

Sl. No.	Batch No.	Roll No.	Register No.	Name of the Student	Project Title	Area/Domain of the Project	Guide Name and Designation
1	1	19UMEC002	920419114016	JOYSON RALPH JEBADURAI V	Design and fabrication of Artificial lungs using 3D printing	Design	Dr.S.Semhil
2	1	19UMEC022	920419114014	JAGANNATHAN,S			
3		19UMEC011	920419114012	GOBINATH M			
4		19UMEC012	920419114024	MUTHUVEERASAL/APANDIAN M			
5	2	19UMEC014	920419114036	SUBHASHRAJ R	Design and Fabrication of Magemetic stirrer with hot plate and timer	Design	Dr.S.S.Saravankumar
6		19UMEC023	920419114002	ABISHEK S			
7		19UMEC027	920418114013	GOVARTHANAN T			
8		19UMEC013	920419114026	N.NAVANEETHAKRISHNAN			
9	3	19UMEC015	920419114023	D.L.MANOJ	Design and fabrication of speed detection system using Arduino UNO	Design	Dr.P.Narayanansamy
10		19UMEC030	920419114005	V.ARUNKUMAR			
11		19UMEC044	920419114031	RAMPRASATH C			
12	4	19UMEC042	920419114039	VENKATESHWARA R	Design and fabrication of sheet polishing machine	Manufacturing	Dr.P.Narayanansamy
13		19UMEC053	920419114301	ARUNKUMAR P			
14		19UMEC051	920419114318	S.Vijayakumar			
15	5	19UMEC046	920419114311	P.Parthiban	Design and fabrication of Multidrier	Thermal	Dr.S.Thangakasirajan
16		19UMEC054	920419114310	A.Pandi Kamal Krishna			
17		19UMEC004	920419114008	R.BALASUBRAMANIAN			
18	6	19umec031	920419114019	R.KUMARESH	Design and fabrication of anti-suicide fan rod	Design	Dr.B.Prabu
19		19umec039	920419114007	R.ASWIN SUNDAR			
20		19UMEC005	920419114029	V.Rahul			
21	7	19UMEC003	920419114043	A.Vimal	Design and fabrication of electric gokart	Automobile - Electric vehi	Dr.M.Prithviraj
22		19UMEC024	920419114033	K.Sathresh Kumar			
23		19UMEC016	920419114015	J.Jeeva Balan			
24	8	19UMEC062	920419114306	K.Manikanda Prabu	Design and Fabrication of managing waste using smart trash	Design	Er.T.Ramesh
25		19UMEC008	920419114006	K. Aswin			
26		19UMEC060	920419114308	Mohamed Ishaq A			
27	9	19UMEC058	920419114303	Dhanan N	Design and Fabrication of Peanut Peeler	Manufacturing	Er.S.Chithambarakumar
28		19UMEC057	920419114312	Parakaram A			
29		19umec017	920419114044	YUVARAJ K			
30	10	19umec029	920419114027	NAVEEN D	Design and Fabrication of Flour Sieving machine	Manufacturing	Er.D.Palanikumar
31		19umec006	920419114030	RAJESH KANNAN R			

