUIDE

Mr. V. R. WALE

HEAD DEPT.

Mrs. S. N. HUBLIKAR

DIRECTOR

Dr. A. C. BHAGALI

GLIMPSE OF PROJECT

TITLE OF PROJECT: "DESIGN OF SMART HAND BRAKE SYSTEM "

NAME OF PROJECT STUDENTS:

- | | |
|------------------------------|--------|
| 1. OMKAR CHARUDATTA GHORPADE | (4045) |
| 2. RUSHIKESH BALASO PATIL | (4051) |
| 3. SUJIT BABAN CHOUGULE | (4021) |
| 4. SHUBHAM RAJENDRA PATIL | (4008) |
| 5. PRATIK UDAYSING RAJPUT | (4065) |

ABSTRACT

In an automobile, hand brake used to make the vehicle stationary on road during parking or emergency. Generally, hand brake mechanism can be operated by the driver on the other end. Hand brake is one of the most important components in vehicles. As we know human life are gets busier and more complicated due to their work and development. So, in today's advanced technology maximum inventions or research is done to reduce human effort and for providing comfortable life to them. The rise in number of loss of life in accidents is due to driver's carelessness to wear seat belt though it is strictly forced by law. The aim of our project is to make seat belt wearing compulsory for vehicle momentum. The change to be done ensures that the driver wears seat belt in driving. Here the seat belt of the car initiates the hand brake (parking brake) through system. The main benefit of this system is that traveller/driver safety, if we don't use seatbelt the vehicle handbrake dose not removes for safety. This system will be employed in car to ensure travellers/driver safety

CONCLUSION

Thus the use of conventional hand brake system can be eliminated using this system and the error occurring due to operator can be eliminated completely. It can clearly be seen that this system is completely fool proof and we may use this system in automobiles even in the lower price range as this system is not extremely expensive.


GUIDE

Mr. A.R.GORE


H.O.D

Mrs. S.N.HUBLIKAR


DIRECTOR

Mr. A.C.BAGLI



920

Shri Ambabai Talim Santha's
SANJAY BHOKARE GROUP OF INSTITUTES,
Faculty of Engineering, Miraj.
Department Of Mechanical Engineering.
ACADEMIC YEAR - 2018-19

GLIMPSE OF PROJECT

TITLE OF PROJECT: Design And Development of Multicultivator

Name of Project Students:

- | | |
|---------------------------|------|
| 1. Sunil Shivaji Hingase. | (47) |
| 2. Vijay Sunil Mane. | (07) |
| 3. Omkar Bajirao Gaikwad. | (21) |
| 4. Santosh Tukaram Misal. | (26) |
| 5. Onkar Ravsaheb Hulwan. | (56) |

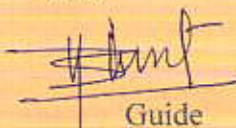
Guide: Mr.Y. B. SHIRSET

ABSTRACT

India is an agriculture based country in which, 70% of people depends on the outcome of farming. But if we observe that with increase in population the farm gets distributed among the family and because of this, farmer in India held averagely only two acre farm. Also economically, farmers are very poor due to which they are unable to purchase tractors and other costly equipments hence they use traditional method of farming. Basically, many farmers in India also use bullocks, horses and he-buffalo for farming operation. This will not satisfy need of energy requirement of the farming as compared to other countries in the world. So We are thinking that human and animal efforts can be replaced by some advance mechanization which will be suitable for small scale farmer from economical and effort point of view.

CONCLUSION:

This work is about integrating of mechanical system to the agriculture fields for the agriculture operations. Many operations including ploughing, weed removal, ground softening etc can be performed. Different agriculture tools can be adopted by applying different mechanisms to the machine. Hence it's a multi operational device that can be effectively used in fields.



Guide

Project Coordinator



Head of Department



Director

Mr.Y. B. SHIRSET

Mr. S.S.MANE

MRS. S.N. HUBLIKAR

Dr. A.C. Bhagali

Title of the project:

"Liquid level indication by using PLC and SCADA."

