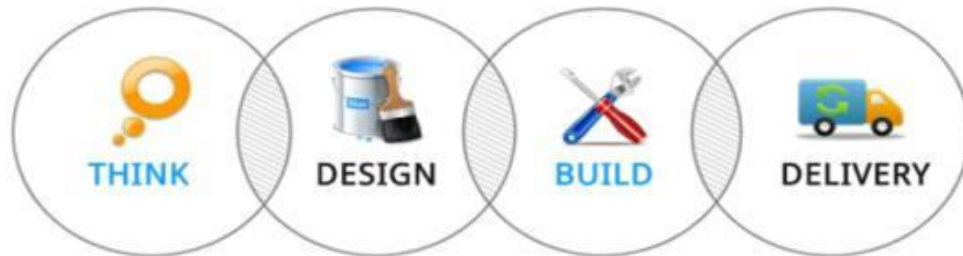


INDUSTRIAL BASED PROJECTS 2018 – 19



TECHNOFIST a leading student's project solution providing company established in Bangalore since 2007. With perfect infrastructure, lab set up, Work shop, Expertise faculties make us competitive service providers.

Here is the list of project titles 2018 and 2019.



DOORS OF TECHNOLOGY:

- AGRICULTURAL BASED PROJECTS
- AUTOMOBILE BASED PROJECTS
- COMPOSITE MATERIAL BASED PROJECTS
- INDUSTRIAL BASED PROJECTS
- MECHATRONICS BASED PROJECTS
- SOLAR AND POWER GENERATION CONCEPTS
- AERONAUTICAL BASED PROJECTS
- PEDAL OPERATED BASED PROJECTS
- PNEUMATICS AND HYDRAULICS BASED PROJECTS

2018 - 19 INDUSTRIAL BASED PROJECTS

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| | <p>TITLE - FABRICATION OF 3 IN 1 MULTIPURPOSE MECHANICAL MACHINE USING WHITWORTH MECHANISM (TIN01)</p> <p>This machine is designed for the purpose of multi operations ie,, Drilling , Hacksaw Cutting and shaping operations. This machine performs multipurpose operations at the same time with required speed and this machine is automatic which is controlled or operated by motor which is run with help of current</p> |
| | <p>TITLE - FABRICATION OF RAGI BALL MAKING MACHINE (TIN02)</p> <p>Ragi is used most commonly as south Indian food. The ragi ball is most important part of the food for most of the people. Ragi is potentially the best source of calcium and a good source of protein as well. The ragi dough can be made effectively by eliminating the dough matter. In this project, the ragi ball is made by combining beaters/agitator and screw extruder. The beaters helps in continuous mixing of the ragi dough at proportionate quantity. The extruder is used to fill the die with ragi dough so as to get the shape of the die (spherical). Continuous heating is done so as to maintain the desired</p> |
| | <p>TITLE - FABRICATION OF AUTOMATIC PESTLE AND MORTAR MACHINE (TIN03)</p> <p>The 3 in 1 Agate Mortar and Pestle holds multiple head to allow grinding of 1, 2 or 3 samples are the same time. The Laboratory Automatic Mortar and Pestle provides efficient, uniform grinding and its transparent cover permits closed grinding.</p> |

TITLE - FABRICATION OF AUTOMATIC 2,3 POINT DRILL MACHINE (TIN04)

Sensing the wood plates the automatic drilling machine comes to the target position through the automatic lift system. The drilling machine drills the particular position and moving up direction then , The wood plate will rotate for next position. The drilling machine drills the next position also like this the machine will drills the no of wood plates and different positions also.

TITLE - FABRICATION OF CONVEYOR BELT WITH AUTOMATIC PICK AND PLACE AND DIGITAL COUNTER (TIN05)

We are developing a belt conveyer using DC motors, which are mechanically connected to each other. On the other end we will have an automatic pick and place mechanism. This pick and place is automated using a controller which is motor driven. This pick and place module will move to a particular place, pick's the components and place it on the conveyer belt. At the end of the belt we will have a IR sensor, once the materials placed on the belt breaks the IR barrel a digital counter will start counting.

TITLE - FABRICATION OF CEMENT PLASTERING MACHINE (TIN06)

This innovative machine is unique and perhaps of wall plastering machine which is ideally suitable for the construction or building industry .The human effort can be eliminated to considerable extent as the machine can automatically plaster the wall by moving up and down in the vertical direction.

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| | <p>TITLE - FABRICATION OF REMOTE OPERATED DRILL MACHINE (TIN07)</p> <p>The main aim for our project has been to develop a remote operated drill machine, which is solar and wind powered. In this machine we use a solar panel and horizontal wind turbine to capture and convert solar and wind energy into electrical energy which in turn is used to charge four 12V batteries, which then gives the necessary power to a shunt wound DC motor. Consequently, in this project an attempt is made to make the electric and mechanical systems share their powers in an efficient way.</p> |
| | <p>TITLE - FABRICATION OF SAFEST SAW MILL - LIFE SAVOUR FOR INDUSTRIAL APPLICATIONS (SOLAR OPERATED) (TIN08)</p> <p>The main aim of is to guard and product the safety of the workers in saw mills and to ensure that no casualty is occurred during the cuttings works. When they touch the blade by mistake it will cut the hand To overcome this problem, we have designed a unique system i.e., auto safety device which can be sited at such places and is capable to stop automatically It is save the life of men who is serving with this machine It will automatically stop when any one touch the cutting blade.</p> |
| | <p>TITLE - FABRICATION OF AUTOMATIC CONVEYOR BELT WITH PICK AND PLACE WITH DIGITAL COUNTER (TIN09)</p> <p>A belt conveyer system consists of an endless belt of resilient material connected between two flat pulleys.. This pick and place is automated using a controller which is motor driven. This pick and place module will move to a particular place, pick's the components and place it on the conveyor belt. At the end of the belt we will have a IR sensor, once the materials placed on the belt breaks the IR barrel a digital counter will start counting. With reference to the above description we are developing a conveyor belt with automatic pick and place and digital counter.</p> |