32	19umec059	920419114302	N BALA SUDHARSAN	Design and Fabrication of lost cost Spin coating setup	Manufacturing	Dr. B. Balavairavan
33	19umec050	920419114313	S Ragul			
34	19umec061	920419114305	R. HARIHARAN			
35	19umec047	920419114307	Mickael Rai P			
36	19umec056	920419114309	Nagaraj S	Intelligent Shopping cart using Arduino UNO	Design	Er. R. Sakthivelmurugan
37	19umec007	920419114020	Lokesh S			
38	19umec032	920419114028	Praveen Raj R			
39	19umec040	920419114041	Vignesh K B	Design and fabrication of Active End Effector Sphere Mechanism	Design	Er. N. R. Madhan
40	19umec037	920419114004	Aravindan C			
41	19umec010	920419114018	KARTHI S			
42	19umec001	920419114025	Narendran, K			
43	19umec026	920419114003	Ajay Kumar	Design and Fabrication of Fencewire netting setup	Design	Er. B. K. Partihgan
44	19umec033	920419114038	Thomas Livin Daniyal A			
45	19UMEC025	920419114001	AAKASH KANNAN U			
46	19UMEC009	920419114009	BHUVANESH PANDIAN P	Design and Fabrication of Wireless car Recharging system	Automobile	Er. S. Devaraj
47	19UMEC036	920419114017	KALIDASAN M			
48	19UMEC045	920419114304	S Ganesh Karthik			
49	19UMEC048	920419114319	J Vinish Kumar	Design and fabrication of Rice Transplanter	Design / Agriculture	Er. T. Suresh
50	19UMEC052	920419114315	M. Senthil Kumar			
51	19UMEC063	920419114317	SIVA SUBRAMANIAN S			
52	19UMEC049	920419114316	SIVAPACKIA R	Design and fabrication of Intelligent Reverse Braking system	Automobile	A. Sankara Narayana Mur
53	19UMEC055	920419114314	RATHISH S			
54	19umec035	920419114034	Siva Ananth E			
55	19umec034	920419114042	Vignesh N. A	Design and fabrication of mobile 3D printing for medical and industrial purpose	Manufacturing	Er. K. Muruganathan
56	19umec043	920419114035	Sivabarath K			
57	19UMEC019	920419114021	MADHAVAN G			
58	19UMEC028	920419114010	DEEPAAN KAARTHIK. T	Design and fabrication of palm tree climber	Agriculture	Er. P. Senthamaralkannan
59	19UMEC038	920419114011	GNANA PRAKASAM G			
60	19umec020	920419114032	Rathina Siva Malayappan G			
61	19umec041	920419114040	Vignesh G	Design and fabrication of Stair Climbing Trolley	Design	Er. S. Muthumatarajan
62	19umec021	920419114022	Madhavan P			

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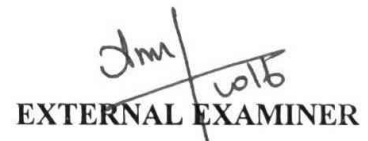
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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

- The main objective of our project is to design an polishing machine for an litho sheet.
- It is mechanism in which the circular motion is converted into oscillating motion.
- Litho sheet is polished by our machine for printing purpose.
- We construct an for low cost for industry requirement.
- By use of this machine we can increase the production.

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INTERNAL EXAMINER


10/6

EXTERNAL EXAMINER

ABSTRACT

In this project electric vehicle systems are based on various modules that should ensure the high power and stability of the vehicle on the track. The majority of these components are linked to the charging mechanism. In this regard, Wireless power transfer system is a practical method to solve electric vehicle charging and reduce the maintenance cost of batteries. Wireless recharging has long been common with pure electric vehicles and is designed to allow charging even when the vehicle is in motion. However, it is difficult to analyse this method since its operating philosophy is complex, particularly with the existence of several variables and parameters. Wireless power transfer system used to recharge the battery. The receiver coils have been added to maximize charging power of the battery that can describe and measure source-to-vehicle power transmission even though its vehicle motion.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

Agriculture sector is the main source of food. This sector also forms country's backbone and provides employment. With increasing population, it is necessary to produce food in a sustained manner. This can be accomplished by mechanizing the farming operations. Another advantage of mechanization is that it circumvents the problem of labor shortage when needed in the peak time of land preparation and harvesting. It also increases the crop yield through proper preparation of land, crop protection, efficient irrigation and minimizing the loss during the harvest. This paper focuses on the mechanization of rice planting. Finally, we have designed and fabricated the rice transplanter for fulfilling the above mentioned criteria.

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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

Industry 4.0 is the current trend of automation and data exchange in manufacturing technologies, including cyber-physical systems, the Internet of things (IOT), cloud computing and cognitive computing and creating the smart factory. This research work also emphasizes the application of Industry 4.0. Additive manufacturing is the construction of a three dimensional object from a CAD model or a digital 3D model. It can be done in a variety of processes in which material is deposited, joined or solidified under computer control with material being added together (such as plastics, liquids or powder grains being fused), typically layer by layer. Mobile 3D printer would be the future thirsty of research area like mobile hospital, mobile robotics in the modern world.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

This paper presents the concept of Design and Fabrication of Flour Sieving Machine, which is mainly carried out for production-based small scale industries. In Today's world every task has been made quicker and fast due to technological advancement, every industry desires to make a high productivity rate, maintaining the quality and standard of the product at a low average cost. In this work, a conceptual model of a machine, which is capable of performing different operations simultaneously and easily, is developed. In this machine, the main shaft is driven using a motor. The table is fixed with the crank, which moves the tray to vibrate it and act as a separator. The motor shaft is mounted to pulley mechanism. The slider-crank mechanism is used for reciprocating operation of separator. Thus the Design and fabricating of the Sieving Machine is to help the small scale industrial people. The advantage is to obtain the easy separation of things according to mesh, reduction in cost associated with power usage, increase in productivity rate, produce less space, etc.