Name of Project Students:

1. Jadhav Hrishikesh Kumar.	4003
2. Kulkarni Rohan Kishor.	4056
3. Joshi Rugved Rajendra.	4058
4. Gavali Onkar Anil.	4129
5. Bhosale Akash Gajanan.	4135

ABSTRACT

This project describes about problems occurred to human during various conditions while conducting supervision of water tanks. In water tanks various processes need to be controlled and monitored regularly thus it becomes tedious job to handle the plant manually. In our project, we have implemented the automation techniques by using PLC and SCADA. PLC automates the sequence of operation to avoid human interference so accuracy is improved and speed of process increases. It shows real time model of water tanks. Using PLC the status of the parameters can not only be continuously monitored but also the operations of the required parameters can be controlled. SCADA (Supervisory Control & Data Acquisition) which is an automation remote monitoring and control system, which can be applicable in any automation operation that requires supervisory control and real time data acquisition.

CONCLUSION

The prototype of our project designed in such a way that it should have optimized number of parts with easy assembling and disassembling, easy to manufacture, cost effectiveness. The process will be developed in such a way that one can understand it without having any technical knowledge about PLC and SCADA. Design and development through this project will deliver and provide a process control system that will set a new standard of performance in available market area. This will help to create a better everyday life for the many people.



Guide
Prof. A.G. Koparde.



H.O.D.
Prof. S. N. Hublikar.



Director
Dr. A.C. Bhagali.

GLIMPSE OF PROJECT

TITLE OF PROJECT: "Jumping Bicycle"

NAME OF PROJECT STUDENTS:

- | | |
|----------------------------|--------|
| 1. RAHUL RANOJI JADHAV | (4013) |
| 2. SHIVTEJ ULHAS KASHID | (4024) |
| 3. SACHIN SUNIL RASALE | (4027) |
| 4. SHUBHAM RAJENDRA DANOLE | (4030) |
| 5. ROHAN RAJARAM KATKAR | (4033) |

ABSTRACT

Today's world is going to technological, so there is need of exercise in days to day life. People have no time for exercise, so we are going to design and develop a Jumping Bike. The main motive of our project is human health. The bike will be run by jumping force exerted by human body. Rate Pollution and cost of petrol is also high in India. This problems also be eliminated by our project. And also people will enjoy off-road biking.

In this project we are converting linear motion into rotary motion by using kinematic links and pairs. The main components of our project is vehicle chassis, shock absorber, spring, chain, sprocket, pulley and bearings.

There is no time for everyone for exercise so we designing a bike which will run by jumping force. The bike will run by only jumping force which will extorted by human. We can use this bike in day to day life. This is totallly pollution free bike and also petrol free.

CONCLUSION

In this project a suitable chassis is designed for single person. The stability analysis of three wheeler jumping bike is carried out. The Fabrication of bike has been done by using different technique.


GUIDE
Mr. A.G.KOPARDE


HEAD DEPT.
Mrs. S. M. HUBLIKAR


DIRECTOR
Dr. A. C. BHAGALI

GLIMPSE OF PROJECT

TITLE OF PROJECT: "Design & Fabrication of Chakali Making Machine "

NAME OF PROJECT STUDENTS:

- | | |
|------------------------------|--------|
| 1. NILAM SHARAD KAMBLE | (4117) |
| 2. AKSHAY SANJAY GAVALI | (4118) |
| 3. SHRIDHAR SHASHIKANT DHOLE | (4104) |
| 4. ANIKET RAMESH SHINDE | (4153) |

ABSTRACT

This machine is related to food industry. It helps to reduce the labour cost as well as time. It also reduces the work load. We are trying to manufacture a machine which will give high speed with more accurate shape of chakali. This machine has high efficiency also the production rate as compare to manual and conventional process.