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| | <p>TITLE - FABRICATION OF BOARD CLEANING MECHANISM WITH RACK AND PINION MECHANISM (TIN10)</p> <p>This project consists of nut and screw mechanism. Square thread screw is coupled to motor. When motor shaft rotating, screw also rotating and nut slides linearly on screw. Duster is attached to nut. When nut slides, duster also slides and we will get desire rubbing effect. To design an automatic board eraser using basic scrap parts like power screw, bearing, nut, eraser, guide ways, power supply</p> |
| | <p>TITLE - DEVELOPMENT OF TANK CLEANING MACHINE (TIN11)</p> <p>Aim of this project is to develop a mechanical system for cleaning domestic cylindrical water tank. The mechanical system includes motor, shaft, battery and Arms with brushes. The arms are adjusted according to the dimensions of the tank, once adjusted the machine is switched ON , the motor draws power from the battery and rotates the shaft with low RPM and high torque ,the brushes mounted on the arms starts scrubbing the inner walls of the tank.</p> |
| | <p>TITLE - SHEET CUTTING USING GENEVA MECHANISM (TIN12)</p> <p>The system consists of a constantly rotating disk coupled with a slotted disk, which gives rise to the desired discrete motion. A rotation of $2p$ radians of the former causes $2p/N$ radians of rotation of the latter, where N is the number of slots available on the slotted disk. Thus, one complete rotation of the slotted wheel requires N complete rotations of the other disk, thereby also increasing the total time period. By using geneva mechanism we can be able to cut thin sheet metal . DC geared motors and spur gears are used in the project .</p> |

TITLE – SEWAGE CLEANING MACHINE (TIN13)

In this project the proposal concept is to replace the manual work in drainage cleaning by automated system. Now a day's even through automation plays a vital role in all industrial applications in the proper disposal of sewages from industries and commercials are still a challenging task. Drainage pipes are using for the disposal and unfortunately sometimes there may be loss of human life while cleaning the blockages in the drainage pipes. To overcome this problem and to save the human life we implement design “automatic sewage cleaning system”. We designed our project to use this in efficient way to control the disposal of wastages and with regular filtration of wastages, clearance of gaseous substance are treated separately and monitor the disposal of frequent manner.

TITLE – MULTAEOOD OPERATION USING BELT AND PULLEY DRIVE (TIN14)

Wood working is anything that performing any operation on wood in any way for some useful work. This multipurpose wood working machine has ability to perform four operations such has Planing, Edge forming, Cutting, and Drilling on a single machine. All the four tools driven by single motor. The belt drives are used can be engaged and disengaged whenever necessary. In this competitive world people are very passionate for their home interior design. In order to produce interior design models carpenter are using separate machines for conducting particular operations so which leads to more cost, material handling is more. In order to avoid these problems this concept is developed. Hence, using this is all about combining planing, drilling, forming and sawing machines in a single platform to reduce the investment cost and floor area and made work easy.

TITLE – GEARLESS POWER TRANSMISSION (TIN15)

Also called elbow mechanism. It is an ingenious link mechanism of slider and kinematic chain principle. Transmits power at any angle without utilising gears. Transmits the power between two shafts whose axes are at 90 degree through bent links. Three links slide relatively according to the motion given to input shaft. Due to this, the rotational motion of input shaft is converted into sliding motion of links which is then converted to rotational motion of the output shaft.

TITLE – DEVELOPMENT OF FLOOR CLEANING MACHINE (TIN17)

In our project is very simple drive mechanism and easy to operate any persons. The size of the machine is also portable, so we can transfer from one place to other place very easily. The **floor cleaner** is simple, modern house holding device; even children can also operate it easily with safety. It is very important one for each and every houses and hospitals etc.

Dc geared motor, mild steel angles, brushes and various other components are used .

TITLE – DEVELOPMENT OF CHAIR LESS CHAIR (TIN18)

Today the world is now going to be compact. For suitability to the world, things are also going to be made of compact and smaller in size. Now the battle is also done between machines instead of man to man. To win this war and to thought regarding another parallel motive force to the automobile, we have thought of manufacturing "Chairless Chair" through the mission of the project. The exoskeleton based pneumatics support is basically a "chair" which is clothing like an exoskeleton, allowing users to walk or move at certain speed with the device while they work. This chair helps to rest the leg muscle when you are working for a long time. This new and innovative chair helps to comfort to thighs and back. It keeps back straight and reduces pain in the back as well as thighs. The overall weight of this exoskeleton pneumatic chair is only one kg so it doesn't burden on a wearer.

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