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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

Small-scale peanut shred equipment has been designed and used to meet various needs and scales. Groundnut product demand is on the increase and the application is largely dependent on the cleanness of the nuts. The materials used in the fabrication of the machine are sourced locally so as to ensure that it is cheap, affordable and easily maintained by the peasant farmers. In the beginning the peanuts were separated from its shells by the workers. They simply decoct the groundnut by their hands and separate the peanuts from its shell. The new and small formers can start their business by investing less capital. So working on the above points, we design and fabricate a new medium production capacity machine. This is a reason why there have been a wide range of machines built to support farmers in peanut production lines. Especially, in a peanut shell peeling stage, which is also a labour-intensive process and the most time-consuming in the production of peanuts. Designing and improving the peanut shell peeling machine with a portable size, acceptable productivity, easy assembly and replace parts, are absolutely necessary. The operation of the machine bases on the principle of two rollers. The two rollers are rotating inside the groundnut to crush. The friction created between peanuts and rollers that break the bridge of the hard shells. Afterwards, peanuts and shells would be sorted by separator. Ultimately fine peanuts are brought to vibrate and classify.

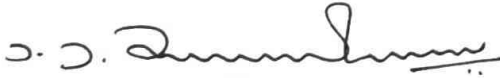
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Certified that the project report “INTELLIGENT SHOPPING CART USING ARDIUNO” is the bonafide work of “P.MICKAEL RAJ (920419114307), S.NAGARAJ (920419114309) & S.LOKESH (920419114020)” who carried out the mini project work under my supervision.



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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

Shopping cart is a wheeled cart which is used in shop or super market, to help the customers for transport of merchandise within the shopping premises. The paper aims to design and develop the intelligent shopping cart, which is capable of following humans along with carrying merchandise loads while shopping. It will be more helpful for elder and handicapped people as they feel fatigue and tired while shopping by pushing the cart. The intelligent cart is mounted with Infrared sensors which help the cart to move forward and backward direction. Arduino UNO is used as the main controller of the intelligent cart. It is driven with four 12V DC gear motor which is controlled by a L298N motor driver. The design of cart is modified slightly for implementing the proposed methodology. Some modifications have been achieved at the lower portions of the cart by the way of design of brackets for mounting the DC motors and also for mounting the sensors along with controllers. Based on the Arduino Coding and circuit connection, the intelligent cart sense the humans or obstacles with the output of IR sensor by maintaining the distance between cart and human. This cart will be useful for all customers in the shopping mall by eliminating the human efforts by pushing or pulling the shopping cart while shopping. This intelligent cart will definitely make the new trend in all the shopping malls and retail stores.

Keywords: Intelligent Cart, Arduino UNO, 12V DC Gear Motor, L298N Motor driver, Infrared sensor.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

This paper describes the working of a Palm tree climbing machine. Primary goal of the project is to design a palm tree climbing device for farmers and residents. It is very difficult to climb on a palm tree due to the constant cylindrical structure, spikes and single stem. In other type of trees there will be branches for holding and to support the climber and not in Palm Tree. A professional climber with proper training only is able to climb palm tree. Due to the risk involved, nowadays a very few are coming forward to climb on palm trees. Considering this scenario, a device which will help the user to climb palm tree easily will be useful for the people who is having large palm cultivation as well as residents who is having less palm trees. This kind of devices will encourage more people to come forward to agricultural sector.

Keywords: Palm tree, GI pipe.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

Road accidents have been very common in the present world with the prime cause being the careless driving. The necessity to check this has been very essential and different methods have been used so far. However with the advancement in the technology, different governing bodies are demanding some sort of computerized technology to control this problem of over speed driving. At this scenario, we are proposing a system to detect the vehicle which are being driven above the given maximum speed limit that the respective roads or highway limits. The overall project is divided in three categories; speed detection, image acquisition and transfer and image processing. Speed detecting device works on the principle of Doppler Effect using microwave Doppler radar sensor. The speed is compared with the preset threshold and camera is triggered if the speed limit exceeds. Acquisition and transfer of image is done by a HD camera interfaced with raspberry pi. Arudino UNO is connected to the server via internet. The server runs an Image processing program which isolates the license plate from picture frame. The characters in the number plate is digitized and sent to the authority residing in the next station where the vehicle is spotted

Keyword:

Speed detector, arduino UNO, IR sensor, python programming.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

The multi drier is used to dry food products. It is the controllable drying process for vegetable drying. multi drier system is capable of drying food products in all weather conditions. In cloudy conditions open sun drying, solar drying is not possible. But in the multi drier system overcomes it. As for the better performance of the multi drier system , the drying chamber is maintained at the temperature of 40-70⁰C by using a heater and the inlet air temperature is sensed by a thermostat and thus depending upon the inlet dry air temperature heat is added in the chamber which is not achieved in open solar drying process. The multi drier system is to maintain the quality of the food products by removing its moisture content and also it overcomes the difficulty of controlling the moisture removal rate in open sun drying.