CONCLUSION

This kind of machine is not available in sangli and kolhapur area and their may be good requirement of such kind of machine for sweet manufactures near by area. This machine accordable can save lot of labour and worker also its use can be extend by adding some accessories to this machine.


GUIDE

Mr.S.G.MANE


HEAD DEPT.

Mrs. S. M. HUBLIKAR


DIRECTOR

Dr. A.C. BHAGALI

TITLE OF PROJECT

"Study Of Mechanical Properties Of AMMCs Produced By Stir Casting Process."

Name of Students:

- | | |
|--------------------------------|--------|
| 1. Pavan Purushottam Kulkarni. | (4004) |
| 2. Vijay Arun Phadtare. | (4005) |
| 3. Rahul Arvind Mokashi. | (4017) |
| 4. Yogesh Shivaji Magdum. | (4019) |
| 5. Atul Vasantao Patil. | (4050) |

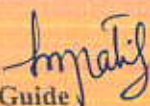
ABSTRACT

Aluminium is the matrix metal having properties like light weight, high strength and ease of machinability. Aluminium which has better wear resistance, high strength and reinforcement which has excellent hardness and fracture toughness are added. Aluminium Metal Matrix Composites are one of the advanced engineering materials that have been widely used in aerospace and automotive industries due to their excellent mechanical properties. In Aluminium Metal Matrix Composites aluminium matrix is strengthened by reinforcing it with hard ceramic particles like SiC, Al₂O₃ and B₄C etc.

Wetting between the dispersoid and the matrix alloy is the foremost requirement during the preparation of Metal Matrix Composites (MMCs) especially with the casting/liquid metal processing technique. The basic principle involved in improving wetting fall under three categories: 1. Increase in the surface energies of the solid, 2. Decrease in the surface tension of the liquid matrix alloy, 3. Decreasing the solid /liquid interfacial energy at the dispersoid Matrix interface. Presence of magnesium fulfill all the above three requirements. The important role played by the magnesium is the scavenging of oxygen from the dispersoid surface, thus thinning the gas layer and improving wetting.

CONCLUSION

From all the result obtained it has been concluded that all the mechanical properties go on increasing with the addition of B₄C and Mg content. As compared to previous research work all the properties obtained are better than previous one. Strength of specimen start reducing after the saturation point achieves hence reinforcement should be added up to this saturation point.


Guide

Prof. S.M. Patil.


H.O.D

Prof. S.N. Hublikar


Director

Dr. A.C. Bhagali

TITLE OF PROJECT**"Study Of Tribological Properties Of AMMCs Produced By Stir Casting Process."****Name of Students:**

- | | |
|-------------------------------|--------|
| 1. Anil Vidyadhar Kumbhar. | (4009) |
| 2. Akshay Chakshupal Kamble. | (4032) |
| 3. Laxman Ishwar Dhargude. | (4037) |
| 4. Shubham Tanaji Patil. | (4053) |
| 5. Abhishek Suryakant Kagale. | (4059) |

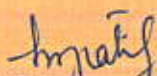
ABSTRACT

Aluminium is the matrix metal having properties like light weight, high strength and ease of machinability. Aluminium which has better wear resistance, high strength and reinforcement which has excellent hardness and fracture toughness are added. Aluminium Metal Matrix Composites are one of the advanced engineering materials that have been widely used in aerospace and automotive industries due to their excellent mechanical properties. In Aluminium Metal Matrix Composites aluminium matrix is strengthened by reinforcing it with hard ceramic particles like SiC, Al_2O_3 and B_4C etc.

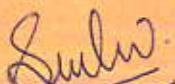
Wetting between the dispersoid and the matrix alloy is the foremost requirement during the preparation of Metal Matrix Composites (MMCs) especially with the casting/liquid metal processing technique. The basic principle involved in improving wetting fall under three categories: 1. Increase in the surface energies of the solid, 2. Decrease in the surface tension of the liquid matrix alloy, 3. Decreasing the solid /liquid interfacial energy at the dispersoid Matrix interface. Presence of magnesium fulfill all the above three requirements. The important role played by the magnesium is the scavenging of oxygen from the dispersoid surface, thus thinning the gas layer and improving wetting.

CONCLUSION

From all the result obtained it has been concluded that all the tribological properties go on increasing with the addition of B_4C and Mg content. As compared to previous research work all the properties obtained are better than previous one. Wear rate of specimen get increased as the hardness of specimen get increased.


Guide

Prof. S.M. Patil.


H.O.D

Prof. S.N. Hublikar


Director
Dr. A.C. Bhagali

**Shri Ambabai Talim Santha's
SANJAY BHOKARE GROUP OF INSTITUTES,
Faculty of Engineering, Miraj.
Department Of Mechanical Engineering.
ACADEMIC YEAR – 2018-19**

GLIMPSE OF PROJECT

TITLE OF PROJECT: Experimental Performance on Greenhouse Type Solar Dryer.

Name of Project Students:

1. Magdum Kedar Vidyadhar
2. Shirote Ajay Bhupal
3. Patil Sujit Basappa
4. Shaikh Shahsamnan Ibrahim

Guide: Prof. S. N. Hublikar

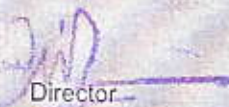
Abstract Due to high cost of fossil fuels and uncertainty regarding future cost and availability, use of sun drying of various agriculture products, vegetables, fruits, fish, milk products, food products etc. is being practiced largely since ancient times for preservation of agriculture products. Despite many disadvantages of natural drying, almost 80 % of farmers are using open sun drying method for drying their crops. Open sun drying, in which the product is spread on ground in open, is the simplest and cheapest method of drying. But there are considerable losses associated with it. So, the advanced method of drying i.e. greenhouse drying can also be used for drying the products and improve the quality.

Green house type solar dryer is good option for preserving leafy vegetables like spinach and fenugreek than refrigeration. Copper is best material for collector. The absorptivity of copper is good as compared to other materials.

Conclusion: Experiments were conducted in solar greenhouse dryer in order to study the drying characteristics of Spinach, Fenugreek and Coriander leaves during the month of February. It was found that Solar Greenhouse Dryer reduces the moisture content of Spinach leaves from 90% to 12.19% in 7 hrs. Therefore Solar Greenhouse Dryer is more suitable for producing high quality dried agricultural products.


Project Co-Ordinator
Prof. S. N. Hublikar


Head of Department
Prof. S. N. Hublikar


Director
Dr. A.C. Bhagali

Experimental Performance on Pneumatic operated cup sealer.

Name of Project Students:

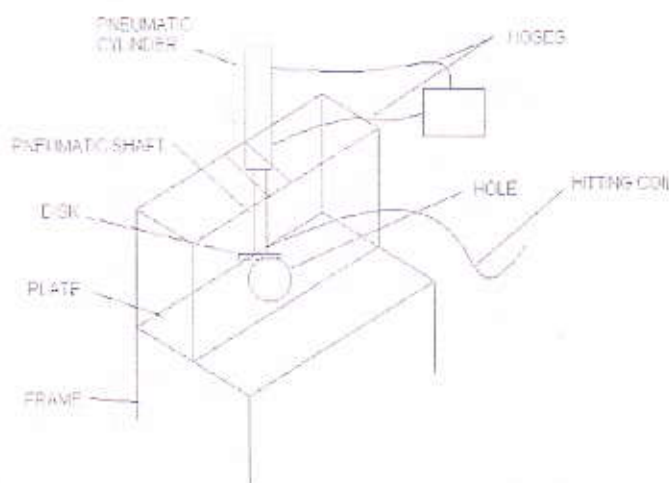
1. PACHORE ANIKET PRAKASH
2. PATIL PARSHWA ANIL.
3. MUTWALLI ARABAZ AIYAJ.
4. HERWADE ADITYA ARUN
5. HONKALAS SUDESH DURGESH

ABSTRACT

Known for energy efficiency and robust construction, we are offering our clients a wide range of Automatic Packing Machine. Our range is highly customized and can be availed in various designs and sizes. Further, our range is fabricated using quality raw material. These are manufactured with total harnessing and wiring facilitates to reduce on site installation time.