Keywords: Multi Drying, Moisture content, Performance.

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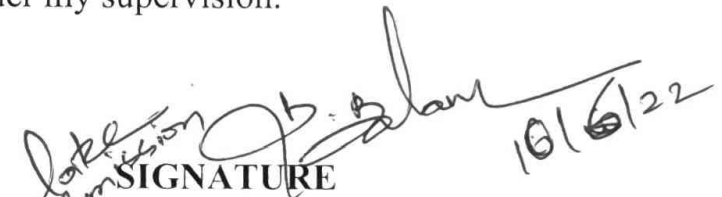
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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

Spin coating is a technique used to spread uniform thin films on flat substrates by centrifugal force. The apparatus used for spin coating is called a spin coater, or a spinner. A solution of material is dispensed onto the center of a wafer, which is then rotated at high speed. Spin coating is widely used in micro fabrication of functional oxide layers on glass or single crystal substrates using sol-gel precursors, where it can be used to create uniform thin films with nanoscale thicknesses. It is used intensively in photolithography, to deposit layers of photoresist about 1 micrometer thick. Photoresist is typically spun at 20 to 80 revolutions per second for 30 to 60 seconds. It is also widely used for the fabrication of planar photonic structures made of polymers.

One advantage to spin coating thin film is the uniformity of the film thickness. Owing to self-leveling, thicknesses do not vary more than 1%. However, spin coating thicker films of polymers and photoresist can result in relatively large edge beads whose planarization has physical limits.

Spin coating is widely used in microfabrication of functional oxide layers on glass or single crystal substrates using sol-gel precursors, where it can be used to create uniform thin films with nanoscale thicknesses. It is used intensively in phA doubling of the spin speed thus reduces the thickness of the resist film by a factor of approximately otolithography, to deposit layers of photoresist about 1 micrometre thick.

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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

This project aims at developing a mechanism for easy transportation of heavy loads over stairs. The need for such a system arises from day-to-day requirements in our society. Devices such as hand trolleys are used to relieve the stress of lifting while on flat ground; however, these devices usually fail when it comes to carrying the load over short flight of stairs. This project offers an alternative to carrying load in buildings that do not have elevators. This project attempts to design a stair climbing trolley which can carry heavy objects up the stairs with less effort compared to carrying them manually. In our project, the trolley is equipped with Tri-Star wheels which enable us to carry load up and down the stairs. It also eases the movement of trolley in irregular surfaces like holes, bumps. This trolley is fitted with motor and battery which can be used to automatically discharge the loads carried by the trolley. The project focused on both an average family's economic needs and the efficiency requirements of any industry.

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Certified that this project report “**DESIGN AND FABRICATION OF MANAGING WASTE USING SMART TRASH**” is the bonafide work of “**K.ASWIN (920419114006), J.JEEVA BALAN (920419114015), K.MANIKANDA PRABHU (920419114306)**” who carried out the project work under my supervision.



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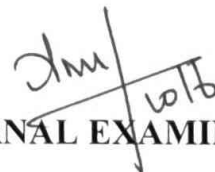
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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

As you know the world is growing with tremendous developments with new technologies and innovation and at the same time there is waste dumping around surrounding due to lack of proper management and recycling process. In our daily day life, we come across many quotes like "avoid plastic, "Go green" etc and also collecting plastic waste is also big issue in our nation, in order to achieve and manage these goals we took the waste management problem. we also consider that waste management is everyone's responsibility though most of them are careless, so in order to motivate them we planned to make curiosity among them by giving them money for their wastes. As this problem is faced by every individual, the whole society will be benefited.

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Certified that the project report“**DESIGN AND FABRICATION OF 3D PRINTED ARTIFICIAL LUNGS**”is the bonafide work of “**V.JOYSON RALPH JEBADURAI (920419114016)&GOBINATH.M(920419114012)&JAGANATHAN.S (920419114014)**”who carried out the project work under my supervision.