CONCLUSION

We conclude that this machine is very efficient than manual machine available in market, and somehow less efficient than automatic machine. This machine saves effort of the operator resulting in increase in productivity of machine.



Guide

Prof. S.S.MAGDUM

Hublikar
H.O.D.

Prof. S.N.Hublikar

Dr. A.C. Bhagali
Director
Dr. A.C. Bhagali



**Shri Ambabai Talim Santha's
SANJAY BHOKARE GROUP OF INSTITUTES,**
Faculty of Engineering, Miraj.
Department Of Mechanical Engineering.
ACADEMIC YEAR - 2018-19

GLIMPSE OF PROJECT

TITLE OF PROJECT: Design and fabrication of Automatic bar feeding and cutting mechanism for hack saw machines.

Name of Project Students:

Mr. Manoj Ajaykumar Pachore.

Mr. Omkar chandrakant kadam.

Mr. Aditya Shankar Chougule.

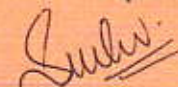
Mr. Nilesh Mahesh Pawar.

Mr. Suhas Shital Chougule.

Guide: Prof. S. N. Hublikar

Abstract: - To reduce human effort for repetitive work of cutter pieces of pipes as well as providing a convenient fixture to support and hold the pipes/rods during cutting. The subject is undertaken as a part of B.E mechanical project. It can be termed as smart machine. This needs more and more number of pieces to be cut for mass production of those components. The bar feeding mechanism is a metal cutting machine tool designed to feed the metal. The machine is exclusively intended for the mass production and they represent faster and more efficient way to feed the metal. The overall system is compact in size, light weight, modular and flexible to be used in small works jobs who need batch production. The setup overall configuration can be adopted by a semi-skilled worker easily and can vary the operations by making certain small changes. The system even has the potential to add up a PLC system to control its overall working with ease and with less effort provided. This system has the potential to adopt higher level of automation if desired in future.

Conclusion: We concluded that to overcome problems in conventional hacksaw machines, the proposed model of automatic bar feeding mechanism for hacksaw machine is helpful due to high efficiency, easy to operate and affordable price and completes all the expectations needed in the mini industries. Future scope of proposed work to increase the production rate cuts the metal bars easily.


Project Guide

Mrs. S. N. Hublikar


Head of Department

Mrs. S. N. Hublikar


Director
Dr. A.C. Bhagali

TITLE OF PROJECT: "Design and Development of Mechanical Solar Tracker"**Name of Project Students:**

- | | |
|------------------------------|--------|
| 1. Pathan Aalfaz Javed | (4001) |
| 2. Hulwan Sourabh Sambhaji | (4018) |
| 3. Kadam Vikrant Jalindar | (4034) |
| 4. Birajdar Vitthal Kallappa | (4036) |
| 5. Maner Nayef Iliyas | (4154) |

ABSTRACT

Presently conventional energy sources such as fossil fuels and coal are being used extensively for power generation. But these sources of energy are depleting and expected to be exhausted by the end of the year 2040. The basic problem associated with the conversion of the solar energy into useful form is that the solar modules used are stationery, so during the morning and evening hours the sun rays fall at an angle upon the module. This decreases the efficiency of the system as the duration of light falling perpendicular to the module is very less. The solar trackers can be more efficient if the input energy which is required for their operation is reduced by replacing electrical or hydraulic means by some mechanical linkages.

The project mainly concentrates on improving the efficiency of solar tracking system by mechanical means. The mechanical solar tracker could provide a solution to solar sun tracking mechanisms because of its design and reliability. Also its energy efficient design and non programmed operation gives lot of advantages. In the future, by utilizing the scientific advancement and research, the relative hurdles could be easily rectified and after some more amendment in the future it can be one of the most economically viable solar tracking mechanisms.

CONCLUSION

As the demand of non-conventional energy resources are increasing the total share of solar power in the field of non-conventional energy resources are also in increasing order which somehow create the absolute demand of reliable, sustainable, economic, relatively simple solar sun tracking mechanism. The mechanical solar tracker could provide a solution to solar sun tracking mechanisms because of its design and reliability.


Guide

Mr. A. R. Gore


H.O.D.

Mrs. S. N. Hublikar


Director

Dr. A. C. Bhaoli



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Shri Ambabai Talim Santha's
SANJAY BHOKARE GROUP OF INSTITUTES,
Faculty of Engineering, Miraj.
Department Of Mechanical Engineering.
ACADEMIC YEAR - 2018-19

GLIMPSE OF PROJECT

TITLE OF PROJECT: "DESIGN AND DEVELOPMENT OF BRIQUEETING MACHINE"

Name of Project Students:

1. Patil Dhanshri Sambhaji
2. Mangavate Neha Dadaso
3. Chougule Ankita Sanjay
4. Shaikh Tanjila Raifiqahemed
5. Ayer Ramesh Bhoj

Guide: Prof. V.R.Wale Sir

Abstract: The decreasing availability of fuel wood, coupled with ever rising prices of kerosene and cooking gas in India, has necessitated a consideration of alternative sources of energy for domestic and cottage level industrial use in the country. Energy from biomass is one such alternative. Biomass is a renewable energy source and can be processed into a convenient solid form using briquetting technology. One of the plants that could be used for solid fuel biomass is Water Hyacinth (WH). One of the methods for processing water hyacinth into low pressure biomass briquette is screw type briquetting machine. As so many methods may available for briquetting of biomass, screw type is the one which gives continuous output dislike other techniques. So that optimization of die design is very much essential for efficient operation of briquetting.

Conclusion: Low Pressure Screw type briquetting machine was designed and proper material selection was done. For the drive motor 2 hp capacity motor can produce a briquette at minimum pressure. The raw material availability for the device is quite good and the handling is quite simple.


Project Guide
Prof.V.R. Wale


Head of Department
Prof. S. N. Hublikar


Director
Dr. A.C. Bhagali

TITLE OF PROJECT

"Automatic Wire Winding Machine."

Name of Students:

- | | |
|-------------------------------|--------|
| 1. Yogesh Ravsaheb Patil. | (4007) |
| 2. Rushikesh Anil Patil. | (4028) |
| 3. Prithviraj Bhagavan Pawar. | (4046) |
| 4. Rajesh Dnyandev Sawant. | (4049) |
| 5. Sujit Anil Patil. | (4060) |

ABSTRACT

In this project "Design of Automatic Winding Machine" main attention is to reduce effort behind manually operated machine. And implement the idea of automation in coil winding machine at minimum manufacturing cost also in increases productivity of automated machine. This work will provide low operational cost, low power consumption, accuracy and flexibility to the system. In practical world of electrical engineering transformer coil is very sensitive and important part. By this Project we can also improve quality of winding as well as life of product. Automatic plants can work continuously and can decrease the gap between demand and supply. For such machine there is no need of labor so there is no human error. Without human error the quality of product is better and the cost of production would definitely decrease. The main motivation factor of this research is cost effective automation.

CONCLUSION

A low-cost filament Winding machine has been designed and fabricated. Following are the conclusion drawn from the performance test on the fabricated machine:-

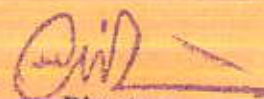
- The machine is capable of producing cylindrical winding of different diameters using former of different sizes.
- The weight of the mandrel could be reduced to decrease the load on the motor, rotating the mandrel.


Guide

Prof. M.A. Bote.