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INTERNAL EXAMINAR


EXTERNAL EXAMINAR

ABSTRACT

During COVID, lungs of patients were affected heavily. This project focus on the Artificial lung design on the 3D printing machine as an prototype for an future development on this 3D Printing field. The main purpose for this project is to focus on the future development on the Artificial Lungs for many Health issues caused in lungs.

There exists a growing demand for new technology that can take over the function of the human lung, from assisting an injured or recently transplanted lung to completely replacing the native organ. Many obstacles must be overcome to achieve the lofty goals and expectations of such a device. An artificial lung must be able to sustain the gas exchange requirements of a normal functioning lung. Pursuant to this purpose, the device must maintain appropriate blood pressure, decrease injury to blood cells and minimize clotting and immunologic response. In this project, we have designed and fabricated artificial lungs using 3D printing technology.

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Certified that the project report “DESIGN AND FABRICATION OF ELECTRIC VEHICLE” is the bonafide work of “V. RAHUL (920419114029), A. VIMAL (920419114043) & K. SATHEESH KUMAR (920419114033)” who carried out the project work under my supervision.



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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

The Objective of our project is to make a vehicle that has to be powered Electrically. In order to provide a electrically operated vehicle, Electric motor is a mandatory component that provides a required mechanical output. The main aim of this Electric Vehicle is to reduce the usage of organic fuel and to design the electrically operated vehicle with the help of electric motor. The batteries are used to drive the motor. The other important objective of this vehicle is to control the pollution, provide safety to the driver, lightweight, cost efficient, low maintenance. Usually, the vehicle uses the internal combustion engine to generate power. They cause pollution by emitting exhaust gases and they create unwanted noise. To overcome this problem Electric Vehicle will be the right solution. Instead of using IC engine, batteries and electric motor can be replaced to generate required power output. They are really cost effective and ecofriendly. The frame structure, chassis and motor design must be done precisely. These parts of the vehicle can be designed and assembled by using design software such as autocad,solidworks and Creo. In order to reduce weight of the Electric vehicle length of the vehicle will be shortened. Some important aspects while constructing the Electric Vehicle are material selection, braking system, Steering system. The selection of motor and batteries are very important. Now a days the cost of fuel is too high, so Electric Vehicle plays a vital role in this situation. The output power that is required to drive a vehicle is mainly depend on selection of motor and corresponding controller unit.

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Certified that the project report “**DESIGN AND FABRICATION OF ACTIVE END EFFECTOR SPHERE MECHANISM**” is the bonafide work of “**R.PRAVEEN RAJ(920419114028), K.B.VIGNESH(920419114041), C.ARAVINDAN(920419114004)**” who carried out the mini project work under my supervision.


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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

The main objective of our project is to design an active sphere mechanism in between two driveshafts and robotic arm. Active joint is a mechanism in which it is enhanced by interactions of spherical gears. Three degree of rotational sphere joint with a simple and compact mechanism, which can realize a rotation around an any direction rotational axis smoothly and arbitrarily when it is on rotating. Then the sphere joint is developed with good dynamics and lower friction and experimental verification on the proposed mechanism is performed. The effectiveness of the mechanism principle is outlined by some experimental results.

KEYWORDS

Development and Prototyping, Industrial robots, Mechanism design, Spherical gear, Automation.

JUNE 2022

BONAFIDE CERTIFICATE


Certified that the project report “MAGNETIC STIRRER WITH HOT PLATE AND TIMER” is the bonafide work of “M.MUTHUVEERASALA PANDIAN (920419114024), K.SUBHASH RAAJ (920419114036), ABHISHEK KUMAR (920419114002) & T.GOVARTHANAN(920419114013)” who carried out the project work under my supervision.



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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

Magnetic stirrers and hot plates are key components of science laboratories. However, these are not readily available in many developing countries due to their high cost. This article describes the design of a low-cost magnetic stirrer with hot plate from recycled materials. Some of the materials used are neodymium magnets and CPU fans from discarded computers and recycled electrical components from old circuit boards. This prototype was compared with a commercial magnetic stirrer with hot plate. It was noted that high temperatures were reached at similar rates, and the stirring speed was also comparable between the two. With this prototype, which costs 80% less than commercial ones, magnetic stirrers with hot plate can be readily available to enhance teaching and learning in science laboratories that need them most. After the invention of magnetic stirrers there are some good positive feedback from the laboratories, like they said that with the help of the magnetic stirrer it is easy to stir a solution by varying the temperature and the speed of the stirring. So that they could get the good results of the solutions. By adding advantage the set up of the timer is another key way for application of the device in more and more applications all over the world. Several research studies have shown that science laboratories provide effective venues for students to observe and understand the world. Meaningful learning is enhanced even further when students have the opportunity to use equipment and materials during their investigations. One piece of equipment that is widely used in science laboratories is the magnetic stirrer. It is made with a magnet that rotates at adjustable speeds, thus inducing the spinning of a magnetic stirrer bar in a reaction vessel. This rotation allows efficient mixing and stirring of any liquid contained within through the strong fluid motion generated by the bar. This equipment ensures continuous stirring within a reaction vessel over periods of time; with a hot plate, it can allow a wide variety of synthetic reactions to occur.