H.O.D.

Prof. S.N. Hublikar


Director

Dr. A.C. Bhagali



Shri Ambabai Talim Santha's
SANJAY BHOKARE GROUP OF INSTITUTES,
Faculty of Engineering, Miraj.
Department Of Mechanical Engineering.
ACADEMIC YEAR - 2018-19

GLIMPSE OF PROJECT

TITLE OF PROJECT: Performance Analysis of Green House Type Solar Dryer For Drying of Vegetables.

Name of Project Students:

Mr. Pawar Sagar Dattatray	(4101)
Mr. Patil Vijay Bhausaheb	(4114)
Mr. Patil Aniket Himatrao	(4141)
Mr. Yadav Saurabh Tanaji	(4142)
Mr. Patil Daji Sandipan	(4150)

Guide: Prof. B. B. Takale .

Abstract: - Due to high cost of fossil fuels and uncertainty regarding future cost and availability, use of sun drying of various agriculture products, vegetables, fruits, fish, milk products, food products etc. is being practised largely since ancient times for preservation of agriculture products. Despite many disadvantages of natural drying, almost 80 % of farmers are using open sun drying method for drying their crops. Open sun drying, in which the product is spread on ground in open, is the simplest and cheapest method of drying. But there are considerable losses associated with it. So, the advanced method of drying i.e. greenhouse drying can also be used for drying the products and improve the quality. In this report, a comprehensive review of open sun drying and greenhouse drying on chillies and tomatoes will be done.

Conclusion: To conducting this we conclude that In all the cases the use of green house solar dryer leads to considerable reduction of drying time in comparison to sun drying and the quality of the product dried in the green house solar drier was of quality dried products as compared to sun dried products and they are appropriate for production of quality dried fruits, vegetables . Drying in dryers is found to be more Faster than open drying. And with use of black plastic film it much more efficient. The chillies and tomato dried in the greenhouse dryer was completely protected from rain, insects and dusts, and the dried chillies and tomato were a high quality dried product compared to the high quality chillies the markets.

B. B. Takale

Project Guide

Mr. B. B. Takale

S. N. Hublikar

Head of Department

Mrs. S. N. Hublikar

Dr. A. C. Bhagali

Director

Dr. A.C. Bhagali

GLIMPSE OF PROJECT

TITLE OF PROJECT: "DESIGN AND DEVELOPMENT OF HYBRID THREE WHEELER"

NAME OF PROJECT STUDENTS :

- | | |
|------------------------------|--------|
| 1. SAGAR SUNIL ROKADE | (4061) |
| 2. ASIF SALIM SANDE | (4006) |
| 3. SAHIL AJAMUDDIN NANDREKAR | (4026) |
| 4. ABBAS BASHASAB PENDHARI | (4052) |
| 5. SHUBHAM SACHIN SHETE | (4158) |

ABSTRACT

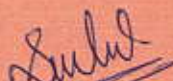
Battery assisted three wheeler is modification of existing three wheeler and driven by battery energy. This three wheeler is cheaper, simpler in construction & can be widely used for short distance travelling especially by school children, college students, office goers, villagers, postmen etc. It is very much suitable for young, aged, handicap people and caters the need of economically poor class of society. It can be operated throughout the year free of cost. The most important feature of this three wheeler is that it does not consume valuable fossil fuels thereby saving corers of foreign currencies. It is ecofriendly & pollution free, as it does not have any emissions. Moreover it is noiseless and can be recharged with the AC adapter in case of emergency and cloudy weather.

CONCLUSION

The results reveal that a battery powered tricycle is a feasible alternative for local travelling. The battery powered tricycle can be a replacement for auto rickshaw. The battery can be charged even during riding the tricycle. The ride is noise free, eco-friendly and cheaper than e bike or motor cycle.


GUIDE

Mr. S.D.SALE


H.O.D

Mrs. S.N.HUBLIKAR


DIRECTOR

Mr. A.C.BAGLI