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Certified that this project report “INTELLEGENT REVERSE BRAKING SYSTEM” is the bonafide of “RATHISH.S (920419114314), SIVAPACKIA.R (920419114316), SIVASUBRAMANIAN.S (920419114317)” Who carried out the project work under my supervision.


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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

The technology of pneumatics has gained tremendous importance in the field of workplace rationalization and automation from old-fashioned timber works and coal mines to modern machine shops and space robots. It is therefore important that technicians and engineers should have a good knowledge of pneumatic system, air operated valves and accessories. The air is compressed in an air compressor and from the compressor plant the flow medium is transmitted to the pneumatic cylinder through a well laid pipe line system. To maintain optimum efficiency of pneumatic system, it is of vital importance that pressure drop between generation and consumption of compressed air is kept very low.

The aim is to design and develop a control system based an intelligent electronically controlled automotive braking system is called “INTELLIGENT REVERSE BRAKING SYSTEM”. Sensor Operated Pneumatic Brake is consists of IR transmitter and Receiver circuit, Control Unit, Pneumatic braking system. The IR sensor is used to detect the obstacle. There is any obstacle in the path, the IR sensor senses the obstacle and giving the control signal to the breaking system. The pneumatic braking system is used to brake the system.

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Certified that the project report “**DESIGN AND FABRICATION OF FENCE WIRE NETTING SETUP**” is the bonafide work of “**AJAY KUMAR R (920419114003), KARTHIK S(920419114018), NARENDRAN K (920419114025)& THOMAS LIVIN DANİYAL A(920419114038)**” who carried out the project work under my supervision


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INTERNAL EXAMINER


EXTERNAL EXAMINER

ABSTRACT

The objective of our project is to make a fence wire netting setup. In order to provide a electrically operate the machine, electric motor is a mandatory component that provides a required mechanical output.

The main aim of this fence wire netting is to reduce the space and to design the fence wire netting setup with the help of electric motor. The batteries are used to run the machine. The other important of this setup is to control the pollution from the normal machine, to reduce the cost, to reduce the work area.

Usually the setup is having no pollution. In the regular machine they use fuel to run the machine, It will produce more pollution.

To overcome the problem in regular machines we can use this setup will be the right solution. They are really cost effective and eco-friendly. The structure, chassis and motor design must be done precisely. These parts of the setup can be designed and assembled by using design software such as autocad, solidworks and creo.

In order to reduce weight of the regular machine length of the setup will be shortened some important aspects while constructing the setup are material selection, MS seamless pipe, MS flat & plate. The selection of motor and batteries are very important.

Now a days the cost of fuel is too high, So this setup is special one. The output power is required to rotate the MS flat is mainly depend on selection of motor and corresponding battery power.

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INTERNAL EXAMINER



EXTERNAL EXAMINER

ABSTRACT

The Anti Suicide ceiling fan rod is used when somebody tries to hang from ceiling fan for committing suicide. It will fail to do so because the fan and the person will land on the ground safely. Anti suicide ceiling fan rod can be used in any ceiling fan. In order to avoid suicide by hanging from a ceiling fan, a specially designed fan Down Rod (pipe) has been developed, which can be used in place of an ordinary Fan Down Rod / pipe for hanging fan to save life. Unlike ordinary Fan Down Rod, the Smart Fan Rod has two parts, upper and the lower, which are held together with the help of a helical spring mechanism. Any attempt to get hanged from fan fitted with Smart Fan Rod will get foiled, as due to excess load on the fan, the Fan Rod gets separated from its joint and the load gets transferred on the spring, which expands and a person trying to hang from fan will land on the ground safely and life will get saved. As the spring holds the fan, the fan always remains above the head, causing no injury.

Keywords: Fan rod /pipe, Helical spring mechanism